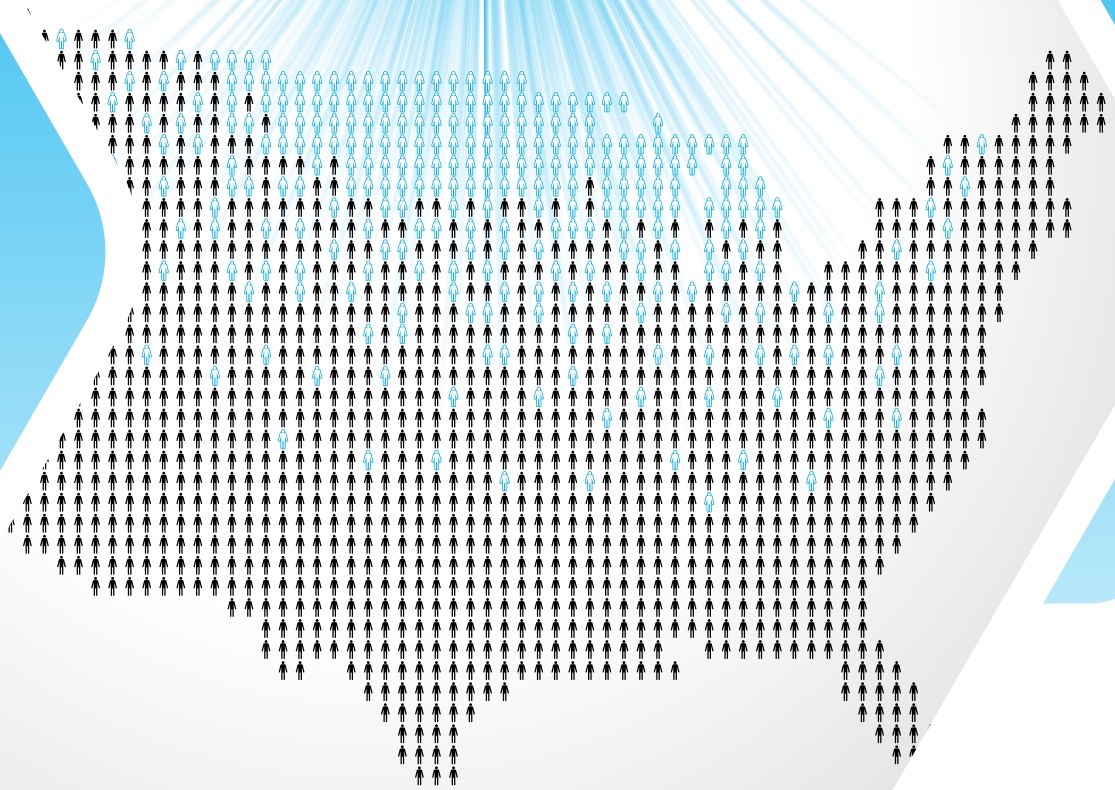
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# Impact of AI on workers in the United States



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2025

SPECIAL REPORT

# AI Impact on Workforce in the United States

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1. EXECUTIVE SUMMARY
   - 1a. Introduction
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     - > AI Score Descriptions
   - 1b. Overview and Key Take-Aways
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# 1. EXECUTIVE SUMMARY

## 1a. Introduction

### *AI's Disruptive Impacts: A Deep Dive into the U.S. Labor Market*

The U.S. economy stands on the precipice of a significant transformation driven by the relentless march of Artificial Intelligence (AI). While the potential benefits of AI can be huge, its impact on the labor market is a topic that warrants close scrutiny. This study delves into the heart of this issue, systematically measuring the disruptions and transformations AI will bring to various industries and occupations within the U.S. workforce.

Therefore, the objective of this study is to critically assess how AI is going to disrupt the U.S. labor market. The methodology of this study's analysis is to systematically measure AI's disruptions and impacts in various industries and occupations in the U.S. labor market. Using a unique dataset developed by the National Science Foundation (NSF) collected from multiple sources, this is a robust approach to achieve this objective.

This research draws on numerous U.S. government data sets, such as the O*NET program (1), which contains data from the U.S. Department of Labor. This dataset provides detailed information describing the skills required for thousands of occupations. In addition, our research utilizes the twenty industries found in the North American Industry Classification System (NAICS), which covers most industries and occupations in the U.S. labor market.

**The Classification of the Industries**

This analysis starts with NAICS industries (North American Industry Classification System). It's a system used by the United States, Canada, and Mexico to categorize businesses into their respective industries. This classification system helps to standardize how statistical data is collected, analyzed, and reported across these three countries.

The NAICS system categorizes businesses into **20 different industry sectors**, each with its own sub-categories.

This is a list of the top-level NAICS sectors:

1. **Agriculture, Forestry, Fishing and Hunting**
2. **Mining, Quarrying, and Oil and Gas Extraction**
3. **Utilities**
4. **Construction**
5. **Manufacturing**
6. **Wholesale Trade**
7. **Retail Trade**
8. **Transportation and Warehousing**
9. **Accommodation and Food Service**
10. **Information**
11. **Finance and Insurance**
12. **Real Estate and Rental and Leasing**
13. **Professional, Scientific, and Technical Services**
14. **Management of Companies and Enterprises**
15. **Administrative and Support and Waste Management and Remediation Services**
16. **Educational Services**
17. **Health Care and Social Assistance**
18. **Arts, Entertainment, and Recreation**
19. **Accommodation and Food Service**
20. **Other Services (except Public Administration)**

To understand the overall impact of AI on different industries, researchers examined hundreds of occupations within each industry. The jobs examined were analyzed to calculate AI's impact based on the specific skills required for each occupation. Then, by aggregating these individual assessments, a score was derived indicating the anticipated level of AI disruption within each NAICS industry **and** all respective jobs.

For example, the Accommodation and Food Services Industry has 20 individual occupations ranging from cooks and servers to bartenders and waiters. Each occupation was assessed for their susceptibility to AI, and once the individual occupation disruption scores were calculated, the overall AI disruption score for the Accomodation and Food Services Industry could be developed (see: **2. Methodology** for a full description of formulas and calculations).

In summary, the data here features three categories that illuminate the impact of AI on each industry:

1. **AI Disruption Score:** This score quantifies the potential job losses within an industry due to automation and AI implementation.
2. **AI Creation Score:** This measure estimates the number of new jobs created by AI within the industry.
3. **AI Impact Score:** This final score combines the disruption and creation scores, providing a full picture representation of job losses or gains within an industry due to AI.

Following this industry-level analysis, we will continue by applying the same scoring system to individual occupations within each industry. This data will highlight which jobs in specific will, or will not, be heavily disrupted by AI over the next three years.

## 1b. Overview and Key Take-Aways

### *The Rise of AI: A Double-Edged Sword for Workers*

As of 2023, the U.S. Bureau of Labor Statistics estimates there were approximately 160 million adults aged 18 that were employed full-time in the United States (2). There's no doubt that Artificial Intelligence will significantly impact this workforce, and below are some key observations to further understand AI's impact on the U.S. labor market:

- In the broadest terms, **AI is expected to disrupt approximately 25% of all jobs across all industries and occupations over the next 3 years**. However, this figure is somewhat misleading, as certain industries and jobs within them are likely to face more substantial job loss due to automation and AI implementation than others. Accordingly, some industries and occupations will either benefit or be left unimpacted by AI.

AI is expected to disrupt approximately 25% of all jobs across all industries and occupations over the next 3 years.

  For example, this analysis shows that the Retail and Finance/Insurance industries will be greatly impacted by AI, while Mining and Agriculture will see minimal worker disruption.

- The data reveals that AI's impact will extend far beyond manual labor, affecting a wide range of industries and occupations. This challenges previous assumptions that AI would primarily disrupt blue-collar jobs. As AI becomes more sophisticated, it can automate even tasks requiring cognitive skills and expertise, underscoring the need for comprehensive strategies to mitigate the significant disruptions that AI will cause across industries and job roles.
- AI's rapid advancement in technical capabilities is poised to affect essential operations across virtually every industry in the United States. This transformation will significantly impact core business functions and reshape the workforce landscape in unprecedented ways. Key areas affected will include:
  - **Customer Service:** AI will be utilized across a wide range of jobs that involve customer interaction and satisfaction. AI could be used to automate tasks such as answering customer questions, resolving issues, assisting in product sales and providing product support.
  - **Operations:** Advances in AI technology will enable AI to take over many occupations in data entry, order processing, and inventory management. Additionally, AI can predict equipment failures, optimize maintenance schedules, and reduce downtime and costs.
  - **Supply Chain Optimization:** AI can optimize supply chains through improved demand forecasting, inventory management, and transportation planning. This, in turn, will affect how inventory fulfillment will operate – from warehousing to manufacturing.

- **Human Resources:** HR departments will be AI-driven in many of their functions such as recruitment, employee evaluations, benefits and promotions. As a result, many responsibilities of HR that were previously done manually will be streamlined by AI.
- **Financial Management:** AI can be utilized in a variety of financial management functions, from fraud detection to risk assessment and regulatory compliance.

- Although AI-powered automation may initially cause job losses, historical patterns indicate that technological advancements tend to generate more jobs in the long run (3). This is driven by:
  - **Increased Productivity:** AI implementation can lead to business growth and increased production of goods and services. This can help to create new job opportunities in sectors like data analysis and maintenance.
  - **New Industries and Job Roles:** AI itself is a rapidly growing industry, and is already creating jobs for researchers, developers, engineers, and other specialists.
  - **Shifting Skill Requirements:** While some jobs may become obsolete, others will adapt to the changes in technology and thus require new skills of their workforce. This necessitates a focus on reskilling or upskilling existing employees to meet the demands of the evolving job market.
  - **Pace of Technological Change:** The speed at which AI is adopted and integrated into industries will affect the rate of job displacement and creation.
  - **Government Policies:** Policies related to education, training, and social safety nets will play a crucial role in mitigating the negative impacts of AI and facilitating the transition to a new job market.
  - **Industry Structure:** The structure of different industries will, in part, determine how susceptible they are to workforce automation, as well as AI-driven job creation.
  - **Detaching Consumption from Job Creation:** In the coming years, as AI continues to develop new capabilities, the precidented correlation between consumption and job creation will deteriorate. While no economic law dictates that producing goods or services must involve human labor, businesses focused on innovation will likely continue to rely on human involvement for the foreseeable future.

- Retraining cannot address **most** of the issues of worker displacement. Historical evidence can provide valuable insights into how retraining will impact displaced workers. When analyzing the impact of NAFTA (North American Free Trade Agreement) from 1992, studies showed it caused the loss of some 700,000 jobs as production moved to Mexico (4). While retaining programs were made available to workers via the TAA program (Trade Adjustment Assistance), the vast majority of workers who lost jobs from NAFTA suffered a permanent loss of income. As AI continues to impact far more workers across a wider range of industries, we must take care to avoid broad, brushstroke solutions that will fail to protect many workers.

Retraining cannot address most of the issues of worker displacement.

## 1c. Top Winners and Losers in the North American Industry Classification System (NAICS)

This section explores which industries are most and least susceptible to AI's transformative effects.

***Industries on the Front Lines of AI Disruption: The Top Five Most Impacted Industries by AI*** *(Figure 1)*

Among all the industries present in NAICS, the analysis identified five that are poised for the most significant displacement of workers:

1. **Wholesale Trade**
2. **Retail Trade**
3. **Finance and Insurance**
4. **Educational Services**
5. **Real Estate and Rental and Leasing**

The reason why these industries are expected to face high levels of workforce disruption lies in the fact that many occupations within these sectors rely heavily on technological skills. Consider, for instance, roles like Customer Service Representatives, Computer and Information Systems Managers, Sales Agents, and Cashiers. These positions often require proficiency in areas like CRM software, data query and analysis, computer software, and communication skills. AI agents not only have the potential to automate these tasks but also excel at them, increasing the likelihood of their implementation. Consequently, AI-assisted workforces will experience a surge in efficiency, likely leading to a reduction in the overall number of workers needed.

As we've seen, workers in certain NAICS industries are highly impacted by AI because they rely on skills that AI is highly capable of performing. The skills that AI will significantly disrupt include:

1. Technology skills most impacted by AI for the NAICS category – **Wholesale Trade** are: document management software, internet directory services software, transaction security and virus protection software, word processing software, Calendar and scheduling software.
2. Technology skills most impacted by AI for the NAICS category – **Retail Trade** are: helpdesk or call center software, backup or archival software, network connectivity terminal emulation software, document management software, and time accounting software.
3. Technology skills most impacted by AI for the NAICS category – **Finance and Insurance** are: helpdesk or call center software, backup or archival software, document management software, time accounting software, transaction security and virus protection software.
4. Technology skills most impacted by AI for the NAICS category – **Educational Services** are: spell checkers, backup or archival software, document management software, time accounting software, transaction security and virus protection software.
5. Technology skills most impacted by AI for the NAICS category – **Real Estate and Rental and Leasing** are: document management software, word processing software, calendar and scheduling software, expert system software, and industrial control software.

Generally speaking, AI is poised to significantly disrupt five major NAICS industries, (Wholesale and Retail Trade, Finance and Insurance, Education, Real Estate, and Rental and Leasing), because it can both perform these skills efficiently and automate many tasks that were previously implemented by human workers. The following areas will see great change due to AI's various strengths and weaknesses:

1. **Repetitive, Rule-based Tasks:** These industries are filled with tasks that are repetitive, follow clear rules, and involve data manipulation. For example, processing loan applications, analyzing customer data for targeted marketing, or managing inventory all fall into this category. AI excels at automating these tasks, freeing up human workers for more complex activities.
2. **Increased Efficiency and Reduced Costs:** By automating repetitive tasks, AI can significantly improve efficiency. Imagine an AI system automatically generating property listings based on data or streamlining customer service interactions through chatbots. This translates to reduced operational costs for businesses.
3. **Data-Driven Decision Making:** These industries all rely heavily on data analysis to make informed decisions. AI excels at identifying patterns and trends in vast amounts of data. This allows for better risk assessments in finance, targeted advertising in retail, and more data-driven property

management decisions in real estate.

4. **Changing Customer Expectations:** Consumers today expect a seamless and personalized experience. AI-powered chatbots can provide 24/7 customer support in retail, while AI algorithms can personalize recommendations and offers. Real estate agents might leverage AI to provide virtual tours or recommend properties based on specific buyer needs.
5. **Evolving Job Landscape:** As AI automates these tasks, workers will need to adapt and develop new skills to complement AI, such as critical thinking, problem-solving, creativity, and strong communication abilities.

In essence, AI will disrupt these industries by automating tasks, improving efficiency, and enabling data-driven decision making.

*(See Figure 2 for a breakdown of occupations **most** impacted by AI)*

### *Top Five Industries Least Impacted by AI* *(Figure 1)*

On the other end of the spectrum, five NAICS industries are expected to experience a comparatively milder impact from AI. The five industries expected to be least impacted by AI's implmentation are:

1. **Management of Companies and Enterprises**
2. **Mining, Quarrying, and Oil and Gas Extraction**
3. **Government**
4. **Agriculture, Forestry, Fishing, and Hunting**
5. **Administrative and Support Services**

Jobs in these industries tend to place less emphasis on technical skills, making them less susceptible to immediate disruption by AI. Conversely, some jobs require a vast range of technical skills that need to work together, making them difficult for AI to replicate. For instance, a highly skilled administrative system engineer might need to diagnose and repair a wide variety of telecommunications problems using a diverse set of tools and knowledge. AI can excel at specific technical tasks, but currently struggles to master human skills like critical thinking, creativity, and complex situation management when paired with a broad range of technical expertise.

Because of this, the five NAICS industries least impacted by AI have a consistent profile with jobs that require a complex synthesis of human critical thinking and judgment skills alongside a deep and diverse set of technical skills.

1. **Management of Companies and Enterprises:** The jobs in this industry require a combination of human skills like critical thinking, creativity, and the ability to handle complex situations, alongside a broad range of technical expertise. These jobs require a complex integration of human-centric abilities with specific analytical or scientific software, human resources software, desktop publishing software, database reporting software, and webpage creation and editing software.
2. **Mining, Quarrying, and Oil and Gas Extraction:** The skills in this industry must be driven by human observation, integration and assessment, and are as follows: object or component oriented development software, internet protocol IP multimedia subsystem software, application server software, web page creation and editing software, business intelligence and data analysis software, must be driven by human observation, integration and assessement.
3. **Government:** There is a very critical set of human-centered process skills in this sector that must work synergistically with complex network security or virtual private network VPN management software, web page creation and editing software, geographic information systems, business intelligence and data analysis software, and information retrieval or search software.
4. **Agriculture, Forestry, Fishing, and Hunting:** This industry is highly dependent on physical management skills that AI cannot replicate. While some key technologies include geographic information systems and sophisticated visual-

ization software, AI cannot replace the broader observation skills needed in this industry.

5. **Administrative and Support Services:** This industry is dominated by workers who can manage processes and operational requirements. From information systems, sales and marketing software, to business intelligence and data analysis software, and information retrieval or search software, the skills in this sector are broad. The efficiencies that AI could deliver are limited by the complexity of combining the necessary skills to suit a given context.

It's important to note that even industries that are less impacted by AI do not translate to complete immunity. Examples of occupations that are likely to be significantly impacted by AI even within these industries include: Bill and Account Collectors, Travel Guides, Preventive Medicine Physicians, Secretaries and Administrative Assistants, and Web and Digital Interface Designers. The transformative potential of AI in these roles is clear. Consider Web and Digital Interface Designers – Generative AI techniques are already capable of generating a substantial portion of the source code required for web and interface design. This automation can significantly enhance worker efficiency by allowing them to leverage the generated code and focus on higher-level creative aspects.

However, in general, these industries rely on skills that are people-centric and are thus less impacted by AI, especially in specific areas:

1. **Human Touch and Judgment:** Jobs in Health Care and Social Assistance, like nursing or therapy, require a high degree of human empathy, critical thinking, and social skills that are difficult for AI to replicate. Similarly, government jobs often involve complex ethical considerations and nuanced decision-making that benefit from human judgment.
2. **Manual Dexterity and Creativity:** Manufacturing and many aspects of Arts, Entertainment, and Recreation rely heavily on manual dexterity and creative problem-solving. AI can automate certain tasks in these fields, but human direction remains irreplaceable in areas like skilled trades, artistic expression, and live performances.
3. **Regulatory Landscape and Human Oversight:** Government regulations and ethical considerations might place limitations on how extensively AI can be implemented in healthcare, social services, and some government functions. Human oversight will likely remain crucial in these areas.
4. **Adaptability and Continuous Learning:** Professional, Scientific, and Technical Services fields often require ongoing learning and adaptation to new technologies and situations. AI can be a valuable tool in these areas, but human expertise in research, analysis, and problem-solving will likely remain essential.
5. **Importance of Interpersonal Skills:** Many jobs in these sectors, like teaching, law, or scientific research, involve collaboration, communication, and relationship building. While AI can assist with data analysis or information retrieval, these interpersonal skills remain central to success.

It's important to note that AI will still impact these industries, but the impact might be more about augmentation than replacement.

*(See Figure 2 for a breakdown of occupations **least** impacted by AI)*

## 1d. Conclusion

This study's findings serve as a critical roadmap for navigating the transformative power of AI in the U.S. labor market. By providing a comprehensive analysis of AI's impact across various industries and occupations, the research empowers a multitude of stakeholders to make informed decisions that shape the future of work.

As the technology and applications of AI continue to evolve, both the technology and applications of AI, policymakers, nonetheless, at the federal and state levels need to craft targeted policies to mitigate potential disruptions and maximize the

This study is meant to serve as a bridge between our current understanding of AI's immediate impact on workers and policymakers' urgent need to develop programs addressing the future waves of AI disruption.

Our goal is to provide data to identify the occupations within each major industry that are most vulnerable to AI disruption.

positive effects of AI.

The range of options available to policymakers and businesses to utilize AI in the workplace can include; developing retraining programs for displaced workers, creating universal basic income policies to offset impacts of AI, investing in infrastructure that fosters AI innovation, and establishing regulations that ensure ethical and responsible AI implementation within specific job markets. All these options are necessary to create the robust safety nets needed for workers who will inevitably be impacted by AI.

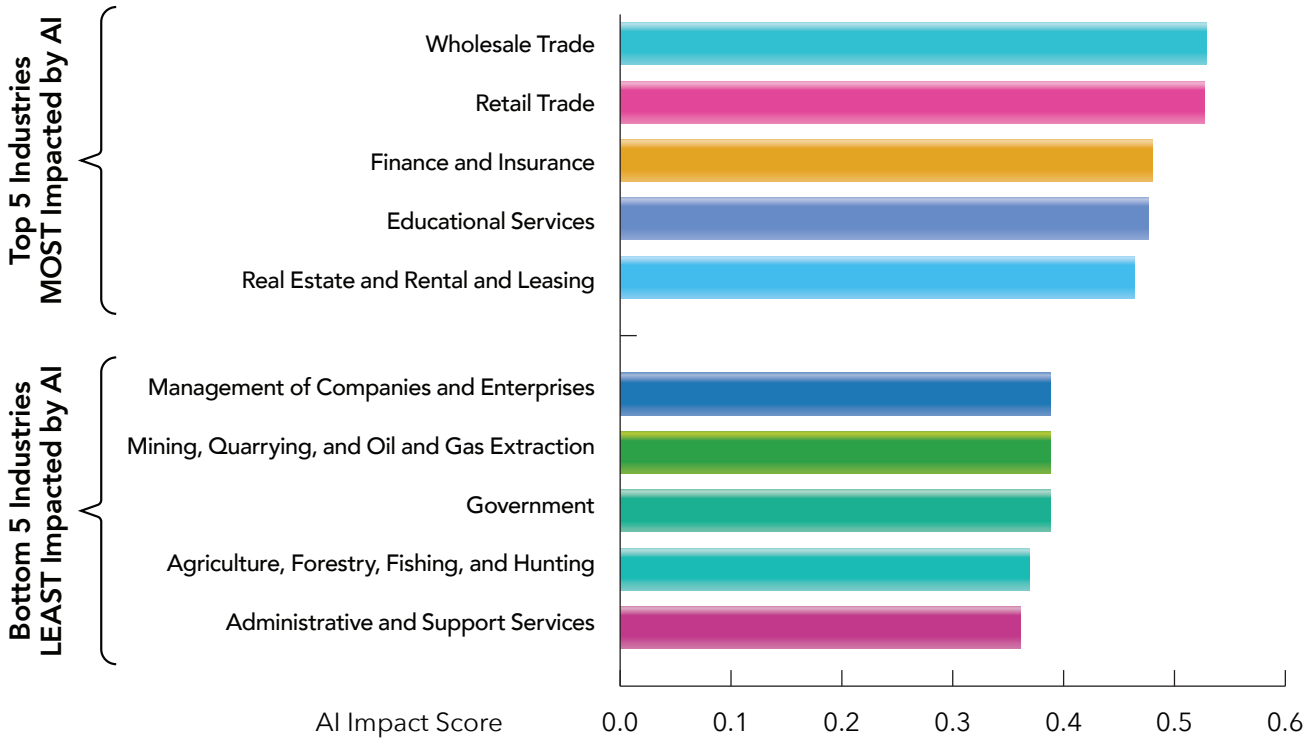
Armed with this information, various stakeholder groups can begin planning about how to adapt their workforces to integrate AI technologies with a focus on caring for worker adoption and disruption.

This will involve using AI to automate repetitive tasks, upskilling employees to collaborate with AI tools, and fostering a culture of continuous learning to adapt to the evolving landscape.

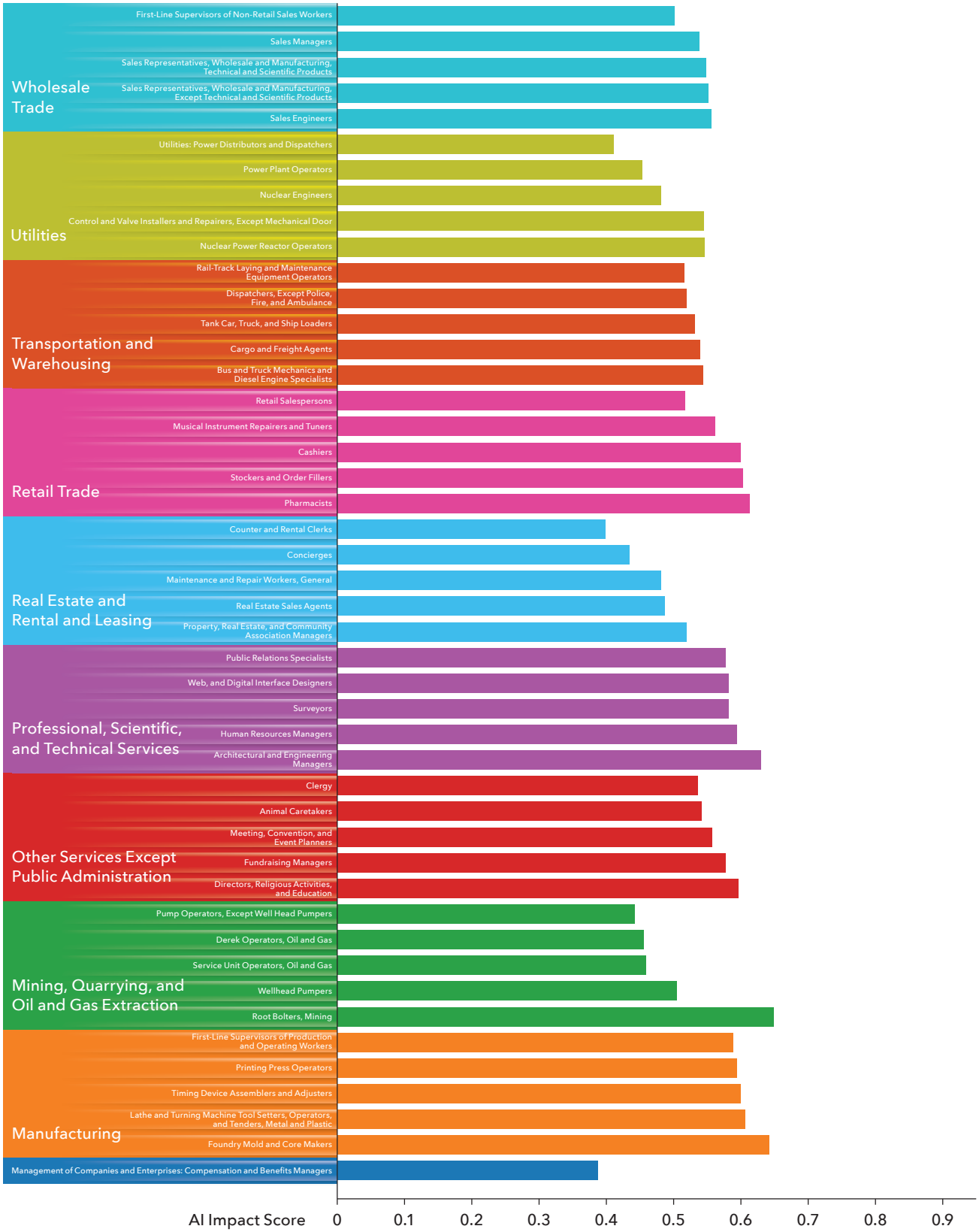
It will also include educational providers reexaminingat all aspects of our educational institutions – from early childhood schooling to higher education, these stakeholders will need to develop future-proof curriculums for learners of all ages.. We are hopeful this study's insights into AI's impact on workers and the workplace can guide the creation of educational programs that equip future generations with the necessary skills to thrive in an AI-driven economy. This shift towards fostering creativity and strong communication skills is where educational initiatives can have profound impacts.

In essence, this study transcends mere data analysis. It serves as a catalyst for proactive adaptation and strategic planning, ensuring stakeholders across the board are well-positioned to harness the potential of AI while mitigating its potential drawbacks in the ever-evolving U.S. labor market.

*Figure 1. The top-5 Industries that AI would Yield the Most and Least Impact*



## *Figure 2a. Top 5 Occupations Facing the Highest AI Impact in the 10 Industries Most Likely to be Disrupted*




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*Figure 2a. Top 5 Occupations Facing the Highest AI Impact in the 10 Industries Most Likely to be Disrupted*

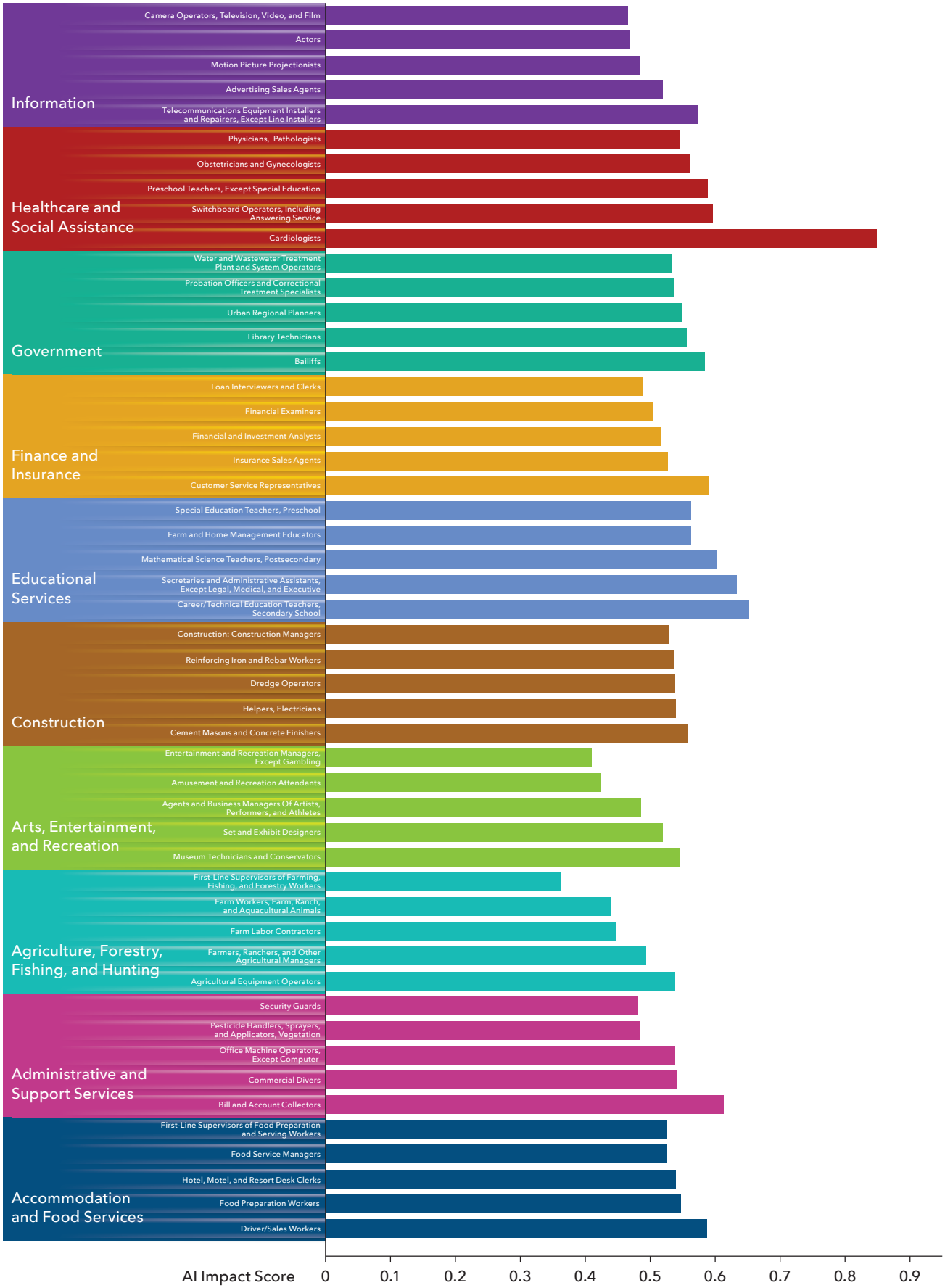
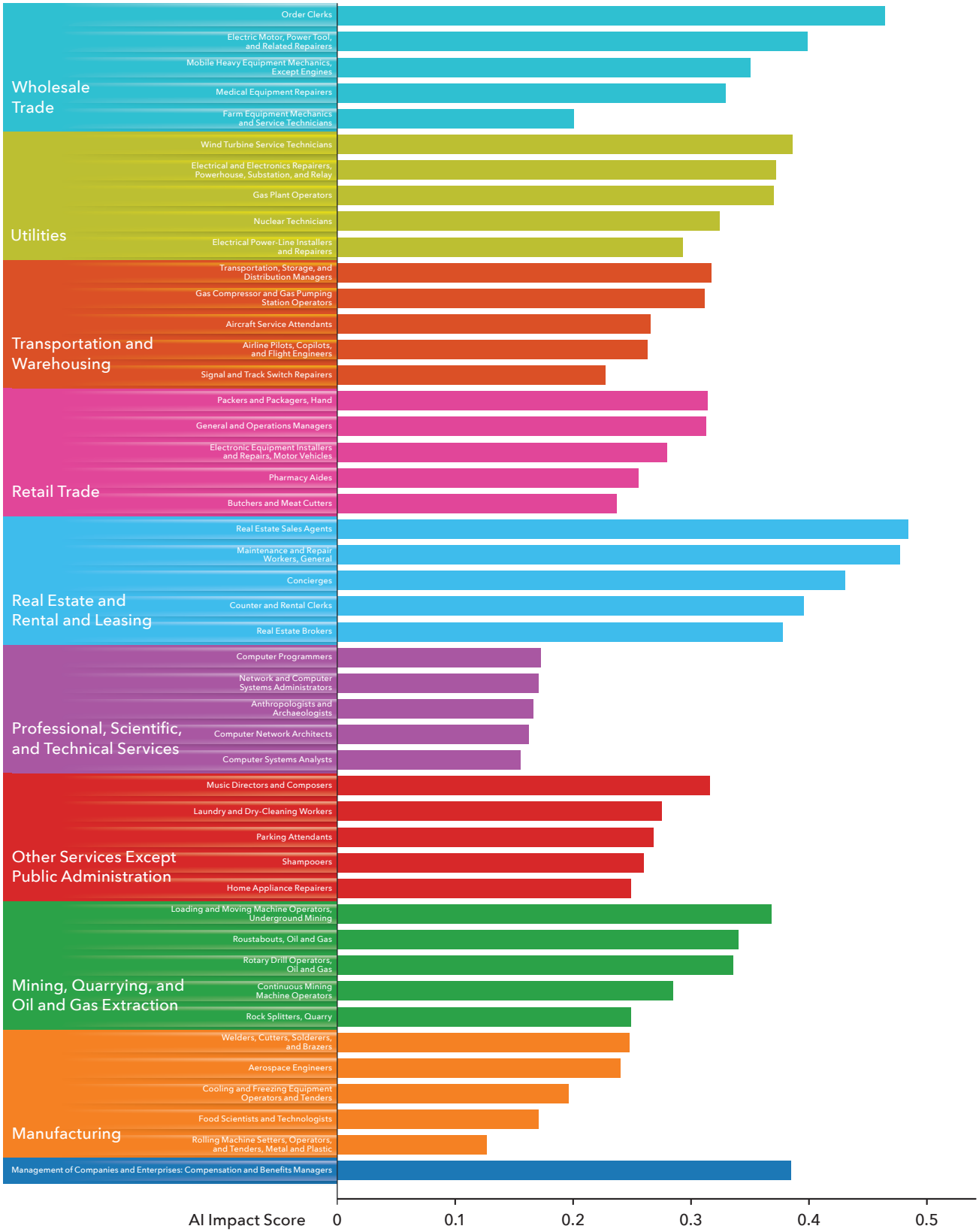
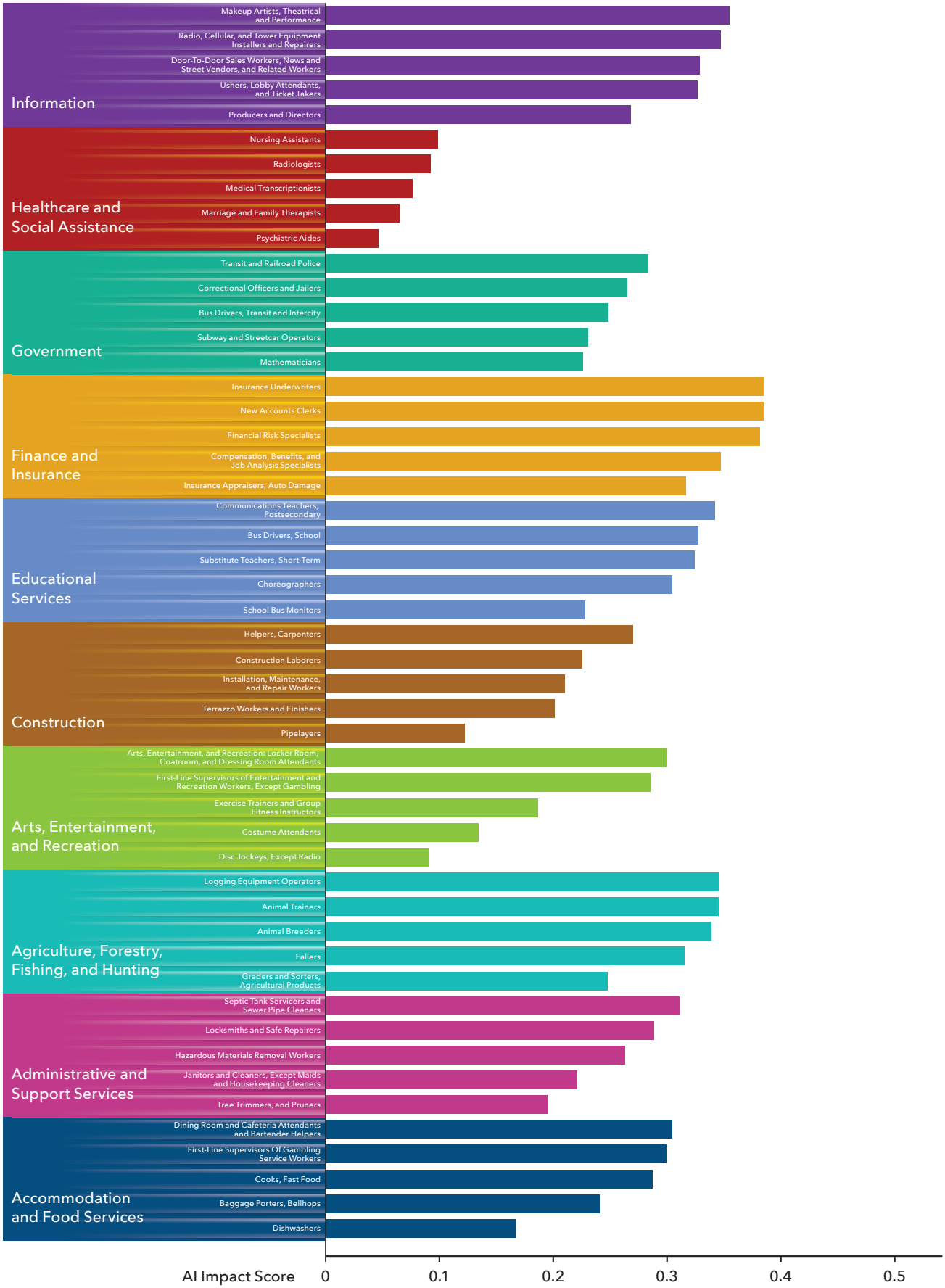


*Figure 2b. Top 5 Occupations Facing the Lowest AI Impact in the 10 Industries Least Likely to be Disrupted*




*continued on next page*

*Figure 2b. Top 5 Occupations Within Industries LEAST Impacted by AI (cont'd.)*



# 2. METHODOLOGY

## 2a. Data Structure

## 2b. Calculations of AI Disruption Scores



# 2. METHODOLOGY

## 2a. Data Structure

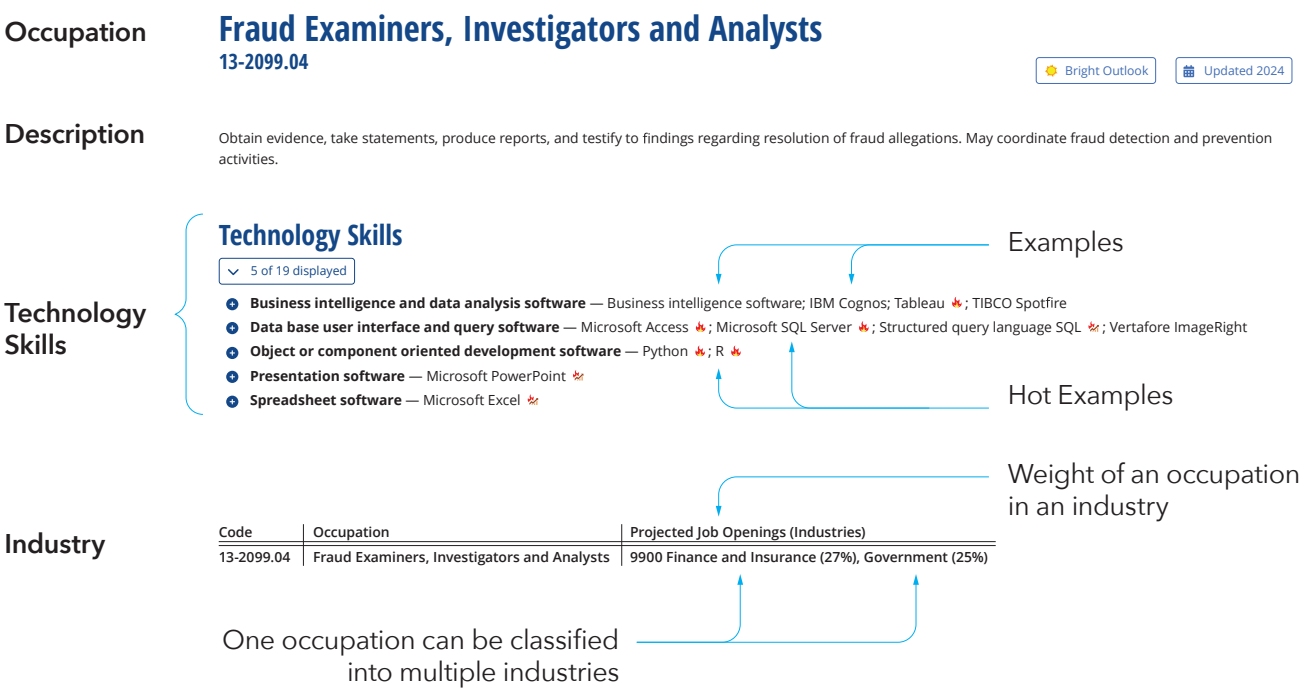
To obtain detailed information on multiple occupations within the U.S., we utilize data sourced from the U.S. Department of Labor's Employment & Training Administration and developed by the National Center for O*NET Development (1). This database encompasses details on 745 occupations across 20 industries, as delineated in Table 1. Occupations may span several industries, and O*NET assigns specific contribution weights to reflect the significance of each occupation within these sectors. For instance, the occupation "Fraud Examiners, Investigators, and Analysts" is associated with the "Finance and Insurance" industry with a contribution weight of 0.27 and the "Government" sector with a weight of 0.25.

***Table 1. Classification of Industries Based on NAICS Classification***

| ID | Industry |
|---|---|
| 1 | Wholesale Trade |
| 2 | Retail Trade |
| 3 | Finance and Insurance |
| 4 | Educational Services |
| 5 | Real Estate and Rental and Leasing |
| 6 | Health Care and Social Assistance |
| 7 | Arts, Entertainment, and Recreation |
| 8 | Transportation and Warehousing |
| 9 | Professional, Scientific, and Technical Services |
| 10 | Accommodation and Food Services |
| 11 | Other Services Except Public Administration |
| 12 | Information |
| 13 | Manufacturing |
| 14 | Construction |
| 15 | Utilities |
| 16 | Management of Companies and Enterprises |
| 17 | Mining, Quarrying, and Oil and Gas Extraction |
| 18 | Government |
| 19 | Agriculture, Forestry, Fishing, and Hunting |
| 20 | Administrative and Support Services |

For every occupation, the dataset includes the name, a descriptive paragraph, the number of job openings, and the requisite technology skills for task execution. For each technology skill, O*NET provides examples and indicators of market demand. There are 135 different kinds of technology skills for all occupations in total. Figure 3 shows an example about the data we have for each occupation from the O*NET web service.

*Figure 3. An Example about the Data from O*NET*



## 2b. Calculation of Scores

To explore the potential impact of modern AI technologies on the workforce, we have developed a framework that integrates cutting-edge generative AI models. This framework processes inputs including the occupation name, descriptions, and technology skills, and generates outputs including two sets of scores: the skill-level AI disruption scores and the occupation-level AI Creation score. The **skill-level AI disruption score** evaluates the potential efficiency improvement in utilizing each technology skill through advancements in AI technologies such as generative AI, robotics, natural language processing (NLP), computer vision, and reinforcement learning. The scores range from 0 (no improvement) to 1 (complete human replacement). Conversely, the **occupation-level AI Creation score** estimates the percentage of new job openings that could be generated by AI within each occupation, also ranging from 0 to 1.

To determine the **occupation-level AI disruption score**, we compute a weighted average of the AI disruption scores for each required technology skill. The weighting is based on the following criteria:

$$\textit{Weight of technology skill} = 1 + \frac{\textit{\# of in demand skill examples}}{\textit{\# of skill examples}}$$

The estimated score for an occupation with a lot of skills is not necessarily high (as it will be seen in Section III-B) because the occupation could require many in-depth skills despite the advance of AI.

Subsequently, we define the **occupation-level AI impact score** as follows:

$$\textit{AI impact score} = \textit{AI disruption score} - \textit{AI creation score}$$

This AI impact score represents the net percentage of job losses within each occupation due to the advent of modern AI technologies. For example, if one occupation's AI impact score is 0.10, it means 10% of jobs in this occupation could be replaced by AI.

At the industry level, we calculate AI disruption, AI creation, and AI impact scores by averaging the respective occupation-level scores, weighted by each occupation's contribution to its industry and the number of job openings. The weights are calculated as follows:

$$\textit{Weight of occupation a to industry b} = \textit{the number of job openings in a} \times \textit{the contribution weight of a to b}$$

To determine the net loss of employees within each industry because of AI, we sourced data on the total number of employees in 2023 per industry from the U.S. Department of Labor. We then calculated the net loss of employees in each industry using the following formula:

$$\textit{Net loss of employees per industry} = \textit{industry level AI impact score} \times \textit{number of employees of the industry}$$

We would note that there is no reported number of employees for each occupation in the U.S. Department of Labor dataset and thus we cannot estimate the loss of employees per occupation.

Further, we would note that while one occupation may appear in multiple industries in the O*NET dataset, we only keep each occupation in the industry that has the largest relevance score with the occupation. The relevance score of an individual occupation with an industry is given in the O*NET dataset.

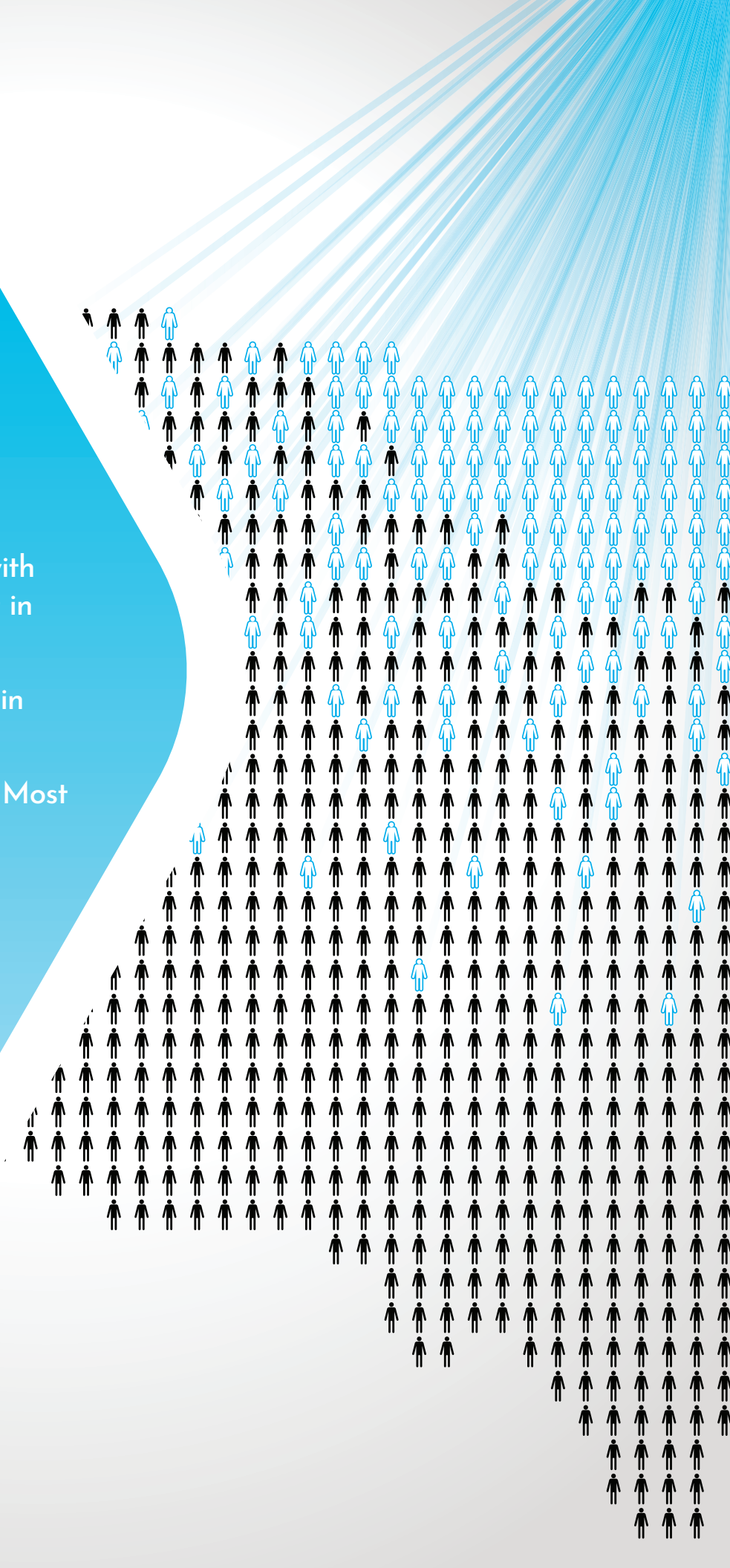
## 3. DATA ANALYSIS

### 3a. AI Disruption Scores by NAICS Industry with Number of Jobs Lost in Each Industry

### 3b. By Occupations Within Industries

> Detailing the Skills Most Impacted by AI

> Detailing the Skills Least Impacted by AI



# 3. DATA ANALYSIS

## 3a. Industry-level Scores and Net Losses of Employees

As noted above, some industries will see significant disruption or job creation because of AI. This section will provide details about the 20 NAICS industries and how AI will affect workers in these industries.

In this section, there are key data charts:

- All NAICS industries outlining:
  - The top NAICS industries withthe highest AI disruption score
  - The top NAICS industries with the lowest AI disruption score
- Summary Table of all NAICS industries and their AI disruption scores including number of jobs, per industry lost to AI over the next three years.

A note about scoring. Scores range from 0.000 to 0.99, with higher scores indicating a greater impact. Therefore, an occupation with a score of .75 means that AI will be highly disruptive in that occupation. By contrast, a score of .15 means AI will have minimal impact on the occupation.

## Detailed Analysis

***Top five industries that AI would yield the most negative impact include:***

1. Wholesale Trade
2. Retail Trade
3. Finance and Insurance
4. Educational Services
5. Real Estate and Rental and Leasing

The reason why these industries bear the most impact is that the occupations in these industries heavily rely on technical skills which will be dramatically acquired or accelerated by AI technology. In the following, we list the technology skills largely impacted by AI that each of the five industries heavily relies on.

1. Technology skills most impacted by AI for the **Wholesale Trade industry**: Document management software, Internet directory services software, Transaction security and virus protection software, Word processing software, Calendar and scheduling software.
2. Technology skills most impacted by AI for the **Retail Trade industry**: Helpdesk or call center software, Backup or archival software, Network connectivity terminal emulation software, Document management software, Time accounting software.
3. Technology skills most impacted by AI for the **Finance and Insurance industry**: Helpdesk or call center software, Backup or archival software, Document management software, Time accounting software, Transaction security and virus protection software
4. Technology skills most impacted by AI for the **Educational Services industry**: Spell checkers, Backup or archival software, Document management software, Time accounting software, Transaction security and virus protection software
5. Technology skills most impacted by AI for the **Real Estate and Rental and Leasing industry**: Document management software, Word processing software, Calendar and scheduling software, Expert system software, Industrial control software.

***Top five industries that AI would least impact consist of:***

1. Management of Companies and Enterprises
2. Mining, Quarrying, and Oil and Gas Extraction
3. Government
4. Agriculture, Forestry, Fishing, and Hunting
5. Administrative and Support Services

Compared with other industries, there are three reasons why these industries will be less impacted by AI.

- Occupations in these industries involve the least technical skills that AI is best equipped to handle. These jobs are often manual or repetitive or involve routine computations.
- Some jobs in these industries might appear to be highly vulnerable to AI disruption but are least impacted because the jobs in these industries require competency with a vast and deep range of technical skills that is beyond the capability of AI to replicate. For instance, a highly skilled administrative engineer might need to diagnose and repair a wide variety of telecommunications problems using a diverse set of tools and knowledge. AI can excel at specific technical tasks, but currently struggles to master such a broad range of skills. Examples of these type of workers are computer systems analysts, information security analysts, computer user support specialists, computer network architects, database administrators, network and computer systems administrators.
- Yet other jobs require workers to have a highly developed combination of human skills like critical thinking, creativity, and the ability to handle complex situations, alongside a very broad range of technical expertise. These occupations are less likely to be automated by AI in the near future. Industries such as Management and Agriculture are prime examples.

In the following, we list the skills that each of the five industries heavily relies on but are not heavily impacted by AI.

1. **Management of Companies and Enterprises**: These jobs require a complex integration of human-centric abilities with specific analytical or scientific software, human resources software, desktop publishing software, database reporting software, web page creation and editing software. This makes AI efficiency less impactful.
2. **Mining, Quarrying, and Oil and Gas Extraction**: This industry requires highly skilled and trained workers that use a lot of technology but in a supportive capacity. These workers do need a robust set of technical skills such as object or component oriented development software, Internet multimedia subsystem software, application server software, business intelligence and data analysis software, it is human observation and analysis that drive this sector.
3. **Government**: These jobs are human-centered operations and process skills that must work synergistically with complex technology such as network security or virtual private network VPN management software, web page creation and editing software, geographic information system, business intelligence and data analysis software, information retrieval software. The synthesis of human intelligence plus technical acumen limit AI's impact on these workers.
4. **Agriculture, Forestry, Fishing, and Hunting**: This industry is highly dependent on physical management skills that AI cannot duplicate. While some key technologies include geographic information systems and sophisticated visualization software, AI cannot replace the observation skills needed in this industry.
5. **Administrative and Support Services**: This industry is by workers who can manage processes and operational requirements. The skills in this sector are broad; information system, sales and marketing software, business intelligence and data analysis software and information retrieval or search software, but the efficiencies AI could deliver only have limited benefit.

*Table 1 below details AI Disruption Scores (job losses), AI Creation Score (new job creation) and AI Impact Score which calculates the net loss of jobs due to AI. Finally, this table also estimates actual number of job losses in each of the 20 NAICS industries.*

### *Table 1. Industry-Level Scores*

(Organized based on High Impact to Low Impact Score)

| Industry | AI Disruption Score | AI Creation Score | AI Impact Score | Net loss of Employees | Total # of Employees (2023) |
|---|---|---|---|---|---|
| Wholesale Trade | 0.644 | 0.116 | 0.529 | 1,592,844 | 3,013,860 |
| **Retail Trade** – #1 Industry to experience job loss | **0.622** | **0.095** | **0.527** | **6,558,430** | **12,439,539** |
| Finance and Insurance | 0.603 | 0.123 | 0.480 | 2,218,418 | 4,621,398 |
| Educational Services | 0.597 | 0.119 | 0.477 | 4,585,192 | 9,604,156 |
| Real Estate and Rental and Leasing | 0.586 | 0.122 | 0.464 | 378,462 | 815,866 |
| **Health Care and Social Assistance** – #2 Industry to experience job loss | **0.557** | **0.119** | **0.438** | **6,440,059** | **14,694,483** |
| Arts, Entertainment, and Recreation | 0.529 | 0.094 | 0.435 | 365,305 | 840,579 |
| Transportation and Warehousing | 0.540 | 0.109 | 0.431 | 2,176,234 | 5,043,434 |
| Professional, Scientific, and Technical Services | 0.559 | 0.129 | 0.430 | 3,584,758 | 8,341,555 |
| **Accommodation and Food Services** – #3 Industry to experience job loss | **0.525** | **0.099** | **0.426** | **5,291,951** | **12,433,677** |
| Other Services Except Public Administration | 0.540 | 0.119 | 0.421 | 1,074,768 | 2,552,321 |
| Information | 0.558 | 0.139 | 0.419 | 669,006 | 1,595,723 |
| Manufacturing | 0.542 | 0.132 | 0.410 | 3,373,232 | 8,233,147 |
| Construction | 0.522 | 0.128 | 0.394 | 1,999,630 | 5,069,319 |
| Utilities | 0.518 | 0.129 | 0.390 | 74,001 | 189,939 |
| Management of Companies and Enterprises | 0.560 | 0.172 | 0.388 | 123,424 | 318,205 |
| Mining, Quarrying, and Oil and Gas Extraction | 0.551 | 0.163 | 0.388 | 81,214 | 209,463 |
| Government | 0.485 | 0.098 | 0.388 | 2,800,287 | 7,223,036 |
| Agriculture, Forestry, Fishing, and Hunting | 0.540 | 0.171 | 0.369 | 123,227 | 333,973 |
| Administrative and Support Services | 0.459 | 0.099 | 0.361 | 1,791,918 | 4,964,008 |
| **TOTALS** | | | | **45,302,360** | **102,537,681** |

## 3b. Occupation-level impact score including skills that will or will not be impacted by AI

In the following section, we report the estimated impact score of each occupation within each of the twenty industries. The O*NET dataset provides all the occupations that are in each of the 20 NAICS industries. In addition, the charts will exhibit the occupations that are projected to have the highest and lowest impact due to AI.

We would note that while one occupation may appear in multiple industries in the O*NET dataset, each occupation is only listed in the most relevant an individual occupation has to a specific industry.

### 3b.1 Wholesale Trade Industry

***Top five occupations with the largest negative impact within the Wholesale Trade industry***

Among the occupations in the Wholesale Trade industry, here are the top five occupations **mostnegatively impacted** by AI:

1. Sales Engineers
2. Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
3. Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
4. Sales Managers

The occupations with the highest Impact Score, (the net loss of jobs after calculating the new job creation), within the Wholesale Trade industry are driven by AI's significant ability to replace human labor within these skilled occupations:

1. **Sales Engineers** – Impact Score 0.556: This occupation has the highest impact score because it is influenced by the following key skills: Internet services software, Transaction security software, Sales automation and overall word processing software.

   The technology skills for this occupation and their impact scores: (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Expert system software, 0.450), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Authentication server software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Web platform development software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Computer aided design CAD software, 0.325), (Switch or router software, 0.325), (Network monitoring software, 0.325), (Project management software, 0.300), (Access software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Administration software, 0.275), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Application server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Communications server software, 0.250), (Network security or virtual private network VPN management software, 0.225), (Business intelligence and data analysis software, 0.175).

2. **Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products** – Impact Score 0.552: This occupation has a high impact score because it is influenced by the following key skills: document management software, transaction security and virus protection software, sales management soft-

ware, word processing software, calendar and scheduling software, expert system software.

The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Expert system software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Network conferencing software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Web platform development software, 0.325), (Medical software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Access software, 0.275), (database management system software, 0.275), (Data mining software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100).

3. **Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products** – Impact Score 0.548: This occupation has a high impact score because of the following key technology skills: sales management software, transaction security, collaboration software, word processing software, Calendar and scheduling software, financial system software.

   The technology skills of this occupation and their impact scores: (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Network conferencing software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Access software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Internet protocol IP multimedia subsystem software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100).

4. **Sales Managers** – Impact Score 0.538: This occupation has a high impact score because of the following key technology skills: Document management software, transaction security and virus protection software, word processing software, calendar and scheduling software, Operating system software, sales management software and financial system software.

   The technology skills of this occupation and their impact scores: (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400),

(Cloud-based management software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Web platform development software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Data mining software, 0.275), (Object or component oriented development software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100).

5. **First-Line Supervisors of Non-Retail Sales Workers** – Impact Score 0.501: This occupation has a high impact score because of the following technology skills: Word processing software, team collaboration software, calendar and scheduling software, time management software, process mapping and design software.

   The technology skills of this occupation and their impact score: (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Enterprise application integration software, 0.275)

***Top five occupations with the least impact within the Wholesale Trade industry***

Among the occupations in the Wholesale Trade industry, here are the top five occupations **least impacted** by AI:

1. Order Clerks
2. Electric Motor, Power Tool, and Related Repairers
3. Mobile Heavy Equipment Mechanics, Except Engines
4. Medical Equipment Repairers

Impact score analysis of the top five **least-impacted** occupations within the Wholesale Trade industry:

1. **Order Clerks** – Impact Score 0.468: This occupation has a low impact score because of the following least-impacted skills, Inventory management software, Accounting software, Enterprise system management software, and its dependency on a limited number of technology skills.

   The technology skills of this occupation and their impact score: (Document management software, 0.500), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Procurement software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Enterprise system management software, 0.275).

2. **Electric Motor, Power Tool, and Related Repairers** – Impact Score 0.401: This occu-

pation has a low impact score because of the following least-impacted skills: Facilities management software, Analytical or scientific software, Object or component oriented development software, and its dependency on a limited number of technology skills.

The technology skills of this occupation and their impact score: (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275).

3. **Mobile Heavy Equipment Mechanics, Except Engines** – Impact Score 0.352: This occupation has a low impact score because of the following least-impacted skills: Electronic mail software, Facilities management software, Project management software, and its dependency on a limited number of technology skills.

   The technology skills of this occupation and their impact score: (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Facilities management software, 0.325), (Project management software, 0.300).

4. **Medical Equipment Repairers** – Impact Score 0.332: This occupation has a low impact score because of the following least-impacted skills, Enterprise resource planning ERP software, Facilities management software, Medical software, and its dependency on a limited number of technology skills.

   The technology skills of this occupation and their impact score: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Video conferencing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Facilities management software, 0.325), (Medical software, 0.325).

5. **Farm Equipment Mechanics and Service Technicians** – Impact Score 0.202: This occupation has the least impact score because of the following least-impacted skills, (Office suite software, 0.350), (Electronic mail software, 0.350), (Facilities management software, 0.325), and its dependency on a limited number of technology skills.

   The technology skills of this occupation and their impact score: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Facilities management software, 0.325).

***A summary table of AI impact scores for ALL occupations within the Wholesale Trade Industry***

| Occupation | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Electric Motor, Power Tool, and Related Repairers | 0.573 | 0.172 | 0.401 |
| Farm Equipment Mechanics and Service Technicians | 0.447 | 0.244 | 0.202 |
| Fashion Designers | 0.617 | 0.128 | 0.489 |
| First-Line Supervisors of Non-Retail Sales Workers | 0.658 | 0.157 | 0.501 |
| Medical Equipment Repairers | 0.448 | 0.117 | 0.332 |
| Mobile Heavy Equipment Mechanics, Except Engines | 0.497 | 0.144 | 0.352 |
| Order Clerks | 0.540 | 0.072 | 0.468 |

*continued on next page*

*A summary table of AI impact scores for ALL occupations within the Wholesale Trade industry (cont'd.)*

| Occupation | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Sales Engineers | 0.712 | 0.156 | 0.556 |
| Sales Managers | 0.638 | 0.100 | 0.538 |
| Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 0.663 | 0.111 | 0.552 |
| Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products | 0.659 | 0.111 | 0.548 |

## 3b.2 Retail Trade Industry

***Top five occupations with the largest negative impact within the Retail Trade industry due to AI.***

Among the occupations in the Retail Trade industry, here are the top five occupations **most impacted** by AI:

1. Pharmacists
2. Stockers and Order Fillers
3. Cashiers
4. First-line Supervisors of Retail Sales Workers

Impact score analysis of the **most-impacted** occupations within the Retail Trade industry are driven by AI's significant ability to replace human labor within these skilled occupations:

1. **Pharmacists** – Impact Score 0.613: This occupation has the highest impact score because it is influenced by the following key skills: medical research software, word processing software, database software, claims management software, patient management software, calendar and scheduling software, spreadsheet software.

   The technology skills for this occupation and their impact scores are: (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Label making software, 0.250).

2. **Stockers and Order Fillers** – Impact Score 0.604: This occupation has a high impact score because it is influenced by the following key skills: Materials requirements planning logistics and supply chain software, collaboration and scheduling software, productivity software. In addition, AI can automate many human tasks in warehouses and distribution centers.

   The technology skills for this occupation and their impact scores are: (Materials requirements planning logistics and supply chain software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Voice synthesizer and recognition software, 0.325), (Desktop communications software, 0.250).

3. **Cashiers** – Impact Score 0.601: This occupation has a high impact score because it is influenced by the following repetitive skills AI can replace: financial software, operating system software, Spreadsheet software, Database user interface and query software.

   The technology skills for this occupation and their impact scores are: (Operating system software, 0.425), (Spreadsheet software, 0.375),

(database user interface and query software, 0.375), (Office suite software, 0.350), (Accounting software, 0.325), (Medical software, 0.325), (Point of sale POS software, 0.300).

4. **First-line Supervisors of Retail Sales Workers** – Impact Score 0.516: This occupation has a high impact score because it is influenced by the following key skills: document management software, time accounting software, visual merchandising software, retail management systems, inventory systems and collaboration and scheduling software.

   The technology skills for this occupation and their impact scores are: (Document management software, 0.500), (Time accounting software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Inventory management software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Point of sale POS software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175).

5. **Retail Salespersons** – Impact Score 0.518: This occupation has a high impact score because it is influenced by the following key skills: document management, inventory management software, collaboration software, financial processing software, operating system software, automated customer service software.

   The technology skills for this occupation and their impact scores are: (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Web page creation and editing software, 0.225).

***Top five occupations with the least impact within the Retail Trade industry***

Among the occupations in the Retail Trade industry, here are the top five occupations **least impacted** by AI:

1. Packers and Packagers, Hand
2. General and Operations Managers
3. Electronic Equipment Installers and Repairers, Motor Vehicles
4. Pharmacy Aides

Impact score analysis of the occupations within the Retail Trade industry:

1. **Packers and Packagers, Hand** – Impact Score 0.316: This occupation has a low impact score because of the following least-impacted skills: Enterprise resource planning ERP software, Computer aided design CAD software, Inventory management software, and its dependency

on a limited number of technology skills.

The technology skills for this occupation and their impact scores are: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325).

2. **General and Operations Managers** – Impact Score 0.315: This occupation has a low impact score because of the following least-impacted skills: Geographic information system, Business intelligence and data analysis software, Information retrieval or search software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores are: (Backup or archival software, 0.550), (Document management software, 0.500), (Time accounting software, 0.475), (Transaction security and virus protection software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Video creation and editing software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Configuration management software, 0.325), (Metadata management software, 0.325), (Computer aided design CAD software, 0.325), (Network monitoring software, 0.325), (Facilities management software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Point of sale POS software, 0.300), (Instant messaging software, 0.300), (Transaction server software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (Content workflow software, 0.275), (Access software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (Data mining software, 0.275), (Enterprise application integration software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Communications server software, 0.250), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100).

3. **Electronic Equipment Installers and Repairers, Motor Vehicles** – Impact Score 0.281: This occupation has a low impact score because of the following least-impacted skills: Presentation software, Computer aided design CAD software, Analytical or scientific software, and its dependency on a limited number of technology skills. The technology skills for this occupation and their impact scores are: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300).

4. **Pharmacy Aides** – Impact Score 0.257: This occupation has a low impact score because of the following least-impacted skills: Office suite software, Electronic mail software, Presentation software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores are: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325).

5. **Butchers and Meat Cutters** – Impact Score 0.239: This occupation has the least impact score because of the following least-impacted skills: Office suite software, Electronic mail

software, Accounting software, and its dependency on a limited number of technology skills.

The technology skills for this occupation and their impact scores are: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Accounting software, 0.325).

***A summary table of AI impact scores for ALL occupations within the Retail Trade Industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Floral Designers | 0.456 | 0.080 | 0.376 |
| Merchandise Displayers and Window Trimmers | 0.648 | 0.150 | 0.498 |
| Pharmacists | 0.718 | 0.106 | 0.613 |
| Pharmacy Technicians | 0.448 | 0.117 | 0.331 |
| Hearing Aid Specialists | 0.525 | 0.106 | 0.420 |
| Pharmacy Aides | 0.424 | 0.167 | 0.257 |
| First-Line Supervisors of Retail Sales Workers | 0.621 | 0.106 | 0.516 |
| Cashiers | 0.655 | 0.054 | 0.601 |
| Parts Salespersons | 0.472 | 0.089 | 0.383 |
| Retail Salespersons | 0.629 | 0.111 | 0.518 |
| Models | 0.541 | 0.129 | 0.412 |
| Computer, Automated Teller, and Office Machine Repairers | 0.647 | 0.147 | 0.500 |
| Electronic Equipment Installers and Repairers, Motor Vehicles | 0.464 | 0.183 | 0.281 |
| Audiovisual Equipment Installers and Repairers | 0.450 | 0.110 | 0.340 |
| Automotive Service Technicians and Mechanics | 0.629 | 0.117 | 0.513 |
| Motorboat Mechanics and Service Technicians | 0.498 | 0.106 | 0.392 |
| Motorcycle Mechanics | 0.431 | 0.111 | 0.319 |
| Outdoor Power Equipment and Other Small Engine Mechanics | 0.602 | 0.100 | 0.502 |
| Bicycle Repairers | 0.625 | 0.156 | 0.469 |
| Recreational Vehicle Service Technicians | 0.575 | 0.111 | 0.464 |
| Tire Repairers and Changers | 0.444 | 0.069 | 0.376 |
| Musical Instrument Repairers and Tuners | 0.756 | 0.194 | 0.561 |
| Watch and Clock Repairers | 0.577 | 0.128 | 0.450 |
| Coin, Vending, and Amusement Machine Servicers and Repairers | 0.538 | 0.111 | 0.427 |
| Butchers and Meat Cutters | 0.428 | 0.189 | 0.239 |
| Tailors, Dressmakers, and Custom Sewers | 0.565 | 0.194 | 0.370 |
| Jewelers and Precious Stone and Metal Workers | 0.502 | 0.050 | 0.452 |
| Automotive and Watercraft Service Attendants | 0.450 | 0.094 | 0.355 |
| Packers and Packagers, Hand | 0.394 | 0.078 | 0.316 |
| Stockers and Order Fillers | 0.698 | 0.094 | 0.604 |
| Manufactured Building and Mobile Home Installers | 0.544 | 0.094 | 0.450 |
| General and Operations Managers | 0.451 | 0.136 | 0.315 |

## 3b.3 Finance and Insurance Industry

***Top five occupations with the largest negative impact within the finance and insurance industry***

Among the occupations in the finance and insurance industry, here are the top five occupations **most impacted** by AI:

1. Customer Service Representatives
2. Insurance Sales Agents
3. Financial and Investment Analysts
4. Financial Examiners
5. Loan Interviewers and Clerks

Impact score analysis of the **most-impacted** occupations within the finance and insurance industry are driven by AI's significant ability to replace human labor within these skilled occupations:

1. **Customer Service Representatives** – Impact Score 0.591: This occupation has the highest impact score because it is influenced by the following key skills that AI can automate: Helpdesk or call center software, inventory software, backup or archival software, document management software, time accounting software, voice recognition software.

   The technology skills for this occupation and their impact scores: (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Document management software, 0.500), (Time accounting software, 0.475), (Transaction security and virus protection software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Network conferencing software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Voice recognition software, 0.375), (Video creation and editing software, 0.375), (Mobile messaging service software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Contact center software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Point of sale POS software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (Access software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (Desktop communications software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Communications server software, 0.250), (Multi-media educational software, 0.250), (Fax software, 0.245), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100).

2. **Insurance Sales Agents** – Impact Score 0.527: This occupation has a high impact score because it is influenced by the following key skills: collaboration software, document management software, actuary software, compliance software, calendar and scheduling software, sales management software, word processing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Medical software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225).

3. **Financial and Investment Analysts** – Impact Score 0.518: This occupation has a high impact score because it is influenced by the following key skills: financial system software, document management software, database management, word processing software, financial trading software, security system software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Expert system software, 0.450), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Charting software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Configuration management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise system management software, 0.275), (database reporting software, 0.275), (database management system software, 0.275), (Human resources software, 0.275), (Object or component oriented development software, 0.275), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100).

4. **Financial Examiners** – Impact Score 0.504: This occupation has a high impact score because it is influenced by the following key skills: word processing software, auditing system software, transaction software, process mapping and design software, financial analysis software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Project management software, 0.300), (Information retrieval or search software, 0.100).

5. **Loan Interviewers and Clerks** – Impact Score 0.488: This occupation has a high impact score because it is influenced by the following key skills: customer relationship management software, word processing software, applications software, operating system software, Internet identity software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Desktop publishing software, 0.275).

***Top five occupations with the least impact within the Finance and Insurance industry***

Among the occupations in the finance and insurance industry, here are the top five occupations **least impacted** by AI:

1. Insurance Underwriters
2. New Accounts Clerks
3. Financial Risk Specialists
4. Compensation, Benefits, and Job Analysis Specialists
5. Insurance Appraisers, Auto Damage

Impact score analysis of the top five **least-impacted** occupations within the finance and insurance industry:

1. **Insurance Underwriters** – Impact Score 0.388: This occupation has a low impact score because of the following least-impacted skills: enterprise resource planning ERP software, object or component oriented development software, Information retrieval or search software, and its dependency on a limited number of technology skills.

The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Object or component oriented development software, 0.275), (Information retrieval or search software, 0.100).

2. **New Accounts Clerks** – Impact Score 0.388: This occupation has a low impact score because of the following least-impacted skills: cloud-based data access and sharing software, presentation software, accounting software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Internet browser software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325).

3. **Financial Risk Specialists** – Impact Score 0.384: This occupation has a low impact score because of the following least-impacted skills: sales and marketing software, business intelligence and data analysis software, information retrieval or search software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Expert system software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Charting software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Configuration management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Content workflow software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Human resources software, 0.275), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100).

4. **Compensation, Benefits, and Job Analysis Specialists** – Impact Score 0.350: This occupation has a low impact score because of the following least-impacted skills: human resources software, database management system software, web page creation and editing software, business intelligence and data analysis software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (database reporting software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175).

5. **Insurance Appraisers, Auto Damage** – Impact Score 0.318: This occupation has the least impact score because of the following least-impacted skills: accounting software, compiler and decompiler software, project

management software, and its dependency on a limited number of technology skills.

The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Compiler and decompiler software, 0.300), (Project management software, 0.300).

***A summary table of AI impact scores for ALL occupations within the Finance and Insurance industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Financial Managers | 0.654 | 0.172 | 0.482 |
| Claims Adjusters, Examiners, and Investigators | 0.579 | 0.122 | 0.456 |
| Insurance Appraisers, Auto Damage | 0.491 | 0.172 | 0.318 |
| Compensation, Benefits, and Job Analysis Specialists | 0.582 | 0.232 | 0.350 |
| Credit Analysts | 0.571 | 0.144 | 0.427 |
| Financial and Investment Analysts | 0.679 | 0.161 | 0.518 |
| Personal Financial Advisors | 0.630 | 0.206 | 0.425 |
| Insurance Underwriters | 0.510 | 0.122 | 0.388 |
| Financial Risk Specialists | 0.534 | 0.150 | 0.384 |
| Financial Examiners | 0.649 | 0.144 | 0.504 |
| Loan Officers | 0.607 | 0.128 | 0.479 |
| Actuaries | 0.640 | 0.161 | 0.479 |
| Insurance Sales Agents | 0.622 | 0.094 | 0.527 |
| Securities, Commodities, and Financial Services Sales Agents | 0.597 | 0.111 | 0.486 |
| Tellers | 0.521 | 0.073 | 0.447 |
| Brokerage Clerks | 0.632 | 0.157 | 0.476 |
| Correspondence Clerks | 0.605 | 0.167 | 0.438 |
| Credit Authorizers, Checkers, and Clerks | 0.559 | 0.122 | 0.436 |
| Customer Service Representatives | 0.702 | 0.111 | 0.591 |
| Loan Interviewers and Clerks | 0.571 | 0.083 | 0.488 |
| New Accounts Clerks | 0.521 | 0.133 | 0.388 |
| Insurance Claims and Policy Processing Clerks | 0.548 | 0.150 | 0.398 |

## 3b.4 Educational Services

***Top five occupations with the largest negative impact within the Educational Services industry***

Among the occupations in the educational services industry, here are the top five occupations **most impacted** by AI:

1. Career/Technical Education Teachers, Secondary School
2. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
3. Mathematical Science Teachers, Postsecondary
4. Farm and Home Management Educators
5. Special Education Teachers, Preschool

Impact score analysis of top five occupations **most impacted** by AI within the educational services industry:

1. **Career/Technical Education Teachers, Secondary School** – Impact Score 0.652: this occupation has the highest impact score because it is influenced by the following key skills: education software, collaboration software, online education tools and productivity software.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Computer aided design CAD software, 0.325), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Information retrieval or search software, 0.100).

2. **Secretaries and Administrative Assistants, Except Legal, Medical, and Executive** – Impact Score 0.633: This occupation has a high impact score because it is influenced by the following key skills: document management software, backup or archival software, financial management software, voice to text software and time accounting software. Many of these tasks can be performed by AI.

   The technology skills for this occupation and their impact scores: (Backup or archival software, 0.550), (Document management software, 0.500), (Time accounting software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Mobile messaging service software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Voice recognition software, 0.375), (Network conferencing software, 0.375), (Portal server software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Metadata management software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (Access software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Data mining software, 0.275), (Enterprise application integration software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100).

3. **Mathematical Science Teachers, Postsecondary** – Impact Score 0.602: This occupation has a high impact score because it is influenced by the following key skills: education software, advanced online teaching aids, collaboration and scheduling software, word processing software, Internet search software.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Database user interface and query software, 0.375), (Development environment software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100).

4. **Farm and Home Management Educators** – Impact Score 0.564: This occupation has a high impact score because it is influenced by the following key skills: agriculture software management, field mapping, labor management, word processing software, procurement software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Internet browser software, 0.375), (Procurement software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Project management software, 0.300), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Geographic information system, 0.225).

5. **Special Education Teachers, Preschool** – Impact Score 0.563: This occupation has a high impact score because it is influenced by the following key skills: early childhood learning software, data management, collaboration software, productivity software, device and system software, advanced classroom curriculums. Noteworthy, this occupation will also be heavily disrupted due an increase in alternate remedial techniques driven by technology that take place outside the classroom.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Device drivers or system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325).

***Top five occupations with the least impact due to AI within the Educational Services industry***

Among the occupations in the educational services industry, here are the top five occupations **least impacted** by AI:

1. Communications Teachers, Postsecondary
2. Bus Drivers, School
3. Substitute Teachers, Short-Term
4. Choreographers
5. School Bus Monitors

Impact score analysis of the top-5 **least-impacted** occupation within the educational services industry:

1. **Communications Teachers, Postsecondary** – Impact Score 0.345: This occupation has a low impact score because of the following least-impacted skills: desktop publishing software, information retrieval or search software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Database user interface and query software, 0.375), (Electronic mail software, 0.350), (Music or sound editing software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging

software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100).

2. **Bus Drivers, School** – Impact Score 0.330: This occupation has a low impact score because of its dependency on a limited number of technology skills such as map creation software, vehicle management software.

3. **Substitute Teachers, Short-Term** – Impact Score 0.327: This occupation has a low impact score because of the following least-impacted skills: project management software, desktop communications software, multi-media educational software, and its dependency on a physical presence versus technology skills.

   The technology skills for this occupation and their impact scores: (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Video conferencing software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Desktop communications software, 0.250), (Multi-media educational software, 0.250).

4. **Choreographers** – Impact Score 0.307: This occupation has a low impact score because of the following least-impacted skills: office suite software, presentation software, music editing software. This occupation is not a tech dependent job.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Graphical user interface development software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Web page creation and editing software, 0.225).

5. **School Bus Monitors** – Impact Score 0.230: This occupation has the least impact score because of its dependency on a very very low number of technology skills including Internet browsing and basic PC skills.

***A summary table of AI impact scores for ALL occupations within the Educational Services industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Facilities Managers | 0.565 | 0.092 | 0.474 |
| Education Administrators, Kindergarten through Secondary | 0.569 | 0.139 | 0.430 |
| Education Administrators, Postsecondary | 0.544 | 0.100 | 0.444 |
| Training and Development Specialists | 0.663 | 0.156 | 0.507 |
| Credit Counselors | 0.550 | 0.133 | 0.417 |
| School Psychologists | 0.567 | 0.128 | 0.439 |
| Social Science Research Assistants | 0.625 | 0.150 | 0.475 |
| Educational, Guidance, and Career Counselors and Advisors | 0.576 | 0.117 | 0.460 |
| Business Teachers, Postsecondary | 0.629 | 0.133 | 0.495 |
| Computer Science Teachers, Postsecondary | 0.575 | 0.206 | 0.369 |
| Mathematical Science Teachers, Postsecondary | 0.697 | 0.094 | 0.602 |
| Architecture Teachers, Postsecondary | 0.637 | 0.139 | 0.498 |
| Engineering Teachers, Postsecondary | 0.620 | 0.126 | 0.495 |
| Agricultural Sciences Teachers, Postsecondary | 0.687 | 0.128 | 0.559 |

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***A summary table of AI impact scores for ALL occupations within the Educational Services industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Biological Science Teachers, Postsecondary | 0.660 | 0.133 | 0.526 |
| Forestry and Conservation Science Teachers, Postsecondary | 0.575 | 0.156 | 0.419 |
| Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary | 0.571 | 0.096 | 0.475 |
| Chemistry Teachers, Postsecondary | 0.609 | 0.123 | 0.486 |
| Environmental Science Teachers, Postsecondary | 0.558 | 0.133 | 0.425 |
| Physics Teachers, Postsecondary | 0.683 | 0.150 | 0.533 |
| Anthropology and Archeology Teachers, Postsecondary | 0.679 | 0.133 | 0.546 |
| Area, Ethnic, and Cultural Studies Teachers, Postsecondary | 0.637 | 0.161 | 0.476 |
| Economics Teachers, Postsecondary | 0.640 | 0.200 | 0.440 |
| Geography Teachers, Postsecondary | 0.619 | 0.104 | 0.515 |
| Political Science Teachers, Postsecondary | 0.601 | 0.122 | 0.478 |
| Psychology Teachers, Postsecondary | 0.658 | 0.117 | 0.542 |
| Sociology Teachers, Postsecondary | 0.611 | 0.122 | 0.488 |
| Health Specialties Teachers, Postsecondary | 0.589 | 0.106 | 0.484 |
| Nursing Instructors and Teachers, Postsecondary | 0.529 | 0.117 | 0.412 |
| Education Teachers, Postsecondary | 0.658 | 0.156 | 0.503 |
| Library Science Teachers, Postsecondary | 0.667 | 0.128 | 0.539 |
| Criminal Justice and Law Enforcement Teachers, Postsecondary | 0.611 | 0.111 | 0.500 |
| Law Teachers, Postsecondary | 0.603 | 0.127 | 0.476 |
| Social Work Teachers, Postsecondary | 0.593 | 0.133 | 0.460 |
| Art, Drama, and Music Teachers, Postsecondary | 0.670 | 0.117 | 0.553 |
| Communications Teachers, Postsecondary | 0.578 | 0.233 | 0.345 |
| English Language and Literature Teachers, Postsecondary | 0.634 | 0.104 | 0.530 |
| Foreign Language and Literature Teachers, Postsecondary | 0.587 | 0.183 | 0.404 |
| History Teachers, Postsecondary | 0.544 | 0.123 | 0.421 |
| Philosophy and Religion Teachers, Postsecondary | 0.575 | 0.082 | 0.493 |
| Family and Consumer Sciences Teachers, Postsecondary | 0.579 | 0.122 | 0.457 |
| Recreation and Fitness Studies Teachers, Postsecondary | 0.554 | 0.156 | 0.399 |
| Career/Technical Education Teachers, Postsecondary | 0.552 | 0.150 | 0.402 |
| Kindergarten Teachers, Except Special Education | 0.526 | 0.101 | 0.425 |
| Elementary School Teachers, Except Special Education | 0.639 | 0.106 | 0.533 |
| Middle School Teachers, Except Special and Career/Technical Education | 0.694 | 0.139 | 0.555 |
| Career/Technical Education Teachers, Middle School | 0.638 | 0.222 | 0.416 |

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***A summary table of AI impact scores for ALL occupations within the Educational Services industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Secondary School Teachers, Except Special and Career/Technical Education | 0.586 | 0.106 | 0.480 |
| Career/Technical Education Teachers, Secondary School | 0.735 | 0.083 | 0.652 |
| Special Education Teachers, Preschool | 0.719 | 0.156 | 0.563 |
| Special Education Teachers, Middle School | 0.661 | 0.128 | 0.533 |
| Special Education Teachers, Secondary School | 0.634 | 0.113 | 0.521 |
| Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors | 0.525 | 0.100 | 0.425 |
| Self-Enrichment Teachers | 0.662 | 0.117 | 0.545 |
| Substitute Teachers, Short-Term | 0.543 | 0.217 | 0.327 |
| Tutors | 0.598 | 0.178 | 0.420 |
| Archivists | 0.582 | 0.161 | 0.421 |
| Librarians and Media Collections Specialists | 0.626 | 0.150 | 0.476 |
| Farm and Home Management Educators | 0.666 | 0.102 | 0.564 |
| Instructional Coordinators | 0.662 | 0.118 | 0.544 |
| Teaching Assistants, Postsecondary | 0.608 | 0.172 | 0.436 |
| Coaches and Scouts | 0.660 | 0.120 | 0.540 |
| Choreographers | 0.423 | 0.117 | 0.307 |
| School Bus Monitors | 0.336 | 0.106 | 0.230 |
| Executive Secretaries and Executive Administrative Assistants | 0.587 | 0.144 | 0.443 |
| Secretaries and Administrative Assistants, Except Legal, Medical, and Executive | 0.716 | 0.083 | 0.633 |
| Bus Drivers, School | 0.410 | 0.080 | 0.330 |

## 3b.5 Real Estate and Rental and Leasing

***Top three occupations with the largest negative impact within the Real Estate and Rental and Leasing industry due to AI***

Among the occupations in the Real Estate and Rental and Leasing industry, here are the top three occupations **most impacted** by AI:

1. Property, Real Estate, and Community Association Managers
2. Real Estate Sales Agents
3. Maintenance and Repair Workers, General

**Highest impact** score analysis of top three occupations within the Real Estate and Rental and Leasing industry:

1. **Property, Real Estate, and Community Association Managers** – Impact Score 0.519: This occupation has the highest impact score because it is influenced by the following three skills: database management, collaboration software, productivity software, sales management system software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Access software, 0.275), (Data mining software, 0.275), (Web page creation and editing software, 0.225).

2. **Real Estate Sales Agents** – Impact Score 0.487: This occupation has a high impact score because it is influenced by the following key skills: client management software, document management software, word processing software, expert system software, data mining, collaboration and scheduling software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Expert system software, 0.450), (Calendar and scheduling software, 0.450), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Route navigation software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Data mining software, 0.275), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225).

3. **Maintenance and Repair Workers, General** – Impact Score 0.480: This occupation has a high impact score because it is influenced by the following key skills: word processing software, industrial control software, buying platforms, technical specification software, CAD software, augmented reality, calendar and scheduling software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Instant messaging software, 0.300), (Project

management software, 0.300), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225).

***Top three occupations with the least impact within the Real Estate and Rental and Leasing industry due to AI***

Among the occupations in the Real Estate and Rental and Leasing industry, here are the top three occupations **least impacted** by AI:

1. Concierges
2. Counter and Rental Clerks
3. Real Estate Brokers

Impact score analysis of the top three **least-impacted** occupation within the Real Estate and Rental and Leasing industry:

1. **Concierges** – Impact Score 0.434: This occupation has a low impact score because of the following least-impacted skills: presentation software, accounting software, desktop publishing software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Desktop publishing software, 0.275).

2. **Counter and Rental Clerks** – Impact Score 0.397: This occupation has a low impact score because of the following least-impacted skills: presentation software, inventory management software, point of sale POS software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300).

3. **Real Estate Brokers** – Impact Score 0.380: This occupation has the least impact score because of the following least-impacted skills: analytical or scientific software, web page creation and editing software, geographic information system, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225), (Geographic information system, 0.225).

***A summary table of AI impact scores for ALL occupations within the Real Estate and Rental and Leasing industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Property, Real Estate, and Community Association Managers | 0.622 | 0.103 | 0.519 |
| Concierges | 0.501 | 0.067 | 0.434 |
| Counter and Rental Clerks | 0.486 | 0.089 | 0.397 |
| Real Estate Brokers | 0.630 | 0.250 | 0.380 |
| Real Estate Sales Agents | 0.687 | 0.200 | 0.487 |
| Maintenance and Repair Workers, General | 0.608 | 0.128 | 0.480 |

## 3b.6. Health Care and Social Assistance

***Top five occupations with the largest negative impact within the Health Care and Social Assistance industry***

Among the occupations in the Health Care and Social Assistance industry, here are the top five occupations **most impacted** by AI:

1. Cardiologists
2. Switchboard Operators, Including Answering Service
3. Preschool Teachers, Except Special Education
4. Obstetricians and Gynecologists
5. Physicians, Pathologists

Impact score analysis of top five occupations within the Health Care and Social Assistance industry **most impacted** by AI:

1. **Cardiologists** – Impact Score 0.850: This occupation has the highest impact score because it is influenced by the following key skills: augmented reality, 3D modeling, transaction security and virus protection software, Medical software and electronic health record (EHR) systems.

   The technology skills for this occupation and their impact scores: (Transaction security and virus protection software, 0.475), (Medical software, 0.325).

2. **Switchboard Operators, Including Answering Service** – Impact Score 0.596: This occupation has a high impact score because it is influenced by the following key skills: word processing software, automated assistants, time keeping software, financial software, customer service software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Facilities management software, 0.325).

3. **Preschool Teachers, Except Special Education** – Impact Score 0.589: This occupation has a high impact score because it is influenced by the following key skills: early childhood learning software, data management, collaboration software, productivity software, device and system software, advanced classroom curriculums, word processing software, mobile messaging service software, spreadsheet software. A contributing factor for high disruption of teachers in K-12 can somewhat be attributed to AI teaching tools and diverse learning environments outside the classroom.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Mobile messaging service software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Video conferencing software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Desktop communications software, 0.250), (Multi-media educational software, 0.250).

4. **Obstetricians and Gynecologists** – Impact Score 0.562: This occupation has a high impact score because it is influenced by the following key skills: database systems, diagnostic technology, augmented reality, word processing software, Calendar and scheduling software, Internet browser software and electronic health record (EHR) systems.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Medical software, 0.325).

5. **Physicians, Pathologists** – Impact Score 0.546: This occupation has a high impact score because it is influenced by the following key skills: augmented reality, financial systems, database user interface and query software, collaboration software, practice management software, medical billing systems and electronic health record (EHR) systems.

The technology skills for this occupation and their impact scores: (Spreadsheet software, 0.375), (Database user interface and query software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (database management system software, 0.275), (Information retrieval or search software, 0.100).

***Top five occupations with the least impact within the Health Care and Social Assistance industry***

Among the occupations in the Health Care and Social Assistance industry, here are the top-5 occupations **least impacted** by AI:

1. Nursing Assistants
2. Radiologists
3. Medical Transcriptionists
4. Marriage and Family Therapists
5. Psychiatric Aides

Impact score analysis of the top five **least-impacted** occupations within the Health Care and Social Assistance industry:

1. **Nursing Assistants** – Impact Score 0.099: This occupation has a low impact score because of the following least-impacted skills: medical software, accounting software, business intelligence and data analysis software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Business intelligence and data analysis software, 0.175).

2. **Radiologists** – Impact Score 0.093: This occupation has a low impact score because of the following least-impacted skills: electronic mail software, graphics or photo imaging software, medical software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Voice recognition software, 0.375), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Medical software, 0.325).

3. **Medical Transcriptionists** – Impact Score 0.077: This occupation has a low impact score because of the following least-impacted skills: accounting software, desktop communications software, information retrieval or search software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Spell checkers, 0.700), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Web platform development software, 0.325), (Accounting software, 0.325), (Desktop communications software, 0.250), (Information retrieval or search software, 0.100).

4. **Marriage and Family Therapists** – Impact Score 0.065: This occupation has a low impact score because it relies on human skills while technical skills are least impacted by AI: medical software, accounting software, web platform development software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325).

5. **Psychiatric Aides** – Impact Score 0.047: this occupation has the least impact score because of the following least-impacted skills versus human skills: Office suite software, Presentation software, Medical software, and its dependency on a limited number of technology skills. The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325).

***A summary table of AI impact scores for ALL occupations within the Health Care and Social Assistance industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Education and Childcare Administrators, Preschool and Daycare | 0.585 | 0.167 | 0.419 |
| Medical and Health Services Managers | 0.593 | 0.117 | 0.476 |
| Social and Community Service Managers | 0.489 | 0.125 | 0.364 |
| Clinical and Counseling Psychologists | 0.503 | 0.100 | 0.403 |
| Marriage and Family Therapists | 0.199 | 0.133 | 0.065 |
| Rehabilitation Counselors | 0.446 | 0.250 | 0.196 |
| Healthcare Social Workers | 0.613 | 0.133 | 0.479 |
| Mental Health and Substance Abuse Social Workers | 0.619 | 0.217 | 0.402 |
| Health Education Specialists | 0.638 | 0.233 | 0.404 |
| Social and Human Service Assistants | 0.464 | 0.217 | 0.247 |
| Community Health Workers | 0.492 | 0.150 | 0.342 |
| Preschool Teachers, Except Special Education | 0.639 | 0.050 | 0.589 |
| Chiropractors | 0.428 | 0.200 | 0.228 |
| Dentists, General | 0.426 | 0.083 | 0.343 |
| Oral and Maxillofacial Surgeons | 0.517 | 0.150 | 0.367 |
| Orthodontists | 0.400 | 0.200 | 0.200 |
| Dietitians and Nutritionists | 0.593 | 0.157 | 0.437 |
| Optometrists | 0.365 | 0.133 | 0.231 |
| Physician Assistants | 0.501 | 0.050 | 0.451 |
| Podiatrists | 0.454 | 0.100 | 0.354 |
| Occupational Therapists | 0.467 | 0.217 | 0.251 |
| Physical Therapists | 0.424 | 0.150 | 0.274 |
| Radiation Therapists | 0.511 | 0.167 | 0.345 |
| Recreational Therapists | 0.507 | 0.200 | 0.307 |
| Respiratory Therapists | 0.551 | 0.173 | 0.377 |
| Speech-Language Pathologists | 0.614 | 0.100 | 0.514 |
| Exercise Physiologists | 0.469 | 0.107 | 0.363 |
| Registered Nurses | 0.485 | 0.060 | 0.425 |

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***A summary table of AI impact scores for ALL occupations within the Health Care and Social Assistance industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Nurse Anesthetists | 0.525 | 0.117 | 0.408 |
| Nurse Midwives | 0.428 | 0.133 | 0.295 |
| Nurse Practitioners | 0.598 | 0.067 | 0.531 |
| Audiologists | 0.367 | 0.183 | 0.184 |
| Anesthesiologists | 0.559 | 0.093 | 0.465 |
| Cardiologists | 0.667 | -0.183 | 0.850 |
| Dermatologists | 0.499 | 0.133 | 0.365 |
| Emergency Medicine Physicians | 0.583 | 0.133 | 0.450 |
| Family Medicine Physicians | 0.593 | 0.100 | 0.493 |
| General Internal Medicine Physicians | 0.499 | 0.133 | 0.366 |
| Neurologists | 0.559 | 0.167 | 0.392 |
| Obstetricians and Gynecologists | 0.628 | 0.067 | 0.562 |
| Pediatricians, General | 0.522 | 0.200 | 0.322 |
| Physicians, Pathologists | 0.679 | 0.133 | 0.546 |
| Psychiatrists | 0.255 | 0.125 | 0.130 |
| Ophthalmologists, Except Pediatric | 0.487 | 0.150 | 0.337 |
| Orthopedic Surgeons, Except Pediatric | 0.479 | 0.167 | 0.312 |
| Pediatric Surgeons | 0.470 | 0.100 | 0.370 |
| Acupuncturists | 0.463 | 0.183 | 0.279 |
| Dental Hygienists | 0.421 | 0.250 | 0.171 |
| Cardiovascular Technologists and Technicians | 0.381 | 0.150 | 0.231 |
| Diagnostic Medical Sonographers | 0.496 | 0.267 | 0.230 |
| Nuclear Medicine Technologists | 0.484 | 0.133 | 0.351 |
| Radiologic Technologists and Technicians | 0.517 | 0.067 | 0.451 |
| Magnetic Resonance Imaging Technologists | 0.395 | 0.200 | 0.195 |
| Medical Dosimetrists | 0.700 | 0.183 | 0.517 |
| Emergency Medical Technicians | 0.619 | 0.167 | 0.452 |
| Paramedics | 0.425 | 0.133 | 0.291 |
| Dietetic Technicians | 0.636 | 0.200 | 0.436 |
| Psychiatric Technicians | 0.490 | 0.167 | 0.324 |
| Surgical Technologists | 0.640 | 0.100 | 0.540 |
| Ophthalmic Medical Technicians | 0.494 | 0.117 | 0.377 |
| Licensed Practical and Licensed Vocational Nurses | 0.537 | 0.123 | 0.413 |
| Medical Records Specialists | 0.501 | 0.110 | 0.391 |
| Opticians, Dispensing | 0.418 | 0.250 | 0.168 |

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***A summary table of AI impact scores for ALL occupations within the Health Care and Social Assistance industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Orthotists and Prosthetists | 0.436 | 0.167 | 0.269 |
| Health Information Technologists and Medical Registrars | 0.502 | 0.233 | 0.269 |
| Athletic Trainers | 0.567 | 0.150 | 0.417 |
| Genetic Counselors | 0.469 | 0.100 | 0.369 |
| Surgical Assistants | 0.582 | 0.300 | 0.282 |
| Nursing Assistants | 0.249 | 0.150 | 0.099 |
| Orderlies | 0.376 | 0.100 | 0.276 |
| Psychiatric Aides | 0.430 | 0.383 | 0.047 |
| Occupational Therapy Assistants | 0.546 | 0.150 | 0.396 |
| Occupational Therapy Aides | 0.624 | 0.300 | 0.324 |
| Physical Therapist Assistants | 0.353 | 0.250 | 0.103 |
| Physical Therapist Aides | 0.624 | 0.123 | 0.501 |
| Dental Assistants | 0.583 | 0.140 | 0.443 |
| Medical Assistants | 0.595 | 0.150 | 0.445 |
| Medical Equipment Preparers | 0.500 | 0.117 | 0.383 |
| Medical Transcriptionists | 0.410 | 0.333 | 0.077 |
| Phlebotomists | 0.465 | 0.150 | 0.315 |
| Cooks, Institution and Cafeteria | 0.601 | 0.117 | 0.484 |
| Food Servers, Nonrestaurant | 0.457 | 0.117 | 0.341 |
| Childcare Workers | 0.531 | 0.200 | 0.331 |
| Residential Advisors | 0.533 | 0.150 | 0.383 |
| First-Line Supervisors of Office and Administrative Support Workers | 0.609 | 0.125 | 0.484 |
| Switchboard Operators, Including Answering Service | 0.696 | 0.100 | 0.596 |
| Telephone Operators | 0.536 | 0.067 | 0.469 |
| Billing and Posting Clerks | 0.533 | 0.160 | 0.373 |
| Interviewers, Except Eligibility and Loan | 0.486 | 0.217 | 0.270 |
| Receptionists and Information Clerks | 0.555 | 0.167 | 0.389 |
| Medical Secretaries and Administrative Assistants | 0.639 | 0.140 | 0.499 |
| Office Clerks, General | 0.631 | 0.100 | 0.531 |
| Radiologists | 0.393 | 0.300 | 0.093 |
| Ambulance Drivers and Attendants, Except Emergency Medical Technicians | 0.613 | 0.150 | 0.463 |

## 3b.7. Arts, Entertainment, and Recreation

***Top five occupations with the largest negative impact within the Arts, Entertainment, and Recreation industry***

Among the occupations in the Arts, Entertainment, and Recreation industry, here are the top five occupations **most impacted** by AI:

1. Museum Technicians and Conservators
2. Set and Exhibit Designers
3. Agents and Business Managers of Artists, Performers, and Athletes
4. Amusement and Recreation Attendants
5. Entertainment and Recreation Managers, Except Gambling

Impact score analysis of top five occupations within the Arts, Entertainment, and Recreation industry **most impacted** by AI:

1. **Museum Technicians and Conservators** – Impact Score 0.546: This occupation has the highest impact score because it is influenced by the following key skills: document management software, word processing software, object oriented database management software, CAD software, graphics software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Object oriented database management software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Desktop publishing software, 0.275).

2. **Set and Exhibit Designers** – Impact Score 0.521: This occupation has a high impact score because it is influenced by the following key skills: document management software, word processing software, CAD software, augmented reality, video creation and editing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (File versioning software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Program testing software, 0.225).

3. **Agents and Business Managers of Artists, Performers, and Athletes** – Impact Score 0.487: This occupation has a high impact score within this category because it is influenced by the following key skills: word processing software, tax preparation software, CRM software and database software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Tax preparation software, 0.425), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Transaction server software, 0.300), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100).

4. **Amusement and Recreation Attendants** – Impact Score 0.426: This occupation has a

high impact score because it is influenced by skills needed to manage the property including: database management, scheduling software, word processing software, desktop publishing and productivity software.

The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225).

5. **Entertainment and Recreation Managers, Except Gambling** – Impact Score 0.411: This occupation is in the top five high impact jobs because it is influenced by the following key skills: financial software, document management software, word processing software, process mapping software database software and CRM software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Network conferencing software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Instant messaging software, 0.300), (Analytical or scientific software, 0.300), (database reporting software, 0.275), (Human resources software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175).

***Top five occupations with the least impact within the Arts, Entertainment, and Recreation industry due to AI.***

Among the occupations in the Arts, Entertainment, and Recreation industry, here are the top five occupations **least impacted** by AI:

1. Locker Room, Coatroom, and Dressing Room Attendants
2. First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services
3. Exercise Trainers and Group Fitness Instructors
4. Costume Attendants
5. Disc Jockeys, Except Radio

Impact score analysis of the top five **least-impacted** occupations within the Arts, Entertainment, and Recreation industry due to AI:

1. **Locker Room, Coatroom, and Dressing Room Attendants** – Impact Score 0.302: This occupation has a low impact score because of the following least-impacted skills: office suite software, inventory management software, web page creation and editing software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Inventory management software, 0.325), (Web page creation and editing software, 0.225).

2. **First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services** – Impact Score 0.287: This occupation has a low impact score because the human skills are more important than the relatively few technical skills that are not highly impacted by AI: presentation software, Inventory management software, Point of Sale POS software.

   The technology skills for this occupation and their impact scores: (Time accounting software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser

software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300).

3. **Exercise Trainers and Group Fitness Instructors** – Impact Score 0.188: This occupation has a low impact score because of the following least-impacted skills: project management software, instant messaging software, desktop publishing software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Project management software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275).

4. **Costume Attendants** – Impact Score 0.135: This occupation has a low impact score because of the following least-impacted skills: office suite software, electronic mail software, inventory management software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Inventory management software, 0.325)

5. **Disc Jockeys, Except Radio** – Impact Score 0.092: This occupation has the least impact score because of its dependency on human skills versus the very limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Music or sound editing software, 0.350).

***A summary table of AI impact scores for ALL occupations within the Arts, Entertainment, and Recreation industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Entertainment and Recreation Managers, Except Gambling | 0.528 | 0.117 | 0.411 |
| Agents and Business Managers of Artists, Performers, and Athletes | 0.604 | 0.117 | 0.487 |
| Curators | 0.568 | 0.200 | 0.368 |
| Museum Technicians and Conservators | 0.696 | 0.150 | 0.546 |
| Craft Artists | 0.514 | 0.133 | 0.380 |
| Fine Artists, Including Painters, Sculptors, and Illustrators | 0.457 | 0.100 | 0.357 |
| Set and Exhibit Designers | 0.671 | 0.150 | 0.521 |
| Athletes and Sports Competitors | 0.415 | 0.100 | 0.315 |
| Umpires, Referees, and Other Sports Officials | 0.424 | 0.067 | 0.358 |
| Dancers | 0.482 | 0.117 | 0.365 |
| Disc Jockeys, Except Radio | 0.342 | 0.250 | 0.092 |
| First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services | 0.511 | 0.223 | 0.287 |
| Gambling and Sports Book Writers and Runners | 0.467 | 0.100 | 0.367 |
| Amusement and Recreation Attendants | 0.509 | 0.083 | 0.426 |
| Costume Attendants | 0.269 | 0.133 | 0.135 |

*continued on next page*

***A summary table of AI impact scores for ALL occupations within the Arts, Entertainment, and Recreation industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Locker Room, Coatroom, and Dressing Room Attendants | 0.385 | 0.083 | 0.302 |
| Exercise Trainers and Group Fitness Instructors | 0.322 | 0.133 | 0.188 |

## 3b.8. Transportation and Warehousing

***Top five occupations with the largest negative impact within the Transportation and Warehousing industry***

Among the occupations in the Transportation and Warehousing industry, here are the top five occupations **most impacted** by AI:

1. Bus and Truck Mechanics and Diesel Engine Specialists
2. Cargo and Freight Agents
3. Tank Car, Truck, and Ship Loaders
4. Dispatchers, Except Police, Fire, and Ambulance
5. Rail-Track Laying and Maintenance Equipment Operators

Impact score analysis of top five occupations within the Transportation and Warehousing industry **most impacted** by AI:

1. **Bus and Truck Mechanics and Diesel Engine Specialists** – Impact Score 0.544: This occupation has the highest impact score because it is influenced by the following a diverse set of technical skills that AI can automate: materials requirements planning logistics and supply chain software, supply chain software, CAD software, word processing software, logistics planning software, calendar and scheduling software.

   The technology skills for this occupation and their impact scores: (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Facilities management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300).

2. **Cargo and Freight Agents** – Impact Score 0.539: This occupation has a high impact score because it is influenced by the following key skills: ERP software, inventory management software, database software, word processing software, operating system software, spreadsheet software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Procurement software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Mobile location based services software, 0.325).

3. **Tank Car, Truck, and Ship Loaders** – Impact Score 0.531: This occupation has a high impact score because it is influenced by the following key skills which AI can replace: materials requirements planning logistics and supply chain software, operating system software, ERP software and financial spreadsheet software.

   The technology skills for this occupation and their impact scores: (Materials requirements planning logistics and supply chain software,

0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325).

4. **Dispatchers, Except Police, Fire, and Ambulance** – Impact Score 0.520: This occupation has a high impact score because AI can be utilized to a great extent considering the key skills in this occupation: helpdesk or call center software, time accounting software, word processing software and aviation ground support software.

   The technology skills for this occupation and their impact scores: (Helpdesk or call center software, 0.650), (Time accounting software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Expert system software, 0.450), (Aviation ground support software, 0.425), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Mobile location based services software, 0.325), (Route navigation software, 0.325), (database reporting software, 0.275), (Geographic information system, 0.225).

5. **Rail-Track Laying and Maintenance Equipment Operators** – Impact Score 0.514: This occupation has a high impact score because it is influenced by the following key skills that can be automated: time accounting software, spreadsheet software and office suite software. In addition, AI robotics can replace human labor in this occupation.

   The technology skills for this occupation and their impact scores: (Time accounting software, 0.475), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325)

***Top five occupations with the least impact within the Transportation and Warehousing industry***

Among the occupations in the Transportation and Warehousing industry, here are the top five occupations **least impacted** by AI:

1. Transportation, Storage, and Distribution Managers
2. Gas Compressor and Gas Pumping Station Operators
3. Aircraft Service Attendants
4. Airline Pilots, Copilots, and Flight Engineers
5. Signal and Track Switch Repairers

Impact score analysis of the top five **least-impacted** occupations within the Transportation and Warehousing industry:

1. **Transportation, Storage, and Distribution Managers** – Impact Score 0.319: This occupation has a low impact score because of the following least-impacted skills: label making software, geographic information system, business intelligence and data analysis software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: Backup or archival software, 0.550), (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Metadata management software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Route navigation software, 0.325), (Mobile location based services software, 0.325), (Analytical or scientific software,

0.300), (Project management software, 0.300), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Label making software, 0.250), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175).

2. **Gas Compressor and Gas Pumping Station Operators** – Impact Score 0.314: This occupation has a low impact score because of its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Facilities management software, 0.325).

3. **Aircraft Service Attendants** – Impact Score 0.268: This occupation has a low impact score because it requires human labor that has few, low-impacted skills: inventory management software, information retrieval and spreadsheet software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Facilities management software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100).

4. **Airline Pilots, Copilots, and Flight Engineers** – Impact Score 0.265: This occupation has a low impact score because of the high human skills needed. In addition, the following least-impacted skills contribute to the low impact score: route navigation software, analytical or scientific software, information retrieval or search software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Route navigation software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100).

5. **Signal and Track Switch Repairers** – Impact Score 0.229: This occupation has the least impact score because of the few, least-impacted skills: electronic mail software, presentation software, facilities management software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Facilities management software, 0.325).

***A summary table of AI impact scores for ALL occupations within the Transportation and Warehousing industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Transportation, Storage, and Distribution Managers | 0.508 | 0.189 | 0.319 |
| Reservation and Transportation Ticket Agents and Travel Clerks | 0.634 | 0.139 | 0.495 |
| Cargo and Freight Agents | 0.678 | 0.139 | 0.539 |
| Couriers and Messengers | 0.551 | 0.144 | 0.407 |
| Dispatchers, Except Police, Fire, and Ambulance | 0.664 | 0.144 | 0.520 |
| Weighers, Measurers, Checkers, and Samplers, Recordkeeping | 0.549 | 0.072 | 0.477 |
| Rail-Track Laying and Maintenance Equipment Operators | 0.598 | 0.083 | 0.514 |
| Avionics Technicians | 0.628 | 0.117 | 0.511 |

*continued on next page*

*A summary table of AI impact scores for ALL occupations within the Transportation and Warehousing industry (cont'd.)*

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Electrical and Electronics Installers and Repairers, Transportation Equipment | 0.568 | 0.167 | 0.402 |
| Aircraft Mechanics and Service Technicians | 0.522 | 0.111 | 0.411 |
| Bus and Truck Mechanics and Diesel Engine Specialists | 0.666 | 0.122 | 0.544 |
| Rail Car Repairers | 0.510 | 0.106 | 0.404 |
| Signal and Track Switch Repairers | 0.396 | 0.167 | 0.229 |
| Aircraft Cargo Handling Supervisors | 0.564 | 0.122 | 0.442 |
| Airline Pilots, Copilots, and Flight Engineers | 0.395 | 0.130 | 0.265 |
| Commercial Pilots | 0.586 | 0.233 | 0.353 |
| Airfield Operations Specialists | 0.663 | 0.183 | 0.480 |
| Flight Attendants | 0.546 | 0.089 | 0.458 |
| Heavy and Tractor-Trailer Truck Drivers | 0.546 | 0.071 | 0.475 |
| Light Truck Drivers | 0.481 | 0.072 | 0.409 |
| Shuttle Drivers and Chauffeurs | 0.507 | 0.046 | 0.461 |
| Locomotive Engineers | 0.510 | 0.122 | 0.388 |
| Rail Yard Engineers, Dinkey Operators, and Hostlers | 0.591 | 0.128 | 0.463 |
| Railroad Brake, Signal, and Switch Operators and Locomotive Firers | 0.597 | 0.117 | 0.481 |
| Railroad Conductors and Yardmasters | 0.507 | 0.128 | 0.379 |
| Sailors and Marine Oilers | 0.489 | 0.094 | 0.395 |
| Captains, Mates, and Pilots of Water Vessels | 0.542 | 0.106 | 0.437 |
| Motorboat Operators | 0.611 | 0.172 | 0.439 |
| Ship Engineers | 0.550 | 0.150 | 0.400 |
| Aircraft Service Attendants | 0.393 | 0.125 | 0.268 |
| Passenger Attendants | 0.483 | 0.128 | 0.355 |
| Conveyor Operators and Tenders | 0.462 | 0.111 | 0.350 |
| Industrial Truck and Tractor Operators | 0.608 | 0.094 | 0.514 |
| Laborers and Freight, Stock, and Material Movers, Hand | 0.514 | 0.154 | 0.360 |
| Gas Compressor and Gas Pumping Station Operators | 0.470 | 0.156 | 0.314 |
| Tank Car, Truck, and Ship Loaders | 0.642 | 0.111 | 0.531 |

## 3b.9. Professional, Scientific, and Technical Services

***Top five occupations with the largest negative impact within the Professional, Scientific, and Technical Services industry***

Among the occupations in the Professional, Scientific, and Technical Services industry, here are the top five occupations **most impacted** by AI:

1. Architectural and Engineering Managers
2. Human Resources Managers
3. Surveyors
4. Web and Digital Interface Designers
5. Public Relations Specialists

Impact score analysis of top five occupations within the Professional, Scientific, and Technical Services industry **most impacted** by AI:

1. **Architectural and Engineering Managers** – Impact Score 0.631: This occupation has the highest impact score because it is influenced by the following key skills that AI can replace: document management software, time accounting software, materials requirements planning logistics and supply chain software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Industrial control software, 0.450), (Expert system software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (File versioning software, 0.325), (Configuration management software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Network monitoring software, 0.325), (Accounting software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Inventory management software, 0.325), (Transaction server software, 0.300), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Access software, 0.275), (Content workflow software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Program testing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175).

2. **Human Resources Managers** – Impact Score 0.594: This occupation has a high impact score because AI automates many task in these skill areas: document management software, time accounting software, compliance software, training software and word processing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Charting software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (Multi-media educational software, 0.250), (Web page creation and

editing software, 0.225), (Business intelligence and data analysis software, 0.175).

3. **Surveyors** – Impact Score 0.582: This occupation has a high impact score because it is influenced by the following three key skills: Document management software, Time accounting software, Word processing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Data conversion software, 0.350), (Graphics or photo imaging software, 0.350), (Mobile location based services software, 0.325), (Computer aided design CAD software, 0.325), (Route navigation software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Application server software, 0.250), (Geographic information system, 0.225), (Information retrieval or search software, 0.100).

4. **Web and Digital Interface Designers** – Impact Score 0.581: This occupation has a high impact score because it is influenced by the following three key skills: Document management software, Transaction security and virus protection software, Word processing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Industrial control software, 0.450), (Expert system software, 0.450), (Graphical user interface development software, 0.425), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Video creation and editing software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Storage networking software, 0.375), (Portal server software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (File versioning software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Metadata management software, 0.325), (Computer based training software, 0.325), (Network monitoring software, 0.325), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Project management software, 0.300), (Transaction server software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Requirements analysis and system architecture software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Communications server software, 0.250), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Program testing software, 0.225), (Business intelligence and data analysis software, 0.175).

5. **Public Relations Specialists – Impact Score** 0.578: This occupation has a highest impact score because it is influenced by the following key skills that AI is more efficient at doing: document management software, word processing software, video creation and editing, database software and desktop publishing.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Network conferencing software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video

conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Web platform development software, 0.325), (Network monitoring software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Data mining software, 0.275), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Information retrieval or search software, 0.100).

***Top five occupations with the least impact within the Professional, Scientific, and Technical Services industry***

Among the occupations in the Professional, Scientific, and Technical Services industry, here are the top five occupations **least impacted** by AI:

1. Network and Computer Systems Administrators
2. Anthropologists and Archeologists
3. Computer Network Architects
4. Computer Systems Analysts
5. Management Analysts

Impact score analysis of the top five **least-impacted** occupation within the Professional, Scientific, and Technical Services industry:

1. **Network and Computer Systems Administrators** – Impact Score 0.172: This occupation has a low impact score because these occupations require a depth and breadth of interdependent technical skills that AI cannot duplicate. While each skill by itself might be AI enabled, the combination of all the many skills in the aggregate, make the occupation less vulnerable to AI. In addition, some skills will not be significantly impacted by AI – in this context: geographic information system, program testing software, system design, business intelligence and data analysis software.

   The technology skills for this occupation and their impact scores: (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Document management software, 0.500), (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Expert system software, 0.450), (Industrial control software, 0.450), (Object oriented database management software, 0.425), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Storage networking software, 0.375), (Authentication server software, 0.375), (Platform interconnectivity software, 0.375), (Portal server software, 0.375), (Spreadsheet software, 0.375), (Pattern design software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Computer imaging software, 0.375), (Development environment software, 0.350), (Cloud-based protection or security software, 0.350), (Network operating system enhancement software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (File versioning software, 0.325), (Optical network management software, 0.325), (Presentation software, 0.325), (Network monitoring software, 0.325), (Computer based training software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Configuration management software, 0.325), (Metadata management software, 0.325), (Web platform development software, 0.325), (Medical software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Transaction server software, 0.300), (Analytical or scientific software, 0.300), (Compiler and decompiler software, 0.300), (Gateway software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (Administration software, 0.275), (database reporting software, 0.275), (Access software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Human resources software,

0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Geographic information system, 0.225), (Program testing software, 0.225), (Business intelligence and data analysis software, 0.175).

2. **Anthropologists and Archeologists** – Impact Score 0.167: This occupation has a low impact score because the key skills, i.e. field work, cannot be done by AI. Further, these occupations utilize skills, in combination, that are least-impacted skills: object or component oriented development software, map creation software, web editing software, geographic information system, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Voice recognition software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Mobile location based services software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Geographic information system, 0.225).

3. **Computer Network Architects** – Impact Score 0.164: This occupation has a low impact score because these occupations require a depth and breadth of interdependent technical and analytical skills that AI cannot duplicate making, less vulnerable to AI. The least-impacted skills: network security, virtual private network VPN management software, geographic information system, business intelligence and data analysis software, LAN software and cloud computing.

   The technology skills for this occupation and their impact scores: (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Internet directory services software, 0.475), (Time accounting software, 0.475), (Transaction security and virus protection software, 0.475), (Expert system software, 0.450), (Industrial control software, 0.450), (Word processing software, 0.450), (Bridge software, 0.425), (Object oriented database management software, 0.425), (LAN software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (WAN switching software and firmware, 0.400), (Cloud-based management software, 0.400), (Storage networking software, 0.375), (Financial analysis software, 0.375), (Authentication server software, 0.375), (Spreadsheet software, 0.375), (Pattern design software, 0.375), (Video creation and editing software, 0.375), (Portal server software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Network operating system enhancement software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based protection or security software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Optical network management software, 0.325), (Network monitoring software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Switch or router software, 0.325), (Metadata management software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Computer aided design CAD software, 0.325), (Computer based training software, 0.325), (Transaction server software, 0.300), (Project management software, 0.300), (Instant messaging software, 0.300), (Analytical or scientific software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Access software, 0.275), (Administration software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Object

or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Program testing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175).

4. **Computer Systems Analysts** – Impact Score 0.156: This occupation has a low impact score because these occupations require both a depth and breadth of analytical skills combined with technical skills that AI cannot duplicate. The least-impacted skills: helpdesk software, backup software, business intelligence and data analysis software and information retrieval.

   The technology skills for this occupation and their impact scores: (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Document management software, 0.500), (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Industrial control software, 0.450), (Graphical user interface development software, 0.425), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Pattern design software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Network conferencing software, 0.375), (Video creation and editing software, 0.375), (Storage networking software, 0.375), (Portal server software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Data conversion software, 0.350), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Configuration management software, 0.325), (Web platform development software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Metadata management software, 0.325), (Network monitoring software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Compiler and decompiler software, 0.300), (Instant messaging software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (Requirements analysis and system architecture software, 0.275), (Administration software, 0.275), (Access software, 0.275), (database reporting software, 0.275), (Content workflow software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (database management system software, 0.275), (Human resources software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Program testing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100).

5. **Management Analysts** – Impact Score 0.177: This occupation has a low impact score because these occupations require a depth and breadth of analytical skills in combination with a deep set of technical skills. This integration of skills makes these jobs less vulnerable to AI. The least-impacted skills: program testing software, business intelligence and data analysis software, information retrieval or search software.

   The technology skills for this occupation and their impact scores: (Backup or archival software, 0.550), (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Industrial control software, 0.450), (Object

oriented database management software, 0.425), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Portal server software, 0.375), (Video creation and editing software, 0.375), (Network conferencing software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Video conferencing software, 0.325), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Web platform development software, 0.325), (Network monitoring software, 0.325), (Configuration management software, 0.325), (Medical software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Accounting software, 0.325), (Metadata management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Transaction server software, 0.300), (Clustering software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Access software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (database management system software, 0.275), (Human resources software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225), (Program testing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100).

***A summary table of AI impact scores for ALL occupations within the Professional, Scientific, and Technical Services industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Chief Executives | 0.618 | 0.067 | 0.551 |
| Advertising and Promotions Managers | 0.559 | 0.244 | 0.314 |
| Marketing Managers | 0.601 | 0.111 | 0.490 |
| Public Relations Managers | 0.567 | 0.110 | 0.457 |
| Computer and Information Systems Managers | 0.715 | 0.181 | 0.534 |
| Human Resources Managers | 0.722 | 0.128 | 0.594 |
| Training and Development Managers | 0.653 | 0.128 | 0.525 |
| Architectural and Engineering Managers | 0.747 | 0.117 | 0.631 |
| Natural Sciences Managers | 0.643 | 0.156 | 0.487 |
| Project Management Specialists | 0.615 | 0.167 | 0.449 |
| Market Research Analysts and Marketing Specialists | 0.586 | 0.150 | 0.436 |
| Accountants and Auditors | 0.671 | 0.118 | 0.553 |
| Tax Preparers | 0.640 | 0.094 | 0.546 |
| Computer and Information Research Scientists | 0.664 | 0.256 | 0.409 |
| Computer Network Support Specialists | 0.703 | 0.142 | 0.561 |

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***A summary table of AI impact scores for ALL occupations within the Professional, Scientific, and Technical Services industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Web Developers | 0.674 | 0.189 | 0.485 |
| Operations Research Analysts | 0.583 | 0.178 | 0.405 |
| Statisticians | 0.602 | 0.156 | 0.447 |
| Data Scientists | 0.628 | 0.278 | 0.350 |
| Architects, Except Landscape and Naval | 0.456 | 0.144 | 0.312 |
| Landscape Architects | 0.635 | 0.083 | 0.552 |
| Surveyors | 0.743 | 0.161 | 0.582 |
| Bioengineers and Biomedical Engineers | 0.661 | 0.199 | 0.462 |
| Civil Engineers | 0.596 | 0.133 | 0.463 |
| Computer Hardware Engineers | 0.663 | 0.241 | 0.422 |
| Environmental Engineers | 0.573 | 0.194 | 0.378 |
| Marine Engineers and Naval Architects | 0.520 | 0.167 | 0.353 |
| Mining and Geological Engineers, Including Mining Safety Engineers | 0.529 | 0.161 | 0.367 |
| Architectural and Civil Drafters | 0.562 | 0.189 | 0.373 |
| Electrical and Electronics Drafters | 0.602 | 0.122 | 0.480 |
| Civil Engineering Technologists and Technicians | 0.540 | 0.189 | 0.351 |
| Environmental Engineering Technologists and Technicians | 0.529 | 0.183 | 0.346 |
| Calibration Technologists and Technicians | 0.544 | 0.167 | 0.378 |
| Surveying and Mapping Technicians | 0.650 | 0.138 | 0.512 |
| Animal Scientists | 0.602 | 0.200 | 0.402 |
| Soil and Plant Scientists | 0.503 | 0.111 | 0.392 |
| Biochemists and Biophysicists | 0.612 | 0.143 | 0.468 |
| Microbiologists | 0.591 | 0.169 | 0.422 |
| Medical Scientists, Except Epidemiologists | 0.598 | 0.150 | 0.448 |
| Astronomers | 0.544 | 0.094 | 0.450 |
| Physicists | 0.586 | 0.144 | 0.442 |
| Atmospheric and Space Scientists | 0.639 | 0.144 | 0.495 |
| Materials Scientists | 0.558 | 0.167 | 0.391 |
| Survey Researchers | 0.602 | 0.172 | 0.430 |
| Sociologists | 0.529 | 0.122 | 0.407 |
| Anthropologists and Archeologists | 0.417 | 0.250 | 0.167 |
| Agricultural Technicians | 0.443 | 0.172 | 0.271 |
| Biological Technicians | 0.543 | 0.133 | 0.410 |
| Environmental Science and Protection Technicians, Including Health | 0.509 | 0.083 | 0.425 |

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***A summary table of AI impact scores for ALL occupations within the Professional, Scientific, and Technical Services industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Geological Technicians, Except Hydrologic Technicians | 0.634 | 0.117 | 0.517 |
| Lawyers | 0.641 | 0.083 | 0.558 |
| Arbitrators, Mediators, and Conciliators | 0.571 | 0.144 | 0.427 |
| Paralegals and Legal Assistants | 0.688 | 0.222 | 0.465 |
| Title Examiners, Abstractors, and Searchers | 0.636 | 0.161 | 0.475 |
| Art Directors | 0.531 | 0.222 | 0.309 |
| Graphic Designers | 0.595 | 0.183 | 0.412 |
| Interior Designers | 0.667 | 0.150 | 0.517 |
| Public Relations Specialists | 0.678 | 0.100 | 0.578 |
| Technical Writers | 0.665 | 0.128 | 0.537 |
| Writers and Authors | 0.608 | 0.228 | 0.381 |
| Interpreters and Translators | 0.596 | 0.239 | 0.357 |
| Photographers | 0.573 | 0.139 | 0.434 |
| Veterinarians | 0.619 | 0.100 | 0.519 |
| Veterinary Technologists and Technicians | 0.487 | 0.108 | 0.379 |
| Veterinary Assistants and Laboratory Animal Caretakers | 0.624 | 0.117 | 0.508 |
| Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel | 0.591 | 0.128 | 0.463 |
| Demonstrators and Product Promoters | 0.628 | 0.172 | 0.455 |
| Bookkeeping, Accounting, and Auditing Clerks | 0.637 | 0.122 | 0.515 |
| Payroll and Timekeeping Clerks | 0.534 | 0.072 | 0.462 |
| File Clerks | 0.592 | 0.128 | 0.464 |
| Legal Secretaries and Administrative Assistants | 0.620 | 0.146 | 0.474 |
| Statistical Assistants | 0.640 | 0.261 | 0.379 |
| Paperhangers | 0.362 | 0.057 | 0.305 |
| Photographic Process Workers and Processing Machine Operators | 0.494 | 0.161 | 0.332 |
| Database Architects | 0.671 | 0.206 | 0.466 |
| Geoscientists, Except Hydrologists and Geographers | 0.579 | 0.144 | 0.434 |
| Web and Digital Interface Designers | 0.731 | 0.150 | 0.581 |
| Management Analysts | 0.221 | 0.044 | 0.177 |
| Computer Systems Analysts | 0.206 | 0.050 | 0.156 |
| Information Security Analysts | 0.241 | 0.056 | 0.186 |
| Computer User Support Specialists | 0.237 | 0.050 | 0.187 |
| Computer Network Architects | 0.208 | 0.044 | 0.164 |
| Database Administrators | 0.253 | 0.056 | 0.197 |

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*A summary table of AI impact scores for ALL occupations within the Professional, Scientific, and Technical Services industry (cont'd.)*

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Network and Computer Systems Administrators | 0.247 | 0.075 | 0.172 |
| Computer Programmers | 0.258 | 0.083 | 0.174 |
| Software Developers | 0.231 | 0.050 | 0.181 |
| Software Quality Assurance Analysts and Testers | 0.263 | 0.075 | 0.188 |

## 3b.10. Accommodation and Food Services

***Top five occupations with the largest negative impact within the Accommodation and Food Services industry***

Among the occupations in the Accommodation and Food Services industry, here are the top five occupations **most impacted** by AI:

1. Driver/Sales Workers
2. Food Preparation Workers
3. Hotel, Motel, and Resort Desk Clerks
4. Food Service Managers
5. First-Line Supervisors of Food Preparation and Serving Workers

In general, these occupations are vulnerable to AI because these occupations can be automated with technology. Impact score analysis of top-5 occupation within the Accommodation and Food Services industry:

1. **Driver/Sales Workers** – Impact Score 0.589: This occupation has the highest impact score because this job can be automated and is influenced by the following few skills AI can do: spreadsheet software, map creation software, database user interface and query software.

   The technology skills for this occupation and their impact scores: (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Inventory management software, 0.325), (Project management software, 0.300), (Communications server software, 0.250).

2. **Food Preparation Workers** – Impact Score 0.549: This occupation has a high impact score because it can be automated and the few skills required can be delegated to AI: Spreadsheet software, database user interface and query software.

   The technology skills for this occupation and their impact scores: (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Computer based training software, 0.325).

3. **Hotel, Motel, and Resort Desk Clerks** – Impact Score 0.542: This occupation has a high impact score because it is influenced by few skill requirements and these skills can be replaced with AI: word processing software, financial analysis software, spreadsheet software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Facilities management software, 0.325), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225).

4. **Food Service Managers** – Impact Score 0.527: This occupation has a high impact score because it can be automated and the few skills required can be delegated to AI: time

accounting software, calendar and scheduling software, word processing software.

The technology skills for this occupation and their impact scores: (Time accounting software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Point of sale POS software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Object or component oriented development software, 0.275), (Communications server software, 0.250), (Web page creation and editing software, 0.225).

5. **First-Line Supervisors of Food Preparation and Serving Workers** – Impact Score 0.525: This occupation has a high impact score because this job can be automated and the few skills required can be delegated to AI: word processing software, calendar and scheduling software and spreadsheet software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Procurement software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Point of sale POS software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Communications server software, 0.250).

***Top five occupations with the least impact within the Accommodation and Food Services industry***

Among the occupations in the Accommodation and Food Services industry, here are the top five occupations **least impacted** by AI:

1. Dining Room and Cafeteria Attendants and Bartender Helpers
2. First-Line Supervisors of Gambling Services Workers
3. Cooks, Fast Food
4. Baggage Porters and Bellhops
5. Dishwashers

Impact score analysis of the top five **least-impacted** occupations within the Accommodation and Food Services industry:

1. **Dining Room and Cafeteria Attendants and Bartender Helpers** – Impact Score 0.307: This occupation has a low impact score because of its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Operating system software, 0.425), (Spreadsheet software, 0.375), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225).

2. **First-Line Supervisors of Gambling Services Workers** – Impact Score 0.301: This occupation has a low impact score because of the following least-impacted skills: electronic mail software, presentation software, project management software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Project management software, 0.300).

3. **Cooks, Fast Food** – Impact Score 0.290: This occupation has a low impact score because of its dependency on a limited number of technology skills.

The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Point of sale POS software, 0.300).

4. **Baggage Porters and Bellhops** – Impact Score 0.243: This occupation has a low impact score because of its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350).

5. **Dishwashers** – Impact Score 0.169: This occupation has the least impact score because of its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Operating system software, 0.425), (Web page creation and editing software, 0.225).

***A summary table of AI impact scores for ALL occupations within the Accommodation and Food Services industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Food Service Managers | 0.656 | 0.129 | 0.527 |
| Lodging Managers | 0.614 | 0.128 | 0.486 |
| Chefs and Head Cooks | 0.543 | 0.106 | 0.437 |
| First-Line Supervisors of Food Preparation and Serving Workers | 0.620 | 0.094 | 0.525 |
| Cooks, Fast Food | 0.448 | 0.159 | 0.290 |
| Cooks, Restaurant | 0.513 | 0.079 | 0.434 |
| Cooks, Short Order | 0.578 | 0.111 | 0.467 |
| Food Preparation Workers | 0.628 | 0.079 | 0.549 |
| Bartenders | 0.423 | 0.063 | 0.360 |
| Fast Food and Counter Workers | 0.602 | 0.106 | 0.496 |
| Waiters and Waitresses | 0.402 | 0.087 | 0.315 |
| Dining Room and Cafeteria Attendants and Bartender Helpers | 0.417 | 0.110 | 0.307 |
| Dishwashers | 0.311 | 0.142 | 0.169 |
| Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop | 0.591 | 0.106 | 0.486 |
| Maids and Housekeeping Cleaners | 0.548 | 0.091 | 0.457 |
| First-Line Supervisors of Gambling Services Workers | 0.486 | 0.184 | 0.301 |
| Gambling Dealers | 0.474 | 0.078 | 0.396 |
| Baggage Porters and Bellhops | 0.367 | 0.124 | 0.243 |
| Hotel, Motel, and Resort Desk Clerks | 0.647 | 0.106 | 0.542 |
| Driver/Sales Workers | 0.695 | 0.106 | 0.589 |

## 3b.11. Other Services Except Public Administration

***Top five occupations with the largest negative impact within the Other Services Except Public Administration industry***

Among the occupations in the Other Services Except Public Administration industry, here are the top five occupations **most impacted** by AI:

1. Directors, Religious Activities and Education
2. Fundraising Managers
3. Meeting, Convention, and Event Planners
4. Animal Caretakers
5. Clergy

Impact score analysis of top five occupations within the Other Services Except Public Administration industry **most impacted** by AI:

1. **Directors, Religious Activities and Education** – Impact Score 0.597: This occupation has the highest impact score because it is influenced by the following key skills: publishing, word processing software, video streaming, graphics, scheduling software and video conferencing.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225).

2. **Fundraising Managers** – Impact Score 0.578: this occupation has a high impact score because it is influenced by the following three key skills: CRM management, document management software, word processing software, video creation and editing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Web platform development software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175).

3. **Meeting, Convention, and Event Planners** – Impact Score 0.557: This occupation has a high impact score because many of the functions are able to be automated including: CRM software, word processing software, Network conferencing software, Financial analysis software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Network conferencing software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Web platform development software, 0.325), (Facilities management software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing

software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225).

4. **Animal Caretakers** – Impact Score 0.542: This occupation has a high impact score because it is influenced by the following three key skills: Calendar and scheduling software, Word processing software, Spreadsheet software.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325).

5. **Clergy** – Impact Score 0.535: This occupation has a high impact score because digital services can replace live gatherings with AI replacing many of the skills: calendar and scheduling software, word processing software, spreadsheet software and web editing.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225)

***Top five occupations with the least impact within the Other Services Except Public Administration industry***

Among the occupations in the Other Services Except Public Administration industry, here are the top five occupations **least impacted** by AI:

1. Music Directors and Composers
2. Laundry and Dry-Cleaning Workers
3. Parking Attendants
4. Shampooers
5. Home Appliance Repairers

Impact score analysis of the top five **least-impacted** occupations within the Other Services Except Public Administration industry due to AI:

1. **Music Directors and Composers** – Impact Score 0.319: This occupation has a low impact score because of the dominance of human activity and the limited number of skills required that are least-impacted by AI: office suite software, presentation software, desktop publishing software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Music or sound editing software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Desktop publishing software, 0.275).

2. **Laundry and Dry-Cleaning Workers** – Impact Score 0.277: This occupation has a low impact score because of the physical nature of this job and the few, least-impacted skills: electronic mail software, office suite software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Point of sale POS software, 0.300).

3. **Parking Attendants** – Impact Score 0.270: This occupation has a low impact score because of the physical nature of the job and the few, least-impacted skills: electronic mail software, office suite software, Point of sale POS software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Point of sale POS software, 0.300).

4. **Shampooers** – Impact Score 0.262: This occupation has a low impact score because of the physical nature of the job and the few, least-impacted skills: electronic mail

software, inventory management software, Web editing software, and its dependency on a limited number of technology skills.

The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Inventory management software, 0.325), (Web page creation and editing software, 0.225).

5. **Home Appliance Repairers** – Impact Score 0.251: This occupation has the least impact score because of the following least-impacted skills: office suite software, electronic mail software, route navigation software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Route navigation software, 0.325).

***A summary table of AI impact scores for ALL occupations within the Other Services Except Public Administration industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Fundraising Managers | 0.689 | 0.111 | 0.578 |
| Funeral Home Managers | 0.557 | 0.126 | 0.431 |
| Labor Relations Specialists | 0.646 | 0.128 | 0.519 |
| Meeting, Convention, and Event Planners | 0.674 | 0.117 | 0.557 |
| Fundraisers | 0.663 | 0.185 | 0.478 |
| Clergy | 0.578 | 0.043 | 0.535 |
| Directors, Religious Activities and Education | 0.665 | 0.068 | 0.597 |
| Music Directors and Composers | 0.497 | 0.178 | 0.319 |
| Musicians and Singers | 0.507 | 0.068 | 0.439 |
| Massage Therapists | 0.551 | 0.230 | 0.321 |
| Cooks, Private Household | 0.540 | 0.083 | 0.456 |
| First-Line Supervisors of Personal Service Workers | 0.495 | 0.167 | 0.328 |
| Animal Caretakers | 0.625 | 0.083 | 0.542 |
| Embalmers | 0.492 | 0.019 | 0.473 |
| Crematory Operators | 0.613 | 0.090 | 0.523 |
| Funeral Attendants | 0.436 | 0.077 | 0.359 |
| Morticians, Undertakers, and Funeral Arrangers | 0.585 | 0.083 | 0.501 |
| Barbers | 0.427 | 0.064 | 0.363 |
| Hairdressers, Hairstylists, and Cosmetologists | 0.439 | 0.070 | 0.369 |
| Manicurists and Pedicurists | 0.539 | 0.064 | 0.474 |
| Shampooers | 0.455 | 0.193 | 0.262 |
| Skincare Specialists | 0.529 | 0.122 | 0.407 |
| First-Line Supervisors of Mechanics, Installers, and Repairers | 0.549 | 0.173 | 0.375 |
| Automotive Body and Related Repairers | 0.483 | 0.133 | 0.350 |

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***A summary table of AI impact scores for ALL occupations within the Other Services Except Public Administration industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Automotive Glass Installers and Repairers | 0.497 | 0.100 | 0.397 |
| Home Appliance Repairers | 0.384 | 0.133 | 0.251 |
| Camera and Photographic Equipment Repairers | 0.544 | 0.106 | 0.439 |
| Laundry and Dry-Cleaning Workers | 0.450 | 0.172 | 0.277 |
| Pressers, Textile, Garment, and Related Materials | 0.506 | 0.172 | 0.333 |
| Parking Attendants | 0.492 | 0.222 | 0.270 |
| Cleaners of Vehicles and Equipment | 0.610 | 0.106 | 0.504 |

## 3b.12. Information

***Top five occupations with the largest negative impact within the Information industry***

Among the occupations in the Information industry, here are the top five occupations **most impacted** by AI:

1. Telecommunications Equipment Installers and Repairers, Except Line Installers
2. Advertising Sales Agents
3. Motion Picture Projectionists
4. Actors
5. Camera Operators, Television, Video, and Film

Impact score analysis of top five occupations within the Information industry **most impacted** by AI:

1. **Telecommunications Equipment Installers and Repairers, Except Line Installers** – Impact Score 0.573: This occupation has the highest impact because many of the skills required can be automated by AI: expert system software, industrial control software and network software.

   The technology skills for this occupation and their impact scores: (Expert system software, 0.450), (Industrial control software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Communications server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Geographic information system, 0.225).

2. **Advertising Sales Agents** – Impact Score 0.519: This occupation has a high impact score because it is influenced by a preponderance of AI enabled skills: ERP skills, CRM software, word processing software, calendar and scheduling software and spreadsheet software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Desktop publishing software, 0.275), (Sales and marketing software, 0.225).

3. **Motion Picture Projectionists** – Impact Score 0.483: This occupation has a high impact score because it requires relatively few skills,

many of which can be automated: word processing software, operating system software and video creation and editing software.

The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225).

4. **Actors** – Impact Score 0.468: This occupation has a high impact score because the physical job represents a low percentage of an actors' time relative to all the other skills required that are highly impacted by AI such as: video creation, video conferencing and word processing. Further, AI will be used more and more in visual (film and tv production) communications.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225).

5. **Camera Operators, Television, Video, and Film** – Impact Score 0.466: This occupation has a high impact score because it is influenced by the following key skills: cloud data software, document management software, word processing software, graphic software, video creation and editing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225).

### *Top five occupations with the least impact within the Information industry*

Among the occupations in the Information industry, here are the top five occupations **least impacted** by AI:

1. Makeup Artists, Theatrical and Performance
2. Radio, Cellular, and Tower Equipment Installers and Repairers
3. Door-to-Door Sales Workers, News and Street Vendors, and Related Workers
4. Ushers, Lobby Attendants, and Ticket Takers
5. Producers and Directors

Impact score analysis of the top five **least-impacted** occupation within the Information industry due to AI:

1. **Makeup Artists, Theatrical and Performance** – Impact Score 0.357: This occupation has a low impact score because of the following least-impacted skills: Accounting software, Instant messaging software, Web page creation and editing software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Accounting software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225).

2. **Radio, Cellular, and Tower Equipment Installers and Repairers** – Impact Score 0.349: This occupation has a low impact score because of the physical aspect of the job and the following

least-impacted skills: analytical or scientific software, project management software, geographic information system, and its dependency on a limited number of technology skills.

The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Geographic information system, 0.225).

3. **Door-to-Door Sales Workers, News and Street Vendors, and Related Workers** – Impact Score 0.331: This occupation has a low impact score because of its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Route navigation software, 0.325), (Web page creation and editing software, 0.225).

4. **Ushers, Lobby Attendants, and Ticket Takers** – Impact Score 0.329: This occupation has a low impact score because of the following least-impacted skills: electronic mail software, optical character reader OCR or scanning software, presentation software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325).

5. **Producers and Directors** – Impact Score 0.270: This occupation has the least impact score because of the dominance of the human skills and the following least-impacted skills: desktop communications software, web page creation, video creation and editing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Music or sound editing software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Content workflow software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225).

***A summary table of AI impact scores for ALL occupations within the Information industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Special Effects Artists and Animators | 0.646 | 0.278 | 0.368 |
| Actors | 0.560 | 0.092 | 0.468 |
| Producers and Directors | 0.498 | 0.228 | 0.270 |
| Broadcast Announcers and Radio Disc Jockeys | 0.510 | 0.072 | 0.438 |
| News Analysts, Reporters, and Journalists | 0.561 | 0.144 | 0.417 |
| Editors | 0.593 | 0.133 | 0.459 |
| Audio and Video Technicians | 0.568 | 0.167 | 0.401 |
| Broadcast Technicians | 0.574 | 0.194 | 0.379 |

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*A summary table of AI impact scores for ALL occupations within the Information industry (cont'd.)*

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Sound Engineering Technicians | 0.528 | 0.128 | 0.400 |
| Lighting Technicians | 0.495 | 0.110 | 0.385 |
| Camera Operators, Television, Video, and Film | 0.611 | 0.144 | 0.466 |
| Film and Video Editors | 0.549 | 0.189 | 0.360 |
| Motion Picture Projectionists | 0.583 | 0.100 | 0.483 |
| Ushers, Lobby Attendants, and Ticket Takers | 0.412 | 0.083 | 0.329 |
| Makeup Artists, Theatrical and Performance | 0.480 | 0.122 | 0.357 |
| Advertising Sales Agents | 0.619 | 0.100 | 0.519 |
| Door-to-Door Sales Workers, News and Street Vendors, and Related Workers | 0.427 | 0.097 | 0.331 |
| Proofreaders and Copy Markers | 0.660 | 0.194 | 0.466 |
| Radio, Cellular, and Tower Equipment Installers and Repairers | 0.522 | 0.172 | 0.349 |
| Telecommunications Equipment Installers and Repairers, Except Line Installers | 0.695 | 0.122 | 0.573 |
| Telecommunications Line Installers and Repairers | 0.575 | 0.122 | 0.453 |
| Desktop Publishers | 0.635 | 0.183 | 0.451 |

## 3b.13. Manufacturing

***Top five occupations with the largest negative impact within the Manufacturing industry***

Among the occupations in the Manufacturing industry, here are the top five occupations **most impacted** by AI:

1. Foundry Mold and Coremakers
2. Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
3. Timing Device Assemblers and Adjusters
4. Printing Press Operators
5. First-Line Supervisors of Production and Operating Workers

Impact score analysis of top five occupations within the Manufacturing industry **most impacted** by AI:

1. **Foundry Mold and Coremakers** – Impact Score 0.642: This occupation has the highest impact score because it is AI enabled and it influenced by the following key skills: industrial control software, computer aided design CAD software, Computer aided manufacturing CAM software.

   The technology skills for this occupation and their impact scores: (Industrial control software, 0.450), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Inventory management software, 0.325).

2. **Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic** – Impact Score 0.605: This occupation has a high impact score because AI can be used in this occupation. The following skill are examples where AI can be utilized: industrial control software, inventory management software, object or

component oriented development software.

The technology skills for this occupation and their impact scores: (Industrial control software, 0.450), (Inventory management software, 0.325), (Object or component oriented development software, 0.275).

3. **Timing Device Assemblers and Adjusters** – Impact Score 0.599: This occupation has a high impact score because it is influenced by the following AI powered key skills: internet browser software, database user interface and query software and POS software.

   The technology skills for this occupation and their impact scores: (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Point of sale POS software, 0.300).

4. **Printing Press Operators** – Impact Score 0.594: This occupation has a high impact score because it is highly able to be automated, influenced by the following key skills: document management software, industrial control software, word processing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Industrial control software, 0.450), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275).

5. **First-Line Supervisors of Production and Operating Workers** – Impact Score 0.588: This occupation has a high impact score because it is influenced by the following key skills that AI can automate: time accounting software, materials requirements planning logistics and supply chain software, word processing software.

   The technology skills for this occupation and their impact scores: (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise application integration software, 0.275), (Human resources software, 0.275).

***Top five occupations with the least impact within the Manufacturing industry***

Among the occupations in the Manufacturing industry, here are the top five occupations **least impacted** by AI:

1. Welders, Cutters, Solderers, and Brazers
2. Aerospace Engineers
3. Cooling and Freezing Equipment Operators and Tenders
4. Food Scientists and Technologists
5. Rolling Machine Setters, Operators, and Tenders, Metal and Plastic

Impact score analysis of the top five **least-impacted** occupations within the Manufacturing industry due to AI:

1. **Welders, Cutters, Solderers, and Brazers** – Impact Score 0.250: This occupation has a low impact score because of the following least-impacted skills: computer aided design CAD software, analytical or scientific software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Operating system software,

0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300).

2. **Aerospace Engineers** – Impact Score 0.242: This occupation has a low impact score because of the following least-impacted skills that automate many tasks: requirements analysis, system architecture software, object or component oriented development software, enterprise application integration software, and its dependency on technology skills that AI are well suited to complete.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Configuration management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Requirements analysis and system architecture software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275).

3. **Cooling and Freezing Equipment Operators and Tenders** – Impact Score 0.197: This occupation has a low impact score because of the following least-impacted skills: electronic mail, office suite software, presentation software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325).

4. **Food Scientists and Technologists** – Impact Score 0.172: This occupation has a low impact score because of the human skills and the following least-impacted skills: object or component oriented development software, sales and marketing software, business intelligence and data analysis software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175).

5. **Rolling Machine Setters, Operators, and Tenders, Metal and Plastic** – Impact Score 0.128: This occupation has the least impact score because of its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Internet browser software, 0.375), (Electronic mail software, 0.350).

*A summary table of AI impact scores for ALL occupations within the Manufacturing industry*

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Industrial Production Managers | 0.670 | 0.122 | 0.548 |
| Purchasing Managers | 0.643 | 0.093 | 0.550 |
| Logisticians | 0.619 | 0.189 | 0.430 |
| Aerospace Engineers | 0.514 | 0.272 | 0.242 |
| Chemical Engineers | 0.558 | 0.150 | 0.408 |
| Electrical Engineers | 0.567 | 0.111 | 0.456 |
| Electronics Engineers, Except Computer | 0.515 | 0.150 | 0.365 |
| Health and Safety Engineers, Except Mining Safety Engineers and Inspectors | 0.528 | 0.156 | 0.372 |
| Industrial Engineers | 0.622 | 0.250 | 0.372 |
| Materials Engineers | 0.624 | 0.200 | 0.424 |
| Mechanical Engineers | 0.588 | 0.139 | 0.450 |
| Mechanical Drafters | 0.626 | 0.167 | 0.459 |
| Aerospace Engineering and Operations Technologists and Technicians | 0.550 | 0.200 | 0.350 |
| Electrical and Electronic Engineering Technologists and Technicians | 0.655 | 0.122 | 0.533 |
| Electro-Mechanical and Mechatronics Technologists and Technicians | 0.603 | 0.211 | 0.391 |
| Industrial Engineering Technologists and Technicians | 0.629 | 0.189 | 0.440 |
| Mechanical Engineering Technologists and Technicians | 0.624 | 0.150 | 0.474 |
| Food Scientists and Technologists | 0.444 | 0.272 | 0.172 |
| Chemists | 0.528 | 0.161 | 0.367 |
| Food Science Technicians | 0.579 | 0.139 | 0.440 |
| Chemical Technicians | 0.519 | 0.133 | 0.386 |
| Occupational Health and Safety Technicians | 0.596 | 0.142 | 0.454 |
| Commercial and Industrial Designers | 0.601 | 0.150 | 0.451 |
| Production, Planning, and Expediting Clerks | 0.583 | 0.114 | 0.469 |
| Shipping, Receiving, and Inventory Clerks | 0.521 | 0.117 | 0.404 |
| Log Graders and Scalers | 0.466 | 0.133 | 0.333 |
| Electrical and Electronics Repairers, Commercial and Industrial Equipment | 0.599 | 0.122 | 0.477 |

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*A summary table of AI impact scores for ALL occupations within the Manufacturing industry (cont'd.)*

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Industrial Machinery Mechanics | 0.491 | 0.086 | 0.405 |
| Maintenance Workers, Machinery | 0.625 | 0.172 | 0.453 |
| Refractory Materials Repairers, Except Brickmasons | 0.540 | 0.039 | 0.501 |
| First-Line Supervisors of Production and Operating Workers | 0.688 | 0.100 | 0.588 |
| Aircraft Structure, Surfaces, Rigging, and Systems Assemblers | 0.574 | 0.144 | 0.429 |
| Coil Winders, Tapers, and Finishers | 0.633 | 0.128 | 0.506 |
| Engine and Other Machine Assemblers | 0.563 | 0.139 | 0.425 |
| Structural Metal Fabricators and Fitters | 0.427 | 0.173 | 0.254 |
| Fiberglass Laminators and Fabricators | 0.637 | 0.083 | 0.554 |
| Timing Device Assemblers and Adjusters | 0.638 | 0.039 | 0.599 |
| Bakers | 0.442 | 0.128 | 0.314 |
| Meat, Poultry, and Fish Cutters and Trimmers | 0.575 | 0.152 | 0.422 |
| Slaughterers and Meat Packers | 0.421 | 0.053 | 0.368 |
| Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders | 0.484 | 0.163 | 0.321 |
| Food Batchmakers | 0.609 | 0.106 | 0.503 |
| Food Cooking Machine Operators and Tenders | 0.622 | 0.100 | 0.522 |
| Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic | 0.380 | 0.111 | 0.269 |
| Forging Machine Setters, Operators, and Tenders, Metal and Plastic | 0.609 | 0.139 | 0.470 |
| Rolling Machine Setters, Operators, and Tenders, Metal and Plastic | 0.272 | 0.144 | 0.128 |
| Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic | 0.616 | 0.147 | 0.468 |
| Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 0.486 | 0.100 | 0.386 |
| Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 0.545 | 0.156 | 0.389 |
| Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 0.743 | 0.138 | 0.605 |
| Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic | 0.493 | 0.122 | 0.371 |
| Machinists | 0.521 | 0.161 | 0.360 |

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***A summary table of AI impact scores for ALL occupations within the Manufacturing industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Metal-Refining Furnace Operators and Tenders | 0.560 | 0.094 | 0.465 |
| Pourers and Casters, Metal | 0.558 | 0.089 | 0.469 |
| Model Makers, Metal and Plastic | 0.569 | 0.250 | 0.319 |
| Patternmakers, Metal and Plastic | 0.587 | 0.233 | 0.354 |
| Foundry Mold and Coremakers | 0.742 | 0.100 | 0.642 |
| Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic | 0.529 | 0.120 | 0.409 |
| Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 0.446 | 0.178 | 0.268 |
| Welders, Cutters, Solderers, and Brazers | 0.367 | 0.117 | 0.250 |
| Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders | 0.361 | 0.083 | 0.277 |
| Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic | 0.547 | 0.100 | 0.447 |
| Layout Workers, Metal and Plastic | 0.645 | 0.150 | 0.495 |
| Plating Machine Setters, Operators, and Tenders, Metal and Plastic | 0.526 | 0.214 | 0.312 |
| Tool Grinders, Filers, and Sharpeners | 0.561 | 0.094 | 0.467 |
| Prepress Technicians and Workers | 0.595 | 0.139 | 0.456 |
| Printing Press Operators | 0.662 | 0.068 | 0.594 |
| Print Binding and Finishing Workers | 0.535 | 0.094 | 0.440 |
| Sewing Machine Operators | 0.428 | 0.099 | 0.329 |
| Shoe and Leather Workers and Repairers | 0.597 | 0.107 | 0.490 |
| Shoe Machine Operators and Tenders | 0.574 | 0.144 | 0.429 |
| Sewers, Hand | 0.538 | 0.080 | 0.458 |
| Textile Bleaching and Dyeing Machine Operators and Tenders | 0.441 | 0.097 | 0.344 |
| Textile Cutting Machine Setters, Operators, and Tenders | 0.601 | 0.176 | 0.426 |
| Textile Knitting and Weaving Machine Setters, Operators, and Tenders | 0.561 | 0.128 | 0.434 |
| Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders | 0.421 | 0.111 | 0.310 |
| Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers | 0.607 | 0.126 | 0.482 |

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*A summary table of AI impact scores for ALL occupations within the Manufacturing industry (cont'd.)*

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Fabric and Apparel Patternmakers | 0.573 | 0.189 | 0.384 |
| Upholsterers | 0.435 | 0.091 | 0.344 |
| Cabinetmakers and Bench Carpenters | 0.495 | 0.117 | 0.378 |
| Furniture Finishers | 0.511 | 0.094 | 0.416 |
| Patternmakers, Wood | 0.500 | 0.133 | 0.366 |
| Sawing Machine Setters, Operators, and Tenders, Wood | 0.558 | 0.150 | 0.408 |
| Woodworking Machine Setters, Operators, and Tenders, Except Sawing | 0.534 | 0.144 | 0.389 |
| Chemical Plant and System Operators | 0.608 | 0.133 | 0.474 |
| Petroleum Pump System Operators, Refinery Operators, and Gaugers | 0.469 | 0.117 | 0.353 |
| Chemical Equipment Operators and Tenders | 0.485 | 0.167 | 0.319 |
| Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders | 0.500 | 0.130 | 0.370 |
| Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders | 0.399 | 0.128 | 0.271 |
| Grinding and Polishing Workers, Hand | 0.469 | 0.156 | 0.314 |
| Mixing and Blending Machine Setters, Operators, and Tenders | 0.455 | 0.128 | 0.327 |
| Cutters and Trimmers, Hand | 0.522 | 0.104 | 0.418 |
| Cutting and Slicing Machine Setters, Operators, and Tenders | 0.551 | 0.072 | 0.479 |
| Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders | 0.433 | 0.106 | 0.328 |
| Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders | 0.466 | 0.131 | 0.334 |
| Inspectors, Testers, Sorters, Samplers, and Weighers | 0.529 | 0.161 | 0.368 |
| Dental Laboratory Technicians | 0.492 | 0.133 | 0.359 |
| Medical Appliance Technicians | 0.591 | 0.189 | 0.402 |
| Ophthalmic Laboratory Technicians | 0.500 | 0.128 | 0.373 |
| Packaging and Filling Machine Operators and Tenders | 0.500 | 0.089 | 0.411 |
| Painting, Coating, and Decorating Workers | 0.581 | 0.133 | 0.448 |
| Coating, Painting, and Spraying Machine Setters, Operators, and Tenders | 0.574 | 0.111 | 0.463 |
| Semiconductor Processing Technicians | 0.639 | 0.127 | 0.512 |

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*A summary table of AI impact scores for ALL occupations within the Manufacturing industry (cont'd.)*

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Computer Numerically Controlled Tool Operators | 0.607 | 0.222 | 0.385 |
| Computer Numerically Controlled Tool Programmers | 0.520 | 0.211 | 0.309 |
| Adhesive Bonding Machine Operators and Tenders | 0.484 | 0.124 | 0.359 |
| Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders | 0.456 | 0.116 | 0.340 |
| Cooling and Freezing Equipment Operators and Tenders | 0.298 | 0.101 | 0.197 |
| Etchers and Engravers | 0.551 | 0.100 | 0.451 |
| Molders, Shapers, and Casters, Except Metal and Plastic | 0.600 | 0.172 | 0.428 |
| Paper Goods Machine Setters, Operators, and Tenders | 0.609 | 0.133 | 0.476 |
| Tire Builders | 0.481 | 0.128 | 0.354 |
| Helpers--Production Workers | 0.481 | 0.089 | 0.393 |
| Machine Feeders and Offbearers | 0.565 | 0.135 | 0.430 |
| Tool and Die Makers | 0.559 | 0.133 | 0.426 |

## 3b.14. Construction

***Top five occupations with the largest negative impact within the Construction industry***

Among the occupations in the Construction industry, here are the top five occupations **most impacted** by AI:

1. Cement Masons and Concrete Finishers
2. Helpers, Electricians
3. Dredge Operators
4. Reinforcing Iron and Rebar Workers
5. Construction Managers

Generally, AI is being used more and more to automate activities in construction replacing workers. The top five occupations within the Construction industry to feel the **most impact** due to AI are:

1. **Cement Masons and Concrete Finishers** – Impact Score 0.560: This occupation has the highest impact score because of the tasks that can be automated especially influenced by the following key skills: accounting software, analytical or scientific software, project management software.

   The technology skills for this occupation and their impact scores: (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Information retrieval or search software, 0.100).

2. **Helpers, Electricians** – Impact Score 0.541: This occupation has a high impact score because it is influenced by relatively few and automate-able skills: word processing software, spreadsheet software, database user interface and query software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Computer aided design

CAD software, 0.325).

3. **Dredge Operators** – Impact Score 0.539: This occupation has a high impact score because it is influenced by the few and highly vulnerable skills to AI: industrial control software, internet browser software, database user interface and query.

   The technology skills for this occupation and their impact scores: (Industrial control software, 0.450), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Mobile location based services software, 0.325).

4. **Reinforcing Iron and Rebar Workers** – Impact Score 0.537: This occupation has a high impact score because it is influenced by the following three key skills: Word processing software, Spreadsheet software, database user interface and query software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Computer aided design CAD software, 0.325), (Project management software, 0.300).

5. **Construction Managers** – Impact Score 0.528: This occupation has a high impact score because many aspects of construction have been automated as represented by these skills: document management software, time accounting software, process management and word processing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Human resources software, 0.275), (Web page creation and editing software, 0.225).

***Top five occupations with the least impact within the Construction industry***

Among the occupations in the Construction industry, here are the top five occupations **least impacted** by AI:

1. Helpers, Carpenters
2. Construction Laborers
3. Helpers--Installation, Maintenance, and Repair Workers
4. Terrazzo Workers and Finishers
5. Pipelayers

Impact score analysis of the top five **least-impacted** occupations within the Construction industry due to AI:

1. **Helpers, Carpenters** – Impact Score 0.272: This occupation has a low impact score because of the following least-impacted skills: accounting software, computer aided design CAD software, project management software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300).

2. **Construction Laborers** – Impact Score 0.227: This occupation has a low impact score because of the following least-impacted skills: electronic mail, computer aided design CAD software, project management software, and its depen-

dency on a limited number of technology skills.

The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Project management software, 0.300).

3. **Helpers, Installation, Maintenance, and Repair Workers** – Impact Score 0.212: This occupation has a low impact score because of the following least-impacted skills: computer aided design CAD software, facilities management software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325).

4. **Terrazzo Workers and Finishers** – Impact Score 0.203: This occupation has a low impact score because of the manual nature of the job requiring few skills: accounting software, analytical or scientific software, project management software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Operating system software, 0.425), (Spreadsheet software, 0.375), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300).

5. **Pipelayers** – Impact Score 0.123: This occupation has the least impact score because of its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350).

***A summary table of AI impact scores for ALL occupations within the Construction industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Construction Managers | 0.645 | 0.117 | 0.528 |
| Cost Estimators | 0.607 | 0.101 | 0.506 |
| First-Line Supervisors of Construction Trades and Extraction Workers | 0.595 | 0.128 | 0.467 |
| Boilermakers | 0.547 | 0.076 | 0.472 |
| Brickmasons and Blockmasons | 0.532 | 0.080 | 0.452 |
| Stonemasons | 0.621 | 0.117 | 0.505 |
| Carpenters | 0.521 | 0.094 | 0.426 |
| Carpet Installers | 0.554 | 0.144 | 0.409 |
| Floor Layers, Except Carpet, Wood, and Hard Tiles | 0.483 | 0.118 | 0.366 |
| Floor Sanders and Finishers | 0.582 | 0.172 | 0.410 |
| Tile and Stone Setters | 0.503 | 0.102 | 0.400 |
| Cement Masons and Concrete Finishers | 0.654 | 0.094 | 0.560 |
| Terrazzo Workers and Finishers | 0.419 | 0.217 | 0.203 |
| Construction Laborers | 0.418 | 0.191 | 0.227 |

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***A summary table of AI impact scores for ALL occupations within the Construction industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Paving, Surfacing, and Tamping Equipment Operators | 0.435 | 0.078 | 0.357 |
| Pile Driver Operators | 0.567 | 0.229 | 0.338 |
| Drywall and Ceiling Tile Installers | 0.558 | 0.113 | 0.445 |
| Electricians | 0.549 | 0.156 | 0.394 |
| Glaziers | 0.510 | 0.101 | 0.409 |
| Insulation Workers, Floor, Ceiling, and Wall | 0.520 | 0.150 | 0.370 |
| Insulation Workers, Mechanical | 0.622 | 0.128 | 0.494 |
| Painters, Construction and Maintenance | 0.528 | 0.106 | 0.423 |
| Pipelayers | 0.223 | 0.100 | 0.123 |
| Plumbers, Pipefitters, and Steamfitters | 0.471 | 0.096 | 0.375 |
| Plasterers and Stucco Masons | 0.481 | 0.100 | 0.381 |
| Reinforcing Iron and Rebar Workers | 0.640 | 0.103 | 0.537 |
| Roofers | 0.441 | 0.054 | 0.387 |
| Sheet Metal Workers | 0.515 | 0.122 | 0.393 |
| Structural Iron and Steel Workers | 0.541 | 0.161 | 0.380 |
| Solar Photovoltaic Installers | 0.577 | 0.214 | 0.363 |
| Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters | 0.434 | 0.113 | 0.321 |
| Helpers--Carpenters | 0.447 | 0.174 | 0.272 |
| Helpers--Electricians | 0.664 | 0.123 | 0.541 |
| Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons | 0.445 | 0.072 | 0.373 |
| Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters | 0.589 | 0.067 | 0.522 |
| Helpers--Roofers | 0.656 | 0.150 | 0.506 |
| Elevator and Escalator Installers and Repairers | 0.611 | 0.089 | 0.523 |
| Fence Erectors | 0.534 | 0.150 | 0.384 |
| Earth Drillers, Except Oil and Gas | 0.561 | 0.161 | 0.400 |
| Mechanical Door Repairers | 0.499 | 0.150 | 0.349 |
| Heating, Air Conditioning, and Refrigeration Mechanics and Installers | 0.523 | 0.130 | 0.393 |
| Millwrights | 0.570 | 0.156 | 0.414 |
| Riggers | 0.623 | 0.156 | 0.467 |
| Helpers--Installation, Maintenance, and Repair Workers | 0.473 | 0.261 | 0.212 |
| Crane and Tower Operators | 0.421 | 0.101 | 0.321 |
| Dredge Operators | 0.634 | 0.094 | 0.539 |

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*A summary table of AI impact scores for ALL occupations within the Construction industry (cont'd.)*

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Hoist and Winch Operators | 0.439 | 0.056 | 0.383 |
| Operating Engineers and Other Construction Equipment Operators | 0.445 | 0.116 | 0.330 |
| Tapers | 0.568 | 0.050 | 0.518 |

## 3b.15. Utilities

***Top five occupations with the largest negative impact within the Utilities industry***

Among the occupations in the Utilities industry, here are the top five occupations **most impacted** by AI:

1. Nuclear Power Reactor Operators
2. Control and Valve Installers and Repairers, Except Mechanical Door
3. Nuclear Engineers
4. Power Plant Operators
5. Power Distributors and Dispatchers

Impact score analysis of top-5 occupations within the Utilities industry:

1. **Nuclear Power Reactor Operators** – Impact Score 0.547: This occupation has the highest impact score because it is influenced by the following key skills: industrial software, calendar and scheduling software, project management software and spreadsheet software.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Project management software, 0.300), (Business intelligence and data analysis software, 0.175).

2. **Control and Valve Installers and Repairers, Except Mechanical Door** – Impact Score 0.545: This occupation has a high impact score because it is influenced by the following key skills: word processing software, industrial control software, process mapping and graphical user interface development software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Industrial control software, 0.450), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300).

3. **Nuclear Engineers** – Impact Score 0.481: This occupation has a high impact score because AI is able to replace key skills: CRM software, word processing software, CAD design, operating system software and analytical software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software,

0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275).

4. **Power Plant Operators** – Impact Score 0.453: This occupation has a high impact score because automation replaces people in the operational processes of the power plant.

   The technology skills for this occupation and their impact scores: (Industrial control software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300).

5. **Power Distributors and Dispatchers** – Impact Score 0.411: This occupation has a high impact score because it is influenced by the skills AI can automate: industrial control software, word processing software, database software and geographic software.

   The technology skills for this occupation and their impact scores: (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Geographic information system, 0.225).

***Top five occupations with the least impact within the Utilities industry***

Among the occupations in the Utilities industry, here are the top five occupations **least impacted** by AI:

1. Wind Turbine Service Technicians
2. Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
3. Gas Plant Operators
4. Nuclear Technicians
5. Electrical Power-Line Installers and Repairers

Impact score analysis of the top five **least-impacted** occupations within the Utilities industry due to AI:

1. **Wind Turbine Service Technicians** – Impact Score 0.389: This occupation has a low impact score because of the following least-impacted skills: presentation software, facilities management software, analytical or scientific software, project management software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300).

2. **Electrical and Electronics Repairers, Powerhouse, Substation, and Relay** – Impact Score 0.375: This occupation has a low impact score because of the following least-impacted skills: electronic mail software, CAD software, analytical or scientific software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet

software, 0.375), (Internet browser software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300).

3. **Gas Plant Operators** – Impact Score 0.373: This occupation has a low impact score because of the following skills AI can automate: electronic mail software, presentation software, enterprise resource planning ERP software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325).

4. **Nuclear Technicians** – Impact Score 0.326: This occupation has a low impact score because of the following critical nature of the occupation and the skills required are least-impacted by AI: clustering software, industrial control software, application server software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Clustering software, 0.300), (Application server software, 0.250).

5. **Electrical Power-Line Installers and Repairers** – Impact Score 0.295: This occupation has the least impact score because of the manual nature of the job which has the following least-impacted skills: mobile location based services software, inventory management software, geographic information system, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Computer aided design CAD software, 0.325), (Mobile location based services software, 0.325), (Inventory management software, 0.325), (Geographic information system, 0.225).

***A summary table of AI impact scores for ALL occupations within the Utilities industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Nuclear Engineers | 0.637 | 0.156 | 0.481 |
| Nuclear Technicians | 0.532 | 0.206 | 0.326 |
| Electrical and Electronics Repairers, Powerhouse, Substation, and Relay | 0.491 | 0.117 | 0.375 |
| Control and Valve Installers and Repairers, Except Mechanical Door | 0.661 | 0.117 | 0.545 |
| Electrical Power-Line Installers and Repairers | 0.440 | 0.144 | 0.295 |
| Wind Turbine Service Technicians | 0.561 | 0.172 | 0.389 |
| Nuclear Power Reactor Operators | 0.663 | 0.117 | 0.547 |
| Power Distributors and Dispatchers | 0.566 | 0.156 | 0.411 |
| Power Plant Operators | 0.549 | 0.096 | 0.453 |
| Gas Plant Operators | 0.456 | 0.083 | 0.373 |

## 3b.16. Management of Companies and Enterprises

All occupations except one are assigned to other industries based on occupation-industry relevance. Thus, there is only one occupation left in this industry. This occupation has a relatively minor impact due to AI.

***A summary table of AI impact scores for each occupation within the Management of Companies and Enterprises industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Compensation and Benefits Managers | 0.560 | 0.172 | 0.388 |

## 3b.17. Mining, Quarrying, and Oil and Gas Extraction

***Top five occupations with the largest negative impact within the Mining, Quarrying, and Oil and Gas Extraction industry***

Among the occupations in the Mining, Quarrying, and Oil and Gas Extraction industry, here are the top five occupations **most impacted** by AI:

1. Roof Bolters, Mining
2. Wellhead Pumpers
3. Service Unit Operators, Oil and Gas
4. Derrick Operators, Oil and Gas
5. Pump Operators, Except Wellhead Pumpers

Impact score analysis of top five occupations within the Mining, Quarrying, and Oil and Gas Extraction industry **most impacted** by AI:

1. **Roof Bolters, Mining** – Impact Score 0.650: This occupation has the highest impact score because AI/ robotics is replacing human workers. The skills are also highly impacted by AI.

   The technology skills for this occupation and their impact scores: (Industrial control software, 0.450), (Enterprise resource planning ERP software, 0.325).

2. **Wellhead Pumpers** – Impact Score 0.504: This occupation has a high impact score because AI/ robotics is replacing human workers. The skills are also highly impacted by AI: industrial control software, database software, ERP software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325).

3. **Service Unit Operators, Oil and Gas** – Impact Score 0.460: This occupation has a high impact score because it is influenced by the following key skills that AI are adept at: time accounting software, word processing software, industrial control software and cloud computing software.

   The technology skills for this occupation and their impact scores: (Time accounting software, 0.475), (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Facilities management software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300).

4. **Derrick Operators, Oil and Gas** – Impact Score 0.456: This occupation has a high impact score because of robotics, replacing human laborers.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350).

5. **Pump Operators, Except Wellhead Pumpers** – Impact Score 0.442: This occupation has a moderately high impact score because it is influenced by the following key skills: industrial control software, facilities management and database software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Facilities management software, 0.325).

***Top five occupations with the least impact within the industry***

Among the occupations in the Mining, Quarrying, and Oil and Gas Extraction industry, here are the top five occupations **least impacted** by AI:

1. Loading and Moving Machine Operators, Underground Mining
2. Roustabouts, Oil and Gas
3. Rotary Drill Operators, Oil and Gas
4. Continuous Mining Machine Operators
5. Rock Splitters, Quarry

Impact score analysis of the top five **least-impacted** occupations within the Mining, Quarrying, and Oil and Gas Extraction industry.

1. **Loading and Moving Machine Operators, Underground Mining** – Impact Score 0.370: This occupation has a low impact score because of the following least-impacted skills: inventory management software, facilities management software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Time accounting software, 0.475), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Facilities management software, 0.325).

2. **Roustabouts, Oil and Gas** – Impact Score 0.342: This occupation has a low impact score because of the following least-impacted skills: project management software, database management system software, Internet protocol IP multimedia subsystem software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Procurement software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Switch or router software, 0.325), (Project management software, 0.300), (database management system software, 0.275), (Internet protocol IP multimedia subsystem software, 0.250).

3. **Rotary Drill Operators, Oil and Gas** – Impact Score 0.338: This occupation has a low impact score because of the following least-impacted skills: enterprise resource planning ERP software, analytical or scientific software, object or component oriented development software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275).

4. **Continuous Mining Machine Operators** – Impact Score 0.287: This occupation has a low impact score because of the manual nature of the job and the following least-impacted skills: mobile location based services software, analytical or scientific software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation software,

0.325), (Mobile location based services software, 0.325), (Analytical or scientific software, 0.300).

5. **Rock Splitters, Quarry** – Impact Score 0.251: This occupation has the least impact score because of the manual nature of the occupation and the following least-impacted skills: analytical or scientific software, application server software, web editing software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Time accounting software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Application server software, 0.250), (Web page creation and editing software, 0.225).

***A summary table of AI impact scores for ALL occupations within the Mining, Quarrying, and Oil and Gas Extraction industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Petroleum Engineers | 0.532 | 0.144 | 0.388 |
| Derrick Operators, Oil and Gas | 0.633 | 0.178 | 0.456 |
| Rotary Drill Operators, Oil and Gas | 0.532 | 0.194 | 0.338 |
| Service Unit Operators, Oil and Gas | 0.604 | 0.144 | 0.460 |
| Excavating and Loading Machine and Dragline Operators, Surface Mining | 0.507 | 0.131 | 0.376 |
| Continuous Mining Machine Operators | 0.526 | 0.239 | 0.287 |
| Roof Bolters, Mining | 0.778 | 0.128 | 0.650 |
| Loading and Moving Machine Operators, Underground Mining | 0.542 | 0.172 | 0.370 |
| Rock Splitters, Quarry | 0.400 | 0.149 | 0.251 |
| Roustabouts, Oil and Gas | 0.559 | 0.217 | 0.342 |
| Helpers--Extraction Workers | 0.584 | 0.194 | 0.389 |
| Pump Operators, Except Wellhead Pumpers | 0.525 | 0.083 | 0.442 |
| Wellhead Pumpers | 0.595 | 0.091 | 0.504 |

## 3b.18. Government

***Top five occupations with the largest negative impact within the Government industry***

Among the occupations in the Government industry, here are the top five occupations **most impacted** by AI:

1. Bailiffs
2. Library Technicians
3. Urban and Regional Planners
4. Probation Officers and Correctional Treatment Specialists
5. Water and Wastewater Treatment Plant and System Operators

Impact score analysis of top five occupations within the Government industry **most impacted** by AI:

1. **Bailiffs** – Impact Score 0.584: This occupation has the highest impact score because it is influenced by the following key skills: cloud computing, analytical software, document management software, calendar and scheduling software, word processing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Analytical or scientific software, 0.300).

2. **Library Technicians** – Impact Score 0.557: This occupation has a high impact score because it is influenced by the following key skills well suited to AI: database software, document management software, word processing software, operating system software and graphics software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Library software, 0.325), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225)

3. **Urban and Regional Planners** – Impact Score 0.549: This occupation has a high impact score because AI's capability is critical skills: compliance software, document management software, graphics software, geographic software, time accounting software, Word processing software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Data mining software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Geographic information system, 0.225).

4. **Probation Officers and Correctional Treatment Specialists** – Impact Score 0.537: This occupation has a high impact score because AI can replace human worker especially in these key skills: project management, scheduling software, voice recognition software, word processing software and CRM software.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Word processing software,

0.450), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Project management software, 0.300), (Web page creation and editing software, 0.225).

5. **Water and Wastewater Treatment Plant and System Operators** – Impact Score 0.535: This occupation has a high impact score because it is influenced by the following key skills: time accounting software, industrial control software, word processing software and financial software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Geographic information system, 0.225).

***Top five occupations with the least impact within the Government industry***

Among the occupations in the Government industry, here are the top five occupations **least impacted** by AI:

1. Transit and Railroad Police
2. Correctional Officers and Jailers
3. Bus Drivers, Transit and Intercity
4. Subway and Streetcar Operators
5. Mathematicians

Impact score analysis of the top five **least-impacted** occupation within the Government industry due to AI:

1. **Transit and Railroad Police** – Impact Score 0.285: This occupation has a low impact score because of the following least-impacted skills: photo imaging software, map software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325)

2. **Correctional Officers and Jailers** – Impact Score 0.267: This occupation has a low impact score because of AI's ability to replace workers, especially with these critical skills: records management, presentation software, database management system software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (database management system software, 0.275), (Web page creation and editing software, 0.225)

3. **Bus Drivers, Transit and Intercity** – Impact Score 0.250: This occupation has a low impact score because of its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Operating system software, 0.425), (Internet browser software, 0.375), (Map creation software, 0.375)

4. **Subway and Streetcar Operators** – Impact Score 0.232: This occupation has a low impact score because of its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Office suite software, 0.350)

5. **Mathematicians** – Impact Score 0.227: This occupation has the least impact score because of the multi-dimensional aspect of this occupation requiring depth of expertise in any skills

including the following least-impacted skills: enterprise application integration software, program testing software, business intelligence and data analysis software, and its dependency on a limited number of technology skills.

The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Program testing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Business intelligence and data analysis software, 0.175)

***A summary table of AI impact scores for ALL occupations within the Government industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Legislators | 0.563 | 0.088 | 0.475 |
| Administrative Services Managers | 0.560 | 0.111 | 0.449 |
| Gambling Managers | 0.480 | 0.093 | 0.387 |
| Postmasters and Mail Superintendents | 0.470 | 0.156 | 0.314 |
| Emergency Management Directors | 0.661 | 0.239 | 0.423 |
| Compliance Officers | 0.600 | 0.100 | 0.500 |
| Budget Analysts | 0.580 | 0.078 | 0.502 |
| Tax Examiners and Collectors, and Revenue Agents | 0.656 | 0.150 | 0.506 |
| Mathematicians | 0.527 | 0.300 | 0.227 |
| Cartographers and Photogrammetrists | 0.709 | 0.189 | 0.520 |
| Agricultural Engineers | 0.617 | 0.122 | 0.495 |
| Zoologists and Wildlife Biologists | 0.542 | 0.144 | 0.398 |
| Conservation Scientists | 0.548 | 0.144 | 0.404 |
| Foresters | 0.591 | 0.144 | 0.447 |
| Epidemiologists | 0.668 | 0.239 | 0.429 |
| Environmental Scientists and Specialists, Including Health | 0.566 | 0.250 | 0.316 |
| Hydrologists | 0.495 | 0.156 | 0.340 |
| Economists | 0.511 | 0.144 | 0.367 |
| Geographers | 0.551 | 0.177 | 0.375 |
| Historians | 0.496 | 0.139 | 0.357 |
| Political Scientists | 0.539 | 0.139 | 0.400 |
| Hydrologic Technicians | 0.476 | 0.133 | 0.343 |
| Forest and Conservation Technicians | 0.594 | 0.239 | 0.355 |
| Forensic Science Technicians | 0.584 | 0.106 | 0.478 |

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***A summary table of AI impact scores for ALL occupations within the Government industry (cont'd.)***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Occupational Health and Safety Specialists | 0.624 | 0.133 | 0.491 |
| Child, Family, and School Social Workers | 0.611 | 0.178 | 0.433 |
| Probation Officers and Correctional Treatment Specialists | 0.654 | 0.117 | 0.537 |
| Judicial Law Clerks | 0.609 | 0.133 | 0.476 |
| Administrative Law Judges, Adjudicators, and Hearing Officers | 0.485 | 0.194 | 0.290 |
| Judges, Magistrate Judges, and Magistrates | 0.432 | 0.063 | 0.369 |
| Library Technicians | 0.673 | 0.117 | 0.557 |
| Court Reporters and Simultaneous Captioners | 0.575 | 0.117 | 0.459 |
| First-Line Supervisors of Correctional Officers | 0.521 | 0.094 | 0.426 |
| First-Line Supervisors of Police and Detectives | 0.589 | 0.057 | 0.533 |
| First-Line Supervisors of Firefighting and Prevention Workers | 0.559 | 0.094 | 0.465 |
| Firefighters | 0.549 | 0.090 | 0.459 |
| Fire Inspectors and Investigators | 0.532 | 0.104 | 0.427 |
| Forest Fire Inspectors and Prevention Specialists | 0.552 | 0.133 | 0.418 |
| Bailiffs | 0.663 | 0.079 | 0.584 |
| Correctional Officers and Jailers | 0.328 | 0.061 | 0.267 |
| Detectives and Criminal Investigators | 0.431 | 0.100 | 0.331 |
| Fish and Game Wardens | 0.515 | 0.117 | 0.399 |
| Parking Enforcement Workers | 0.622 | 0.128 | 0.494 |
| Police and Sheriff's Patrol Officers | 0.546 | 0.094 | 0.452 |
| Transit and Railroad Police | 0.513 | 0.228 | 0.285 |
| Animal Control Workers | 0.552 | 0.094 | 0.458 |
| Gambling Surveillance Officers and Gambling Investigators | 0.528 | 0.131 | 0.397 |
| Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers | 0.500 | 0.102 | 0.398 |
| Transportation Security Screeners | 0.482 | 0.122 | 0.360 |
| Recreation Workers | 0.652 | 0.139 | 0.513 |
| Gambling Change Persons and Booth Cashiers | 0.403 | 0.117 | 0.286 |
| Gambling Cage Workers | 0.452 | 0.144 | 0.307 |
| Procurement Clerks | 0.594 | 0.111 | 0.483 |
| Court, Municipal, and License Clerks | 0.670 | 0.161 | 0.509 |
| Eligibility Interviewers, Government Programs | 0.539 | 0.228 | 0.311 |
| Library Assistants, Clerical | 0.602 | 0.114 | 0.488 |
| Human Resources Assistants, Except Payroll and Timekeeping | 0.571 | 0.231 | 0.341 |
| Public Safety Telecommunicators | 0.579 | 0.117 | 0.462 |

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*A summary table of AI impact scores for ALL occupations within the Government industry (cont'd.)*

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Meter Readers, Utilities | 0.579 | 0.151 | 0.428 |
| Postal Service Clerks | 0.459 | 0.057 | 0.402 |
| Postal Service Mail Carriers | 0.468 | 0.043 | 0.425 |
| Postal Service Mail Sorters, Processors, and Processing Machine Operators | 0.552 | 0.136 | 0.416 |
| Word Processors and Typists | 0.602 | 0.129 | 0.473 |
| Agricultural Inspectors | 0.448 | 0.071 | 0.377 |
| Forest and Conservation Workers | 0.609 | 0.161 | 0.448 |
| Construction and Building Inspectors | 0.598 | 0.100 | 0.498 |
| Highway Maintenance Workers | 0.510 | 0.089 | 0.421 |
| Explosives Workers, Ordnance Handling Experts, and Blasters | 0.585 | 0.101 | 0.483 |
| Stationary Engineers and Boiler Operators | 0.481 | 0.161 | 0.320 |
| Water and Wastewater Treatment Plant and System Operators | 0.641 | 0.106 | 0.535 |
| Air Traffic Controllers | 0.538 | 0.139 | 0.399 |
| Bus Drivers, Transit and Intercity | 0.367 | 0.117 | 0.250 |
| Subway and Streetcar Operators | 0.371 | 0.139 | 0.232 |
| Bridge and Lock Tenders | 0.602 | 0.150 | 0.452 |
| Traffic Technicians | 0.625 | 0.114 | 0.511 |
| Transportation Inspectors | 0.494 | 0.178 | 0.317 |
| Urban and Regional Planners | 0.630 | 0.081 | 0.549 |

## 3b.19. Agriculture, Forestry, Fishing, and Hunting

***Top five occupations with the largest negative impact within the Agriculture, Forestry, Fishing, and Hunting industry***

Among the occupations in the Agriculture, Forestry, Fishing, and Hunting industry, here are the top five occupations **most impacted** by AI:

1. Agricultural Equipment Operators
2. Farmers, Ranchers, and Other Agricultural Managers
3. Farm Labor Contractors
4. Farmworkers, Farm, Ranch, and Aquacultural Animals
5. First-Line Supervisors of Farming, Fishing, and Forestry Workers

Impact score analysis of top five occupations within the Agriculture, Forestry, Fishing, and Hunting industry **most impacted** by AI:

1. **Agricultural Equipment Operators** – Impact Score 0.539: This occupation has the highest impact score because it is influenced by automation and the following key skills: spreadsheet software, map creation software, database user interface and query software.

   The technology skills for this occupation and their impact scores: (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325).

2. **Farmers, Ranchers, and Other Agricultural Managers** – Impact Score 0.495: This occupation has a high impact score because it is influenced by the following key operational skills: time accounting software, Industrial control software, database software, ERP software, and mobile location software.

   The technology skills for this occupation and their impact scores: (Time accounting software, 0.475), (Industrial control software, 0.450), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Mobile location based services software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225), (Geographic information system, 0.225).

3. **Farm Labor Contractors** – Impact Score 0.448: This occupation has a high impact score because it is influenced by the following key skills: ERP software, word processing software, accounting software, spreadsheet software, Internet browser software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Web page creation and editing software, 0.225).

4. **Farmworkers, Farm, Ranch, and Aquacultural Animals** – Impact Score 0.440: This occupation has a relatively moderate high impact score because it is influenced by the following operational skills: database software, productivity software, and general internet browser software.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350).

5. **First-Line Supervisors of Farming, Fishing, and Forestry Workers** – Impact Score 0.364: This occupation has a moderate impact score because it is influenced by skills AI can operate:

expert system software, map creation software, time accounting software, calendar and scheduling software, word processing software.

The technology skills for this occupation and their impact scores: (Time accounting software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Expert system software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Project management software, 0.300).

***Top five occupations with the least impact within the Agriculture, Forestry, Fishing, and Hunting industry***

Among the occupations in the Agriculture, Forestry, Fishing, and Hunting industry, here are the top five occupations **least impacted** by AI:

1. Logging Equipment Operators
2. Animal Trainers
3. Animal Breeders
4. Fallers
5. Graders and Sorters, Agricultural Products

In general, these occupations require physical or manual labor. Impact score analysis of the top five **least-impacted** occupations within the Agriculture, Forestry, Fishing, and Hunting industry.

1. **Logging Equipment Operators** – Impact Score 0.349: This occupation has a moderately low impact score because of robotics and the following least-impacted skills: Enterprise resource planning ERP software, inventory management software, human resources software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Human resources software, 0.275).

2. **Animal Trainers** – Impact Score 0.348: This occupation has a moderately low impact score because of the physical labor combined with the following least-impacted skills: project management software, transaction server software, web page creation and editing software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Project management software, 0.300), (Transaction server software, 0.300), (Web page creation and editing software, 0.225).

3. **Animal Breeders** – Impact Score 0.342: This occupation has a low impact score because of the following least-impacted skills: computer based training software, analytical or scientific software, desktop publishing software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275).

4. **Fallers** – Impact Score 0.317: This occupation has a low impact score because of the following least-impacted skills: accounting software, analytical or scientific software, geographic information system, and its dependency

on a limited number of technology skills.

The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Geographic information system, 0.225).

5. **Graders and Sorters, Agricultural Products** – Impact Score 0.249: This occupation has the least impact score because of the following least-impacted skills: electronic mail software, presentation software, web platform development software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325).

***A summary table of AI impact scores for ALL occupations within the Agriculture, Forestry, Fishing, and Hunting industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Farmers, Ranchers, and Other Agricultural Managers | 0.650 | 0.156 | 0.495 |
| Farm Labor Contractors | 0.548 | 0.100 | 0.448 |
| Animal Trainers | 0.503 | 0.156 | 0.348 |
| First-Line Supervisors of Farming, Fishing, and Forestry Workers | 0.503 | 0.139 | 0.364 |
| Animal Breeders | 0.503 | 0.161 | 0.342 |
| Graders and Sorters, Agricultural Products | 0.454 | 0.204 | 0.249 |
| Agricultural Equipment Operators | 0.634 | 0.094 | 0.539 |
| Farmworkers and Laborers, Crop, Nursery, and Greenhouse | 0.549 | 0.194 | 0.354 |
| Farmworkers, Farm, Ranch, and Aquacultural Animals | 0.557 | 0.117 | 0.440 |
| Fallers | 0.401 | 0.083 | 0.317 |
| Logging Equipment Operators | 0.460 | 0.111 | 0.349 |

## 3b.20. Administrative and Support Services

***Top five occupations with the largest negative impact within the Administrative and Support Services industry***

Among the occupations in the Administrative and Support Services industry, here are the top five occupations **most impacted** by AI:

1. Bill and Account Collectors
2. Commercial Divers
3. Office Machine Operators, Except Computer
4. Pesticide Handlers, Sprayers, and Applicators, Vegetation
5. Security Guards

Impact score analysis of top five occupations within the Administrative and Support Services industry **most impacted** by AI:

1. **Bill and Account Collectors** – Impact Score 0.613: This occupation has the highest impact score because it is influenced by the following key skills: CRM software, document management software, time accounting software, financial software, word processing software and information retrieval software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Categorization or classification software, 0.325), (Point of sale POS software, 0.300), (Access software, 0.275), (Information retrieval or search software, 0.100).

2. **Commercial Divers** – Impact Score 0.543: This occupation has a high impact score because AI can replace key activities and skills: database software, user interface and query software, and analytical or scientific software.

   The technology skills for this occupation and their impact scores: (Internet browser software, 0.375), (database user interface and query software, 0.375), (Analytical or scientific software, 0.300).

3. **Office Machine Operators, Except Computer** – Impact Score 0.540: This occupation has a high impact score because it is influenced by the following key skills: optical readers, document management software, desktop communications, word processing software and operating system software.

   The technology skills for this occupation and their impact scores: (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Desktop publishing software, 0.275), (Desktop communications software, 0.250).

4. Pesticide Handlers, Sprayers, and Applicators, Vegetation – Impact Score 0.485: This occupation has a high impact score because it is influenced by AI automation and the following key skills: financial software, inventory management, geographic software, database user interface and query software, Office suite software.

   The technology skills for this occupation and their impact scores: (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225), (Geographic information system, 0.225).

5. Security Guards – Impact Score 0.483: This occupation has a moderate impact score because it is influenced by the following key skills: transaction security and virus protection software, word processing software, spreadsheet software, and network monitoring software.

   The technology skills for this occupation and their impact scores: (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Network monitoring software, 0.325).

***Top five occupations with the least impact within the Administrative and Support Services industry***

Among the occupations in the Administrative and Support Services industry, here are the top five occupations **least impacted** by AI:

1. Septic Tank Servicers and Sewer Pipe Cleaners
2. Locksmiths and Safe Repairers
3. Hazardous Materials Removal Workers
4. Janitors and Cleaners, Except Maids and Housekeeping Cleaners
5. Tree Trimmers and Pruners

Impact score analysis of the top five **least-impacted** occupation within the Administrative and Support Services industry due to AI:

1. Septic Tank Servicers and Sewer Pipe Cleaners – Impact Score 0.313: This occupation has a low impact score because of the following least-impacted skills: internet browser software, accounting software, route navigation software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Accounting software, 0.325), (Route navigation software, 0.325)

2. Locksmiths and Safe Repairers – Impact Score 0.291: This occupation has a low impact score because of the following least-impacted skills: accounting software, inventory management software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325).

3. Hazardous Materials Removal Workers – Impact Score 0.265: This occupation has a low impact score because of the following least-impacted skills: facilities management software, inventory management software, enterprise application integration software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Facilities management software, 0.325), (Inventory management software, 0.325), (Enterprise application integration software, 0.275).

4. Janitors and Cleaners, Except Maids and Housekeeping Cleaners – Impact Score 0.222: This occupation has a low impact score because of the following least-impacted skills: electronic mail software, cloud-based data access and sharing software, Desktop communications software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Desktop communications

software, 0.250).

5. Tree Trimmers and Pruners – Impact Score 0.196: This occupation has the lowest impact score because of the following least-impacted skills: spreadsheet software, electronic mail software, web page creation and editing software, and its dependency on a limited number of technology skills.

   The technology skills for this occupation and their impact scores: (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Web page creation and editing software, 0.225).

***A summary table of AI impact scores for ALL occupations within the Administrative and Support Services industry***

| Job Title | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Human Resources Specialists | 0.599 | 0.133 | 0.466 |
| First-Line Supervisors of Security Workers | 0.621 | 0.206 | 0.416 |
| Private Detectives and Investigators | 0.612 | 0.167 | 0.445 |
| Security Guards | 0.577 | 0.093 | 0.483 |
| Crossing Guards and Flaggers | 0.413 | 0.034 | 0.378 |
| First-Line Supervisors of Housekeeping and Janitorial Workers | 0.550 | 0.106 | 0.444 |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | 0.613 | 0.136 | 0.477 |
| Janitors and Cleaners, Except Maids and Housekeeping Cleaners | 0.330 | 0.108 | 0.222 |
| Pest Control Workers | 0.587 | 0.106 | 0.481 |
| Landscaping and Groundskeeping Workers | 0.368 | 0.050 | 0.318 |
| Pesticide Handlers, Sprayers, and Applicators, Vegetation | 0.608 | 0.122 | 0.485 |
| Tree Trimmers and Pruners | 0.374 | 0.178 | 0.196 |
| Travel Agents | 0.530 | 0.061 | 0.469 |
| Telemarketers | 0.473 | 0.089 | 0.384 |
| Bill and Account Collectors | 0.670 | 0.057 | 0.613 |
| Data Entry Keyers | 0.514 | 0.178 | 0.336 |
| Mail Clerks and Mail Machine Operators, Except Postal Service | 0.524 | 0.150 | 0.374 |
| Office Machine Operators, Except Computer | 0.684 | 0.144 | 0.540 |
| Hazardous Materials Removal Workers | 0.460 | 0.194 | 0.265 |
| Septic Tank Servicers and Sewer Pipe Cleaners | 0.426 | 0.113 | 0.313 |
| Security and Fire Alarm Systems Installers | 0.442 | 0.111 | 0.331 |
| Commercial Divers | 0.637 | 0.094 | 0.543 |
| Locksmiths and Safe Repairers | 0.463 | 0.172 | 0.291 |
| Refuse and Recyclable Material Collectors | 0.545 | 0.128 | 0.417 |

# 4. RECOMMENDATIONS

## 4a. Introduction

## 4b. Policy and Program Recommendations

### 1/ Education and Reskilling

### 2/ Worker Safety Nets

### 3/ Labor Market Policies

### 4/ Universal Basic Income (UBI)

### 5/ Tax Incentives



# 4. RECOMMENDATIONS

## 4a. Introduction

History shows that technological advancements often lead to job displacement. The digital revolution of the 1990s is a prime example, where initial disruptions gave way to overall job displacements. It was during this time of digital transformation that, for instance, live telephone operators gave way to automated systems or telephone installers were replaced by central systems that could activate telephones remotely and digitally.

The pace and scale of AI's potential impact on jobs is still a hotly debated question but many experts believe the impact of AI on workers is likely to be more dramatic than the digital revolution. In fact, current data suggests that workers may face more rapid and severe job displacement compared to technological shifts of the past, such as was witnessed during the telecommunications/ Internet revolution 30 years ago and the digital transformation of the past 20 years.

> While the AI revolution may share similarities with other technological revolutions of the past, its scope is more complex, expansive, and disruptive to the current workforce than anything that's come before.

Amidst this tumult, the impact on workers will vary greatly across different regions, job types, and skill levels. Some workers will benefit greatly from the new opportunities, while others will face challenges adapting to the changing landscape.

### *Impact of AI on Job Creation and Job Disruption*

Similar to past technological revolutions, the widespread adoption of AI will likely create a prolonged period of significant workforce adjustment. Over the next two or three decades, we can expect to see **both** job creation and worker displacement as industries and occupations adapt to this new technological landscape.

### *Potential for New Jobs Due to AI Adoption*

- **New Industries:** The emergence of AI networks, AI applications and AI service providers will create entirely new industries, leading to a surge in job creation for engineers, technicians, sales representatives, and customer service personnel.
- **Technological Advancements:** The rapid pace of technological innovation requires a constant influx of skilled workers to develop, manufacture, and maintain new equipment and infrastructure that runs on AI.
- **Increased Demand for Services:** As AI services become more accessible and affordable, demand for related services like AI centric content creation, e-commerce, and online support will grow significantly, generating additional jobs.

### *Potential for Job Displacement due to AI Adoption*

- **Technological Substitution:** Automation and digitalization will replace some traditional jobs, such as manual or repetitive tasks. In addition, AI will increasingly replace white collar workers in accounting, financial and legal professions.
- **Industry Consolidation:** As AI continues to pervade every industry and occupation, mergers and acquisitions are likely to accelerate leading to job cuts in some areas as companies streamlined operations.
- **Shifting Skill Requirements:** The rapid pace of technological change will require workers to constantly upgrade their skills, and those who can't adapt will face the risk of displacement.

The key policy question is how to maximize the benefits of AI-driven innovation, such as job creation, while minimizing the negative consequences, like job displacement.

It is reasonable to expect that AI will follow a similar pattern to other periods of great technological change in that there will be decades of tremendous disruption affecting workers as the technology matures. New jobs will be created even as older jobs are eliminated.

### *The Broad Consensus*

Given the immense scale of AI's transformative effects, the full impact on workers is still uncertain. Historical models offer some insight into how new technologies impact workforces, but these models might not adequately prepare us for the full/actual job displacement associated with AI.

However, looking through old and current data, there are some clear conclusions that can be made about AI's impact on workers.

1. **The spread of automation will affect various jobs differently** Some occupations will feel the impact sooner and more intensely than others. Current trends suggest that AI will disproportionately impact moderately skilled jobs that many low-income workers depend on. Resulting growing pains for the overall U.S. economy could be severe.
2. **Worker displacement and redeployment will be inconsistent** Ideally, automation can be combatted by the redeployment of workers into better and more interesting work, so long as they can get the appropriate technical training. However, reskilling workers is not a one-size-fits-all solution. Many displaced workers will require a different approach.
3. **An entire class of service jobs may now be at risk due to automation** Jobs in the service sector are varied, including health care, food service, social services, and education. These occupations were once regarded as "safe jobs", but are now vulnerable to AI displacement at varying degrees. The large impact of AI on the services segment may come as a surprise to many businesses, but is due to the exponential growth of quality AI learning models.
4. **Economic inequality could worsen** The transition to an AI-driven economy may exacerbate existing income inequality as AI automates tasks that require routine cognitive skills, leading to job losses in middle-skill occupations. Workers displaced by AI often find themselves competing with other low-skilled workers who have also been displaced. Unfortunately, those with the resources for retraining or relocation are better positioned to find new employment opportunities, leaving lower-income workers at a disadvantage. Policymakers and businesses need to address this potential challenge to ensure a just and equitable transition.

### *The Fall-Out*

In the short-term, the economic impact of job losses due to AI will either show up rapidly or gradually – depending on the industry and the occupation. Some labor analysts such as Lydia Boussour, lead U.S. economist at Oxford Economics, calculate that 40% of jobs are vulnerable to automation.

The question therefore is: as these dynamics play out with AI, are policy-makers and local communities prepared to accommodate a retooled model of workforce adjustment?

AI is bound to change the employment landscape, both to workers' benefit and their detriment. It is therefore crucial to establish comprehensive approaches to help mitigate negative impacts on vulnerable workers and their communities. There is an imminent need for collaborative development of practical tools that can help create a soft landing for workers and the communities impacted by AI.

## 4b. Policy and Program Recommendations

### *Recommendations Must Be Commensurate with the Rapid Rate of AI Adoption*

This proposed set of recommendations are designed to present an initial architecture for a policy and legislative response to worker AI displacement. This section is meant to be a source of ideas for

potential responses that can help legislators, policy makers, trade organizations, workers and general populations adjust in the fast-changing world of AI. The goal of these recommendations is ultimately to provide ideas for a robust social safety net and worker protections while adjusting to AI implementation through a range of potential policy mechanisms.

While the impact of AI has mostly been speculative, this study provided the detailed data needed to demonstrate the urgency of developing support systems for workers and their families who may lose their jobs now or in the near future because of AI.

Since AI is likely to permeate every aspect of society, comprehensive strategies must be developed to address the scope of its impacts. The following recommendations were developed to help mitigate the multi-dimensional impacts of AI on our workforce that are sure to come. Thus, these initial proposals cover a wide range of potential categories:

1. **Education and Reskilling**
2. **Worker Safety Nets**
3. **Labor Market Policies**
4. **Universal Basic Income**
5. **Tax Incentives**

The following sections were developed with the intention of starting conversations about the actions that different communities and their representatives can take to mitigate the negative effects of AI implementation within their localities.

It is clear that the full impact of AI on workers, lawmakers, and communities is yet to be realized. To effectively address the challenges that will inevitably arise, it is crucial to proactively initiate these discussions and develop support systems.

## 1/ Education and Reskilling:

When discussing the impact of AI on the workforce, a common response is to emphasize the need for worker retraining. While retraining is indeed crucial, a more nuanced approach is required. We must delve deeper into specific education and reskilling strategies to equip workers for the evolving job market especially given the many underlying dimensions. Can all workers really be retrained? How should the education system be tapped to prepare workers for a workplace dominated by AI? What government programs are worthy of public investment?

This set of recommendations addresses two different areas:

**1a. K-12 through College Education – Preparing for the Future**

**1b. Retraining and Reskilling Workers – a Successful Strategy**

### *1a. K-12 through College Education – Preparing for the Future*

This section explores the critical need to reshape education from early childhood (K-12) through adult learning to equip those entering the workforce with the skills necessary to thrive in an AI-driven economy. By examining the entire educational pipeline, we can identify strategies to support both current and future workforces.

It is critical to ensure students completing their education are prepared to enter a technology-focused economy. Strategic planning within K-12 education systems should be funded to develop comprehensive plans that include the input of teachers, students, instructional leaders, equity and justice professionals. This collaborative approach ensures that students are well versed in AI and diverse technology applications.

Therefore, the most important starting point is the development of technology and STEM-focused topics into teacher training curriculum. This includes ensuring teachers are well-versed in how to integrate AI tools into their curriculum.

By retooling the skills of teachers so that they themselves use technology more and are able to teach students about the appropriate use of technology,

are vital to transform K-12 educational systems.

This reorientation results in two main benefits – first, teachers will pass on higher degrees of technological proficiency to their students, and second, teachers themselves will use technology more capably and efficiently within their jobs.

**Technology for Educators**

To transform K-12 education into a system that supports future generations, we need to take a macro approach to the planning and implementation of the educational framework.

- **Transforming Learning Culture:** Invest in classroom instructional models that advances student-centered pedagogy. These models will help students strengthen their relationship with peers, teachers, and technology.
- **Administrative Tasks:** To free up teachers' time, new tools can be applied to handle administrative tasks like grading multiple-choice questions. This allows teachers to focus on more complex aspects of instruction like lesson planning, project-based learning, and individualized student interaction.
- **Data Analysis:** Teachers can use AI to analyze student data to gain insights into class performance and identify areas where instruction might need to be adjusted. This data can ultimately help teachers tailor their approach to better meet the needs of their students.
- **Strategic Planning:** Provide funding for districts and schools to develop strategic plans on how to implement AI. Technology implementation often fails in education because of the lack of buy-in from these key stakeholders.
- **Professional Development:** Provide funding for technology and STEM-focused organizations to train teachers how to integrate AI tools into their curriculum development and classroom practice. Investing in technology and STEM-focused specialized training for teachers will empower them to navigate and utilize AI tools. This training will enhance teaching practices and help educators better prepare students for the future.

**Technology for Educators to Use in Classroom**

Educators need to embrace the use of technology in student instruction. This includes a wide and evolving set of technologies, capabilities and processes.

- **Personalized Learning:** With enhanced skills, educators and teachers can apply technology within the classroom environment to ensure better student outcomes. Additionally, teachers can help students understand how to apply AI themselves in appropriate and effective ways.
    - **AI-Powered Tutors:** Adaptive learning platforms can personalize learning experiences by identifying student strengths and weaknesses, and tailoring instruction accordingly. AI tutors can provide targeted support and feedback, filling in knowledge gaps and accelerating progress.
    - **Curriculum Customization:** AI can analyze student data to recommend learning materials, content difficulty levels, and pacing adjustments based on individual needs. This allows educators to move away from "one-size-fits-all" approaches.
    - **Identifying Learning Gaps:** AI can pinpoint specific areas where students are struggling, allowing teachers to provide targeted assistance.
    - **Tailored Instruction:** By analyzing student performance data, AI can recommend individualized learning paths, ensuring that each student receives instruction aligned with their needs.
    - **Adaptive Assessments:** AI can create and adapt assessments based on a student's real-time performance, providing continuous feedback and adjusting the difficulty level accordingly.
- **Predictive Analytics for Early Intervention:** AI can identify students at risk of falling behind before their grades decline significantly, enabling support when it will be most impactful. By predicting student needs, schools can optimize resource allocation, such as staffing or technology.
- **Enhanced Engagement and Assessment:** This is a holistic approach to teaching that prioritizes both student learning and the educator's ability to measure and improve their instruction. Students can benefit heavily from AI implementation, both passively via assessments in which they have no direct role, and actively in situations where they are using it as a part of their immediate learning experience. These

applications can take different forms, such as:

- **Interactive Tools:** AI-powered games, simulations, and virtual reality experiences can make learning more engaging and interactive. These tools foster deeper understanding and cater to different learning styles.
- **Automated Assessment:** AI can automate some aspects of assessment, freeing up teachers' time for more individualized feedback and instruction. AI-powered tools can analyze student performance data to identify areas for improvement and provide targeted support.
- **Formative Assessment:** Using ongoing assessment to monitor student progress and adjust instruction in real-time.
- **Summative Assessment:** Employing a variety of assessment methods (projects, portfolios, presentations) to measure student achievement and growth.
- **Student Self-Assessment:** Encouraging students to reflect on their own learning and set goals.

> Teacher empowerment is the key to preparing students for an AI future, both in terms of educator training and student exposure to AI applications.

While AI presents exciting possibilities for K-12 education, it's important to use AI as a tool to empower educators and personalize learning, not replace human interaction and critical thinking skills.

Moreover, as teachers become more acclimated to AI and introduce it into their classrooms, AI-powered personalized learning and interactive tools can transform the larger learning culture. Adaptive learning platforms can provide targeted support and personalized instruction, catering to individual student needs. Curriculum customization through AI can help move away from a one-size-fits-all approach, while AI-powered games and simulations can make learning more engaging. Additionally, automating assessment tasks with AI can free up teachers' time, allowing them to focus on more complex instructional activities. By empowering teachers with technology and administrative support, they will be able to create a more effective and personalized educational experience for all students.

### *1b. Retraining and Reskilling Workers – a Successful Strategy*

The second area of intervention in the face of AI disruption is the retraining of workers. This is often suggested as a straightforward solution to address job displacement caused by AI. However, this oversimplifies the complex challenges faced by displaced workers.

First, it is essential to recognize that worker retraining, in the broadest terms, covers two different cases;

- **Reskilling:** Reskilling involves learning new skills often outside the same industry or occupation. A customer service representative might reskill to become a software engineer.
- **Upskilling:** This focuses on enhancing existing skills to improve performance in a current role. For instance, a graphic designer might upskill in video editing software.

Each of the worker segments has different needs that must be met, but accross the board, it is essential to provide funding through grants and scholarships for vocational training, coding bootcamps, and other programs that can assist both segments of workers. As AI continues to reshape the workforce, retraining programs become increasingly crucial. These programs should cater to a broad spectrum of workers, from those requiring minor skill adjustments to those who need to entirely pivot their careers.

#### For Workers Requiring Reskilling

Reskilling equips displaced workers with new competencies. It involves acquiring fresh skills and knowledge to transition into different roles or industries. This process often necessitates formal training, on-the-job learning, or a combi-

nation of both. Successful reskilling programs are crucial for mitigating job displacement caused by technological advancements and economic shifts. Each of the following initiatives will require significant financial investment, most likely through government funding.

**Career Counseling and Assessment:** Offering comprehensive career counseling to help displaced workers identify new career paths aligned with their skills and interests.

**Skill Assessment and Certification:** Providing opportunities for workers to assess their current skills and acquire new certifications to enhance their employability.

**Job Placement Services:** Partnering with employment agencies to help workers find new jobs that match their skills and experience.

**Wage Subsidies:** Offering temporary wage subsidies for workers transitioning to lower-paying jobs while they acquire new skills.

**Industry-Specific Training Programs:** Collaborating with industry partners to develop training programs tailored to emerging job roles in high-demand sectors.

**Skills Bootcamps:** Offering intensive, short-term training programs focused on in-demand skills like data analysis, programming, and digital marketing.

### *For Workers Requiring Upskilling*

Upskilling involves enhancing an employee's existing skill set to improve their performance in their current or future role.. This targeted training focuses on developing new skills or deepening existing knowledge to keep pace with evolving job requirements. An example would be training a designer in AI image generation to supplement their knowledge of graphics software.

By investing in upskilling, companies and the government (via tax credits discussed in Recommendation #5 below), can boost employee proficiency, adaptability, and overall job satisfaction.

**On-the-Job Training:** Companies can invest in training programs that equip employees with the skills needed to work alongside AI systems. This might involve learning to interpret AI-generated data, use AI tools effectively, or develop new skills that complement AI's capabilities.

**Tuition Reimbursement:** Offering financial support for employees to pursue further education or certifications related to their work can help them stay competitive in the evolving job market.

**Mentorship Programs:** Pairing experienced employees with those transitioning to new roles can facilitate knowledge transfer and skill development.

**AI Literacy Programs:** Providing basic AI literacy training to all employees can help them understand the technology's potential and limitations, fostering a more adaptable workforce.

**Public-Private Partnerships:** Leveraging government funding and industry expertise to create large-scale retraining initiatives.

### *The Long Term Outcome for Retraining Programs: Setting up Workers to be Lifelong Learners*

Whether a worker can be reskilled or upskilled is dependent on their individual circumstance. Despite that, the data in this report indicates that there will be a high level of variance in displacement across different occupations and regions. Because of this, public policy will need to address a wide variety of worker situations during periods of disruption.

Long-term, education should be a lifelong process, extending far beyond K-12 and university levels. By equipping individuals with the ability to continually learn and adapt, we can create a workforce suited to the evolving job market impacted by ever changing technology, even beyond AI.

The following material outlines strategies for developing workers into lifelong learners:

- **Grants and Scholarships:** Provide funding for vocational training, coding bootcamps, and other programs to help displaced workers acquire new skills relevant to the AI-powered economy.
- **Upskilling Initiatives:** Offer incentives for companies to invest in upskilling their existing workforce to adapt to new technologies and stay competitive. This could involve tax breaks or grants for companies that implement training programs.
- **Funding for Community Colleges and Trade Schools:** Increase funding and accessibility of community colleges and trade schools to make job retraining programs more readily available.

- **Lifelong Learning Culture:** Foster a culture of continuous learning within organizations to prepare employees for future technological changes.
- **Support for Entrepreneurship:** Provide resources and training for workers who want to start their own businesses.
- **Early Intervention:** Create programs or task forces that work to identify employees who are at risk of displacement and provide proactive support and retraining.
- **Collaboration:** Partnerships between government, industry, and educational institutions are essential for the success of retraining programs.

By implementing a combination of these suggestions, governments, businesses, and educational institutions can help workers navigate the challenges and opportunities presented by AI.

## 2/ Worker Safety Nets

These programs serve as a temporary cushion, providing financial stability and resources to help displaced workers re-enter the workforce.

As AI makes itself felt in the U.S., there is an opportunity to reexamine the following programs to determine if they can be strengthened or adapted to better support workers.

### *2a. Enhanced Unemployment Benefits*

Enhanced unemployment benefits can play a crucial role in providing financial assistance and breathing room to displaced workers as they navigate the complexities of an evolving job market.

In a 2021 study by economic and public policy research scholars, they concluded that "displacement harms workers' mental health and economic security in the short term and negatively affects their earnings and mortality risk in the long term" (5). This serves to underscore the importance of actively mitigating the effects of inevitable job displacement due to the growing use of AI in occupational settings. They continue: "Unemployment insurance or unemployment benefits can effectively mitigate the immediate negative effects of displacement and have only small downsides (5)."

Strengthening unemployment insurance benefits ensures that individuals who lose their jobs due to AI-induced disruptions are not left in financial and medical precariousness. Moreover, enhanced unemployment benefits provide displaced workers with the necessary time and resources to seek new employment opportunities or undergo retraining for emerging roles within the AI-driven economy. This financial assistance should be built to serve as a buffer, allowing individuals to focus on pursuing new opportunities without the threat of immediate financial stress or health complications forcing them into a position of diminished opportunity.

**Worker safety nets are a collection of social programs designed to protect individuals and families from financial hardship in the event of job loss. This support system has been a feature of the U.S. labor market for decades and typically includes unemployment benefits, food assistance, and healthcare coverage.**

Beyond the effects that these programs may have on individuals, there is also a knock-on effect on the broader community. Supporting displaced workers is essential for maintaining economic stability and preventing a sudden financial decline due to new levels of worker unemployment. Programs such as unemployment benefits, "… may be viewed as a collective resource with important external benefits, i.e., benefits to society over and above those to the unemployed who directly utilize such benefits" (6).

Further, generous support programs to assist unemployed workers are vital for the communities at large: "During such periods, higher generosity [of support programs for unemployed workers] leads to improved self-reported health (7)."

Offering more generous and extended worker support programs such as unemployment insurance can facilitate a smoother, safer transition for displaced workers. This approach serves to maintain pre-existing economic stability, protect displaced workers' wellbeing, and promote long-term economic growth, allowing workers to thrive in an AI-affected work environment.

### *2b. Portable Benefits*

Portable benefits refer to employee benefits that can be maintained or transferred even when an individual changes jobs. Unlike traditional benefits tied to a specific employer, portable benefits follow the employee from job to job. Examples include health insurance portability, wage insurance, retirement accounts like 401(k)s, health savings accounts (HSAs), and life insurance policies. This flexibility enhances job mobility and provides greater financial security for workers.

**Portable Health Insurance Programs**

An important component of portable benefits is the option to make health insurance more portable after displacement occurs. The program to allow health insurance portability is called COBRA, (Consolidated Omnibus Budget Reconciliation Act) and is a U.S. law that allows employees who lose their jobs to continue their health insurance coverage for a limited time as part of their previous employer's health plan. The displaced employee can realize the benefit of being in a group plan, which often has a lower cost than obtaining health insurance as an individual, but the entire cost of the health premiums is borne by the employee. While companies are required to offer COBRA, they are under no obligation to cover any part of the premium costs as they might have if the person was still an employee.

This condition places financial burdens on employees who do not have the financial means to take advantage of COBRA given the high cost of health insurance.

One approach to address this issue is an expansion of COBRA to make it more affordable for more workers. Opportunities for expanding COBRA to address AI-induced job displacement should be more comprehensive and long-lasting to align with the unique challenges posed by AI-driven disruptions. Here are some areas where COBRA could be expanded:

- **Eligibility Expansion:** Broaden the definition of qualifying events to include job loss due to automation or AI-driven restructuring.
- **Duration Extension:** Extend the COBRA coverage period to allow displaced workers more time to find new employment and secure alternative health insurance.
- **Cost Reduction:** Provide subsidies or tax credits to help displaced workers afford the COBRA premiums, which can often be prohibitively expensive.
- **Transition Assistance:** Offer expanded services beyond health insurance coverage, such as job search assistance, career counseling, and access to retraining programs.

This expansion should include buy-in programs with increased eligibility, extended coverage periods, reduced premiums, subsidization offerings, and streamlined processes for enrollment and continuation. Such measures would help displaced workers by lowering the barrier of entry to essential healthcare services, thereby preventing financial and medical precariousness during their job search and/or retraining periods.

A vital part of this expansion would need to include workers that were laid off either without a company-provided insurance plan, or while under a plan that doesn't qualify. Considering the current COBRA system, the demographic of citizens that qualify for coverage are heavily favored toward those with incomes at or above 200% of the federal poverty level (8). While 76% of workers in positions of this sort qualify for continued coverage, "only 38% of low-income workers would qualify for COBRA if they become unemployed" (8).

This inequality of healthcare insurance access for lower wage workers would necessitate the creation of a framework for partial and perhaps even full subsidization of insurance cost, especially for disadvantaged or low-income communities. The U.S. Department of Labor states: "COBRA continuation coverage is often more expensive than the amount that active employees are required to pay for group health coverage, since the employer usually pays part of the cost of employees' coverage and all of that cost can be charged to individuals receiving continuation coverage" (9). Therefore, the goal of the expansion is to allow all workers, not just the high wage earners, access to critical medical services through a combination of subsidization, buy-in programs, and the expansion of eligibility (even if on a case-by-case basis).

Lastly, any meaningful expansion of COBRA must include enrollment accessibility. The American Recovery and Reinvestment Act provided a 65 percent COBRA premium subsidy for workers laid off in 2008–2010, yet "despite the substantial

subsidy, a majority of eligible individuals did not enroll in COBRA" (10). Those that did; "had higher cost-sharing… higher incomes, were older, or were sicker [while those that did not] reported more access problems and that their health worsened" (10). In order to make an expansion of COBRA viable for everyone in need, the improved accessibility of enrollment is just as important as the other steps discussed.

In its current form, COBRA will not be sufficient to effectively accommodate the needs of workers displaced by AI's growing occupational influence. By implementing the proposed changes, COBRA could become a more robust safety net for workers facing displacement due to technological advancements.

### *2c. Wage Insurance*

Wage insurance programs provide workers whose new wages are lower than their pre-displacement wages with a temporary subsidy, covering a portion of the wage decline. This type of program would acknowledge the inevitability of wage reductions in certain occupations due to AI-driven efficiency, and cushion the financial blow to affected workers. In providing a financial buffer, wage insurance can alleviate the immediate economic insecurity that displaced workers face. This enables them to maintain a reasonable standard of living while they adapt to the changing market, whether that be through lifestyle changes that fit their new income, participating in reskilling programs, or simply finding a different job. Research from a 2021 study that looked into the largest and longest-running wage insurance program in the world (11) supports the efficacy of such programs, concluding: "wage insurance eligibility thus appears to encourage reemployment and shorten unemployment durations" (12).

Moreover, wage insurance can complement other strategies such as enhanced unemployment benefits and portable health insurance by addressing a specific gap in the social safety net that these strategies provide. While unemployment insurance offers support for those completely out of work, wage insurance targets those who have received pay cuts or secured new employment at reduced pay. This type of targeted support can be particularly beneficial in industries where AI is likely to cause significant pay cuts rather than complete job displacement. For instance, workers in roles that are partially automated may still be employed but with their job responsibilities and, consequently, their compensation scaled down. By mitigating the financial impact of such pay cuts, wage insurance programs can help maintain consumer spending and economic stability, thereby preventing a cascade of negative economic effects.

### *2d. Portable Employee Paid Accounts: 401(k)s, health savings accounts (HSAs), and life insurance policies*

Portable benefits offer a safety net for workers who lose their jobs. This means these benefits can be maintained or transferred to new employers, or held individually.

It must be noted that not all benefits are equally portable. There might be costs or limitations associated with transferring benefits between employers or plans. Understanding the specific terms of each benefit is crucial for displaced workers to make informed decisions. By understanding how these portable benefits work, displaced workers can better protect their financial well-being during job transitions.

That said, below are specific programs that could be adjusted to address the coming displacement of workers as a result of AI.

**401(k)s**

- Portability: Upon job loss, employees can often roll over their 401(k) balance into an Individual Retirement Account (IRA) or a new employer's 401(k) plan.
- Challenges: There might be fees associated with rollovers, and investment options in the new plan might differ.

**Health Savings Accounts (HSAs)**

- **Full Portability:** HSAs are owned by the individual, not the employer. This means they can be kept even after job loss.
- **Benefits:** The funds can continue to be used for qualified medical expenses, and the account can maintain its tax-advantaged status.
- **Challenges:** While funds in HSAs can rollover year to year, they are useful for individuals with a high-deductible health insurance plan. This means workers need to pay a significant amount out-of-pocket before any type of reimbursement is available.

**Life Insurance Policies**

- **Portability Varies:** Some life insurance policies are portable, allowing the policyholder to continue coverage with a new insurer. Others may require the policy to be converted to a new type with potentially higher premiums.
- **Challenges:** Many employees rely on employer-provided life insurance as a crucial financial safety net for their families. However, this coverage is often lost upon job termination, leaving families vulnerable in the event of the employee's death.

## 3/ Labor Market Policies:

Labor market policies are government interventions designed to protect workers, stimulate employment, and adjust the labor force to economic changes. In the context of AI-induced displacement, these policies aim to mitigate the negative impacts and maximize the benefits of this technological shift. The response is multi-dimensional and includes:

- **Social Safety Nets:** Strengthening unemployment benefits, providing healthcare access, and offering income support for displaced workers.
- **Education and Training:** Investing in programs to equip workers with the skills needed for the AI-driven economy, including reskilling and upskilling initiatives.
- **Job Creation:** Implementing policies to stimulate job growth in sectors less affected by automation, such as caregiving, education, and green jobs.
- **Wage Support and Subsidies:** Providing temporary wage subsidies for workers transitioning to new jobs or lower-paying positions.
- **Worker Protection Laws:** Ensuring fair labor practices and preventing the exploitation of workers during periods of rapid technological change.

While other elements are discussed in this report, there are two areas worthy of deeper examination in this section: Job Guarantee Programs and Worker Representation in AI Development.

### *3a. Job Guarantee Programs:*

Job guarantee programs can be implemented to provide direct employment opportunities to those in need, supporting displaced workers and maintaining a low unemployment rate. Because of their direct benefits to both workers and the national employment rate, these programs could provide a foundation for economic and social stability during times of unprecedented technological impact. One of the major benefits with a system like job guarantee programs is the fact that they can be tailored to address critical societal needs in sectors such as general infrastructure, renewable energy, and AI development and policy making.

There are historical precedents for implementing employment programs during economic downturns. The Great Depression saw the creation of several initiatives aimed at job creation and economic recovery. This was a period of extreme economic hardship that prompted an expansive government role in job creation and economic recovery through President Franklin D. Roosevelt's New Deal programs. Key government initiatives within this rescue package included:

**Direct Job Creation:** Programs like the Works Progress Administration (WPA) and Civilian Conservation Corps (CCC) employed millions of people in public works projects, such as constructing roads, bridges, and public buildings.

**Infrastructure Investment:** Government spending on large-scale infrastructure projects, such as the Tennessee Valley Authority (TVA), created jobs and improved living conditions in rural areas.

**Agricultural support:** Programs like the Agricultural Adjustment Act (AAA) aimed to stabilize farm prices and incomes, preventing further rural unemployment.

**Financial Reforms:** The creation of agencies like the Securities and Exchange Commission (SEC) sought to restore confidence in the financial system and prevent future economic crises.

**Social Safety Net Expansion:** During the height of the Great Depression in 1935, Social Security was launched. It provided a basic income floor for the elderly and disabled, reducingmhardship as a direct response to the economic trauma affecting many citizens.

These programs were enacted over 85 years ago and merit reexamination in today's context. To bring these approaches up-to-date, job guarantee programs can ensure that the workforce remains engaged and productive, reducing the social and,

often overlooked, psychological impacts of unemployment. Accordingly, through a job guarantee, there's a potential for ripple effects to permeate beyond the public and into the private sectors, improving the results for all workers regardless of income or sector.

Ultimately, government-funded job guarantee programs represent a multifaceted strategy that addresses many of the challenges posed by AI occupational adoption and integration. "Macroeconomically, the [job guarantee] works as an automatic countercyclical stabilizer and an excellent tool for aggregated demand management, ensuring the economy is continuously operating at full capacity" (14). Proponents argue that "the [job guarantee] qualifies for being a very effective policy in order to drive the economy towards full employment, maintain price stability, and realize many promising social benefits" (14).

### *3b. Worker Representation in AI Development*

The integration of AI into workplaces has been primarily driven by top-down management decisions. Businesses often implement AI to cut costs, with little to no worker input. This approach frequently disregards the potential impact on employees and their roles within the organization.

Encouraging worker representation regarding the integration of AI into the workplace can help ease the transition for those affected by its increased use. Employers can create management/worker committees and task forces to develop a roadmap for AI automation, ensuring policies and economic strategies consider the human impact. "The field of responsible AI urgently needs to clarify the powerful, capacious concept of [employee] representation, both because it is central to ensuring that the systems are beneficial and well-calibrated to the needs of those they affect, and because representation is a cherished value – that people may claim a right to – in and of itself" (15).

Without the active involvement of workers in these discussions, policies risk overlooking the nuanced realities of those directly affected by automation. The rise of a host of technologies such as generative AI, robotics, computer vision, and reinforcement learning all signify that implementation will only grow more widespread and effective, thus resulting in higher levels of displacement. To effectively address the challenges posed by AI-driven job displacement, open dialogue and collaboration between employers and employees is essential. By working together, they can identify potential impacts, develop strategies to mitigate negative consequences, and create opportunities for growth and development.

**Diverse Voices Are Essential for Labor Market Policies**

AI cannot navigate the complexities of social justice or community impacts when workers are displaced. Only workforce policies developed and implemented by people can create a balanced view that addresses the high human cost of AI worker displacement.

Labor market policy development and implementation requires a nuanced approach that not only takes social justice into account, but prioritizes it. This promotes new types of worker representation and broadens our understanding of who can help shape programs and policies aimed at addressing AI-related workforce disruption.

This reshaping of workers' roles allows for normally marginalized groups, such as low income households, citizens of color or immigrants, and non-traditional communities, to have a say in policy that will heavily impact their lives. As the AI revolution continues to reshape workers' jobs, new voices may also uncover strategies that can improve our social and occupational systems, which people outside of these communities may not be able to recognize as adeptly.

Furthermore, the inclusion of these voices will lead to improved reception and increased trust of the task forces by the public at large. A 2021 study examined the Federal Reserve's monetary policy committee, the FOMC, and how their diversity salience (showcased minority representation) affected the subjective opinions of citizens on the information that was distributed. They concluded that, "diversity salience appears to increase the effectiveness of FOMC communication in terms of influencing White female and Black individuals' macroeconomic expectations… [and simultaneously,] White men, the overrepresented group, do not react negatively" (16). In addition to increasing widespread receptiveness of presented information, the study showed that "diversity salience increases underrepresented groups' trust in the FOMC as well as their interest in gathering Fed-related information" (16).

As the labor market evolves in tandem with technological advancement, there exists a significant opportunity to enhance both economic productivity and workforce quality of life through carefully balanced policies that harmonize technological progress with human well-being.

By integrating the perspectives of workers (and specifically disadvantaged workers) into AI deployment within an organization, policies can be crafted to encourage not only efficiency but also job quality, security, and equity (addressed later in this Recommendation section). This inclusive approach can lead to AI implementations that complement and augment the workforce while also creating a softer landing for those inevitably displaced by AI.

Finally, there are clear benefits if workers can redefine their roles in companies by identifying additional areas where AI can improve and/or **create** new job opportunities. This would be conducive to the generation of innovative applications that would provide workers and companies better opportunities and outcomes.

**Ultimately, workers will start to play a pivotal role in crafting both systems and policies that harness AI's potential to drive economic growth while safeguarding the well-being and autonomy of the workforce.**

The government can actively encourage adopting a comprehensive approach that combines these elements, to ensure a smooth transition for workers affected by AI-driven job displacement.

## 4/ Universal Basic Income (UBI)

### *A Policy for the Age of AI*

When considering the effects of AI's growing impact on the workforce, UBI (Universal Basic Income) poses a unique solution to the problems of large-scale displacement due to automation.

By providing a regular, unconditional sum of money to all citizens, UBI can stabilize household incomes across the board, maintain some consistent level of consumer spending, and support overall economic stability during periods of technological upheaval. It does not fully replace other means of income, but provides a permanent income floor for all citizens to pay for basic goods and services.

This concept is not new and has a long history of support among highly accomplished economists including Milton Friedman, who received the 1976 Nobel Memorial Prize in Economic Sciences for his research on consumption analysis, and James Meade – a British economist and Nobel laureate who made major contributions to the theory of international trade and welfare economics. Many business leaders also have voiced their support for UBI including Mark Zuckerberg, Elon Musk and Sam Altman.

UBI is often misunderstood, from fears of reckless misuse of funds or benefits abuse, to more esoteric concerns like the deterioration of personal identity as a result of job loss. Data from many studies and pilot programs indicate that these apprehensions are misplaced (22).

One such study followed 3,000 participants from 2020 to 2023, providing 1,000 people with $1,000 a month over the course of three years, while the rest received $50 a month, serving as a control group. Members of the former group spent additional money on food, rent and transportation. "They also spent about 26 percent more [of their income] financially supporting others, typically family members or children, suggesting that the beneficiaries of guaranteed income programs extend beyond the actual participants" (22). UBI had little impact on employment, decreasing employment on average by 8 days a year, albeit only among single parents and young adults under age 30. This suggests that UBI could lead to some people doing a bit less paid work, but in the context of over 25% of the labor market being displaced, this seems less worrisome. In addition, there could be some benefits to employment decreases, when they may be a result of shifts toward unpaid care work, education, and searching for the best job available instead of the first job available.

Most convincingly, the largest UBI-like program that is active today is in Alaska, where each resident gets

a yearly dividend funded by Alaska's Permanent Fund Dividend (PFD), financed from the state's oil wealth. Started in 1982, this program is a real-world example of a UBI program that is productive, efficient and well-aimed in execution. In the 40 years this program has been operating, none of the feared issues have materialized. Residents do not work less but continue to pursue occupations that are meaningful to them. Inflation in Alaska has not increased. A multitude of positive effects have been observed including healthier birth weights and reduced child abuse.

It's important to note that the PFD is funded through a royalties system placed on oil companies, and has virtually no eligibility requirements beyond residency. It serves as a valuable case study for understanding the potential benefits of implementing a UBI program on a national level.

### *4a. The UBI Perception/Reality Gap — A Detailed Examination*

Too often, many questions challenge UBI as a practical policy across a wide spectrum of topics; How can we justify, pay for, and implement a system of universal basic income? Will funds be used for illegal or addictive substances like drugs or alcohol? Why should we deploy UBI when our entire economic framework is built to be capitalistic by nature? Isn't UBI a form of socialism?

These challenges have always been an impediment to the adoption of UBI policy. However, the extraordinarily significant impact of AI in virtually every facet of life compels policy makers to take a new look at UBI in the context of this seismic change.

Therefore, it is incumbent to effectively address the challenges to UBI so that it can be leveraged to address the unprecedented disruption to workers that AI implementation will bring nationwide.

#### Perception Gap #1: The U.S. Can't Afford UBI

A common and often dominant challenge to UBI is that it is not affordable. Critics argue that funding the program would require significant tax increases or that UBI could substantially increase government spending, leading to inflation.

These concerns highlight the financial challenges associated with implementing a UBI program on a large scale, but many economists recognize that there are various strategies that can be used to fund UBI without risking excessive taxes or inflation.

**UBI is often misunderstood, from fears of reckless misuse of funds or benefits abuse, to more esoteric concerns like the deterioration of personal identity as a result of job loss. Data from many studies and pilot programs indicate that these apprehensions are misplaced.**

#### There Are a Few Options for Funding UBI

Alaska's annual dividend program provides the blueprint for one funding option. In Alaska's case, the state oil revenue funds the state-wide dividend (18). A national interpretation of this concept is to reward Americans for all the data they have contributed to the development of AI; "...it could be seen as a rightful dividend to those whose data provided the capital to train large generative transformers like GPT-4, which was all of us" (18). The funding source for basic income can be the companies who use AI, or develop and commercialize its applications to increase overall productivity.

Another possible solution to the issue of fund procurement would be to implement a tax on carbon consumption (18). This approach could levy a tax on carbon emissions and the collected revenue would form a substantial fund. An added benefit would be the increased incentive for businesses to adopt cleaner energy sources. This approach is not without its challenges, such as political resistance, or potential time limits on the usefulness of a carbon consumption tax, as the shift to renewable energy accelerates. Nevertheless, by coupling a carbon tax with a UBI, governments can address environmental challenges while providing a safety net for citizens.

Finally, UBI could also be financed through mechanisms such as increased taxes on the wealthiest individuals, a value-added tax (VAT), a small fee on all digital transactions or bank deposits, reallocation of existing welfare funds and tax subsidies, or annual issuance of new stock by publicly-traded companies into a sovereign wealth fund. It's also possible to introduce UBI at the state level as Alaska has, through funding mechanisms other than oil

wealth, like for example land value taxes, (18). Addressing the question, "Why should I pay for you?" involves recognizing the collective benefits of a stable society. When communities are financially secure, they are collectively healthier (20), and their economy is given the foundation necessary for growth (21).

**Perception Gap #2: Misuse of Funds**

One of the primary concerns about implementing a Universal Basic Income (UBI) is the potential for increased spending on substances like drugs and alcohol. Critics argue that providing a guaranteed income without sufficient support or incentives to encourage productive behavior could lead to increased substance abuse.

Data from many pilots and cash-based programs have conclusively proven this concern to be misplaced. A large peer-reviewed meta-analysis (39) of studies examining the impact of cash on the use of "temptation goods" like drugs and alcohol found a "significant negative effect." On average, use goes down, not up. The researchers concluded that "concerns about the use of cash transfers for alcohol and tobacco are unfounded" (39).

**Perception Gap #3: Undermines the Dignity of Work Ethos**

Additionally, some argue that UBI could diminish individuals' sense of identity, as work is often tied to self-worth in the Western world, and with UBI comes the potential for people to live without working.

We must acknowledge that studying UBI in its broadest context is difficult and involves many different fields of study, including ethics and philosophy, social studies, and psychology, all while tackling underlying questions of human dignity. That said, many UBI pilots have shown that a regular income can enhance rather than detract from an individual's dignity in a few ways:

- Breaking stigma: UBI can help break the stigma that links economic need with financial dependency. An extreme example of this is the billions of dollars' worth of childcare or elder care that sees no direct compensation.
- Encouraging personal growth: UBI can provide a safety net that encourages personal growth and entrepreneurship – an option unavailable to many who are trapped in jobs they hate because of the lack of other options.
- Providing more time to find employment: UBI can give people more time to find the most suitable employment opportunities, rather than having to take the first available job.
- Tailoring to local needs: It is important to note that while UBI arguably should be nationally uniform, local versions of it can be tailored to local economic conditions and needs. A variety of UBI programs at the city, county, and state level can exist as additions to federal programs.
- Using graduated models: 'Negative Income Tax' models decrease the amount as income rises, ensuring that the most vulnerable receive more support. This can also be accomplished by pairing UBI with progressive taxes.
- Experimenting with pilot programs: Pilot programs can help guide the refinement of UBI models through examination of data and continued adjustment as the program ages.

Enacting UBI is a major innovation in finally detaching an individual's value from their occupation. UBI is a tacit understanding that personal value and dignity extends far beyond their occupation, and those without work are still people with identities and values unique to them. Suggesting that someone who is laid off, retired, or simply choosing not to exchange their labor for capital at a given moment in time has a reduced level of identity or value should be immediately recognized as absurd.

For instance, a 2015 study found that almost one-third of the U.S. population are informal caregivers and collectively provide about 1.2 billion hours of unpaid work weekly, the equivalent of about 30.5 million full-time care aides.

This significant portion of the population contributes to society in a crucial yet uncompensated role. Additionally, individuals pursuing passions like art, music, or education often derive profound personal satisfaction that end up improving the wellbeing of their communities, even when these pursuits do not generate income.

In this sense, we can see that the argument being presented is not that our occupations give us a sense of identity, but rather that the income we receive in exchange for our labor is what determines value and identity. UBI offers an alternative view that decouples identity from work.

Ultimately, UBI mitigates the adverse effects of job

loss with the means to adapt to a rapidly changing job market, thus creating an environment for people to carve out a new identity, one based on on their contributions to the community – not who they work for.

A 2015 study found that almost one-third of the U.S. population are informal caregivers and collectively provide about 1.2 billion hours of unpaid work weekly, the equivalent of about 30.5 million full-time care aides.

**Perception Gap #4: UBI is a socialist policy.**

First, the definition of socialism is understood to mean an economic and political system characterized by social ownership and democratic control of the means of production. In other words, the resources and industries of a nation are owned by the community as a whole, rather than by individual entities.

In absolute terms, while both UBI and socialism aim to improve the lives of citizens, they represent radically different systems with very different means of doing so.

The key difference between UBI and socialism is that UBI provides a set amount of money to all citizens regardless of their income or employment status to spend in markets. It operates within a capitalist framework, meaning private ownership and market forces still exist. UBI can be thought of as concerning the means of consumption, not production.

Socialism is a broader economic and political system that advocates for collective ownership. Comparatively, UBI is a specific policy that addresses income inequality and economic insecurity. Too often, the label of socialism is applied to UBI to make it seem non-viable in the U.S. However, despite the similarities between UBI and Social Security, as a guaranteed income program, Social Security is never confused for socialism and neither is Alaska's annual universal dividend.

### *4b. A Roadmap to UBI*

The feasibility of implementing a Universal Basic Income policy in the United States can be investigated through a comprehensive study of comparable social welfare policies that have already been implemented. Again, the establishment of Social Security in 1935 provides a precedent for large-scale, government-administered financial assistance programs, demonstrating the logistical capabilities and broader public acceptance of such initiatives (24).

This system's history of providing a safety net to vulnerable populations can serve as a valuable point of comparison for the implementation of UBI, especially as AI technologies continue to disrupt traditional employment structures at accelerating rates, and leave more workers in more vulnerable positions.

Opponents to Universal Basic Income implementation and its political feasibility (25) cite "three important practical bottlenecks that may prevent a basic income scheme from attaining the universal reach desired and proclaimed by its advocates" (26).

1. The first listed is the maintenance of a population-wide "cadaster of eligible claimants ensuring full takeup" (26). Essentially, this cadaster serves as a centralized repository of information needed to administer the UBI program efficiently and accurately. By maintaining a thorough and up-to-date cadaster, government agencies can ensure that UBI benefits reach the intended recipients without errors or fraud.

   Today, the Social Security numbers system is efficient at serving as a data ID for individuals that tracks earnings and contributions, and verifies applications and benefits. This structure is inclusive of all citizens – from employers to individuals that are self employed (27, 28).

   When we consider UBI's implementation, we can see how a similar structuring is not only comprehensible but highly feasible. The first step would be the establishment of a National Basic Income (NBI) Administration which manages and maintains necessary records, alongside the assignment and distribution of NBI numbers to citizens as they become eligible for UBI benefits.

   The rollout of Social Security, by no means a small feat (28), is a precursor to a UBI rollout. This too can be used to guide the administration of a UBI program. Today, Social Security

is a fundamental benefit that offers all citizens over the age of 70 an income, free of spending restrictions or conditions. In fact, today, Social Security remains predominantly well received (29). Americans across the board "want to strengthen Social Security's finances and are willing to contribute more [of their income] to the program… they view it as vital insurance that provides essential economic security for themselves, their families and their communities" (29).

The similarities to Universal Basic Income are clear and just as necessary in the AI-driven workplace of the future.

2. The second practical bottleneck raised is; "instituting robust modalities of payment that reach all intended beneficiaries" (26). Social Security payments are distributed electronically, via direct deposit, which may be argued impedes distribution to certain intended beneficiaries due to the requirement of an electronic banking access.

   However, while most U.S. households had bank accounts as of 2021, approximately 5% of U.S. adults were considered unbanked, meaning they did not have a checking or savings account (30). Additionally, a larger portion of the population, around 13%, was underbanked. This means they had a bank account but relied on alternative financial services like payday loans, check cashing, or prepaid cards for their primary financial needs. While this presents some distribution challenges, there are available options for providing easy access to all recipients, such as postal banking as a method to ensure universal availability to a free banking account, or the possibility of Federally-provided bank accounts.

3. The third and final practical bottleneck posed is the problem of: "designing an effective oversight mechanism in a policy context that actively opposes client monitoring" (26).

   This question fails to account for the unique nature of UBI, in which monitoring is greatly reduced versus entitlement programs. Much like Social Security where all citizens over 65 are eligible, the monitoring required is much less than food or housing aid programs which can be significantly abused. According to the Social Security Administration, the annual overhead expense for Social Security as a percentage of total cost was 0.5% in 2023. The universal nature of UBI and the unrestricted use of funds allows for less stringent, and thus more affordable, program oversight..

Ultimately, the argument for UBI is best captured by Scott Santens, Founder and President of the non-profit: Income To Support All Foundation, whose mission is to help UBI become policy. He writes: "We can choose the path where we all equally share in the massive wealth generation that AI makes possible... or we can choose the path we're currently still on, where AI makes life harder for a large percentage of the population while massively enriching a relative few, and where jobs really do become harder to come by because spending power has been concentrated in too few hands to provide sufficient overall demand to fuel our economy" (23).

## 5/ Tax Incentives:

### *5a. Tax Breaks for Retraining and Reskilling*

Companies can qualify for tax credits by investing in employee training and development. This includes programs for acquiring new skills within existing roles (upskilling), developing skills for new occupations (reskilling), or gaining the ability to work alongside AI technologies. In addition, there are a number of ways the government can offer tax credits and incentives to companies based on diverse factors such as the number of employees enrolled in training programs or the amount invested in training.

**Tax Incentives for Employee Retraining**

There is general agreement that offering companies tax credits for retraining delivers substantial benefits to workers and employers alike.

One method of incentive is where the government can encourage businesses to take proactive

We can choose the path where we all equally share in the massive wealth generation that AI makes possible... or we can choose the path we're currently still on, where AI makes life harder for a large percentage of the population.

measures in keeping their human workforce, while simultaneously investing in those workers by training them for higher-level tasks as automation handles their prior positions.

Retraining initiatives can contribute to long-term, nation-wide economic growth, as was found in a cross-country analysis from 2010 (36). As countries (and subsequently, companies) invest in the development of their workforce, they not only enhance their competitive edge but also contribute to the overall skill level of the labor market (36). This can lead to increased productivity, innovation, and economic resilience (36, 37, 38).

Additionally, such programs can help mitigate the social costs associated with unemployment, such as mental health issues and economic insecurity, by providing displaced workers with viable pathways to new employment opportunities. Ultimately, by leveraging tax breaks to encourage workforce retraining, governmental bodies can play a pivotal role in supporting both businesses and workers in navigating the challenges posed by AI integration, thereby fostering a more inclusive and sustainable economic future for the country at large.

The overall strategy to leverage tax credits for retraining is one where employers motivate employees to adopt a: "...continuous learning and upgrading of abilities [necessary to] sustain and secure their position in the job market by contributing in a way that is significant for growth, economical for the company and personally for the employee" (35). The continuous learning tax incentive will help to maintain jobs, while also improving the long-term efficiency of businesses that are able to make use of such multi-level workforce upscaling (36).

Crucially, this type of tax credit can reduce the financial burden on companies, making it more feasible for them to undertake costly reskilling programs. This is particularly important for small and medium-sized enterprises that may lack the resources to invest in employee development independently. Research into this type of tax credit has demonstrated its effectiveness as a 2015 study found: "tax cuts [for training] have a large impact on innovation…" (37).

Thus, it likely makes the most sense to cater the size of the tax cuts to the business' scale, giving more breathing room to smaller companies who have less to gain from reskilling programs (and from the tax breaks themselves), while providing smaller tax cuts to larger corporations who have greater capacities, resources, and intrinsic incentive to upscale their workforce.

Overall, these tax incentives can be a powerful tool in balancing the scales, ultimately supporting a smoother transition for both businesses and employees in the evolving job market. This approach also bridges the skill gap that accompanies technological advancements, ensuring that displaced workers can transition into new roles without significant economic or social disruption (38).

### *5b. A Tax Credit That Focuses on Job Quality*

Another unconventional but possible tax credit worthy of exploration is one that incentivizes companies to maintain or improve job quality in the face of AI integration.

**Job Quality Tax Credit**

This tax credit would be awarded to companies that demonstrate a commitment to preserving or enhancing job quality as they implement AI technologies.

Some potential criteria for qualification for a tax credit might include:

- **Employee Satisfaction:** Metrics such as employee turnover, engagement, and satisfaction surveys could be used to assess job quality.
- **Wage Growth:** Companies that maintain or increase wages for affected employees would be eligible for the credit.
- **Skill Development:** Investments in employee training and upskilling programs would be considered.
- **Work-Life Balance:** Companies that offer flexible work arrangements or other benefits to improve employee well-being could qualify.
- **Career Development:** Investments in employee training, promotions, and opportunities for advancement would be taken in to account.
- **Compensation and Benefits:** Wages, salaries, and benefits packages relative to industry standards would be examined.
- **Health and Safety:** Workplace safety records and employee well-being initiatives would also help businesses qualify..

By focusing on job quality, this tax credit encourages companies to prioritize their workforce as they embrace AI.

**Challenges and Considerations**

Any innovation in tax policy for enhancing job quality requires clear definitions, standardized processes, consistent guidelines and equitable monitoring. Unquestionably, creating a cohesive set of guidelines and requirements is most challenging in this context:

- **Subjectivity:** Defining and measuring job quality can be subjective. It's essential to establish clear and standardized metrics to avoid abuse of the tax credit.
- **Potential for Over-Reliance:** Companies might focus solely on metrics that are easy to manipulate rather than truly improving job quality.
- **Data Privacy:** Collecting employee data to assess job quality must comply with privacy regulations.
- **Tiered Credit System:** Consider a tiered tax credit system, with higher credits for companies demonstrating exceptional job quality.
- **Industry-Specific Metrics:** Different industries may have unique factors influencing job quality. Tailoring metrics to specific sectors can improve the effectiveness of the credit.
- **Public Reporting:** Requiring companies to publicly report their job quality metrics can increase transparency and accountability.

Ultimately, investing in job quality is a strategic move to build a future-ready workforce that can drive economic prosperity and innovation.

### *5c. Tax Credits for AI Implementation*

This is another emerging category of tax credits that takes a broader approach to incentivizing companies to implement AI technologies in ways that complement and augment the workforce, rather than replace it. Here are six potential models:

- **AI Augmentation Tax Credit:** A direct tax credit for companies that invest in AI technologies and processes specifically designed to enhance human capabilities rather than replace them. This credit could be based on a percentage of the investment in AI augmentation projects.
- **AI-Human Collaboration Tax Credit:** A tax credit for companies that demonstrate successful AI and human collaboration in the workplace. This credit could be based on metrics like increased productivity, improved product quality, or reduced employee turnover.
- **AI Impact Assessment Tax Credit:** To encourage proactive planning, companies could receive a tax credit for conducting thorough assessments of AI's potential impact on their workforce and implementing strategies to mitigate job displacement.
- **AI Ethics Tax Credit:** Reward companies that prioritize ethical AI development and deployment, including those that focus on data privacy, algorithmic fairness, and worker safety.
- **Wage Insurance Tax Credit:** This credit could be offered to companies that provide wage insurance to employees whose wages are reduced due to AI-related changes in their roles.

Finally, offering tax incentives must be manageable, transparent and accountable.

- **Clarity and Measurability:** The tax credit criteria should be clear and measurable to prevent abuse and ensure accurate administration.
- **Targeted Impact:** The policies should be designed to specifically incentivize AI augmentation strategies rather than broad AI adoption.
- **Cost-Benefit Analysis:** A careful evaluation of the potential costs and benefits of each tax credit is essential to optimize policy effectiveness.

### *5d. Expand Trade Adjustment Assistance (TAA)*

TAA is a federal program in the United States designed to help workers who lose their jobs or experience reduced hours and wages due to increased imports. This mitigates the financial and emotional hardship faced by workers with resources and support needed to to help them transition into new careers.

TAA offers a variety of benefits and services to eligible workers, including: training, job search assistance, income support and healthcare coverage. Currently, TAA does not specifically cover worker displacement caused by AI, as TAA was designed to address job losses resulting from increased imports, a very specific economic challenge.

### Adapting TAA for the Age of AI

Recognizing this gap, there have been discussions and proposals to expand or modify programs like TAA to encompass AI-related job displacement. Some potential options include:

- **Expanding TAA eligibility:** Broadening the definition of "increased imports" to include disruptions caused by technological advancements.
- **Income support:** Financial assistance to help workers maintain a basic standard of living while seeking new employment.
- **Healthcare coverage:** Continuation of health insurance benefits during the job search process.
- **Job training:** Opportunities to learn new skills and prepare for emerging job markets.
- **Job placement services:** Assistance in finding suitable employment.
- **Relocation allowances:** Support for workers who need to move to find new job opportunities.

With proper public funding and tax credits, affected workers can transition to new careers or better jobs within their current industries as both workers and employers navigate the new AI-powered economy.

# 5. FINAL THOUGHTS: CHALLENGES AND CONSIDERATIONS



# 5. FINAL THOUGHTS: CHALLENGES AND CONSIDERATIONS

It's important to note that this is an evolving area of study, and policymakers are actively considering ways to support workers impacted by automation and AI. While these recommendations are meant to provide a wide variety of options to address workforce displacement due to AI, there is no one policy or solution that will address every worker displacement circumstance. Further, the rate and pace of worker displacement will be highly volatile in the coming years, requiring a nimble response plan that can adjust to the reality on the ground.

> "The rate of worker displacement will be highly volatile in the coming years, requiring a nimble response plan that can adjust to the reality on the ground."

With that being said, there are overarching circumstances that will impact how successful policy makers and local communities are at creating a soft landing for workers impacted by AI. National and global next steps should prioritize:

**Ethical AI Development:** Promote ethical guidelines for AI development that prioritize responsible job creation and human well-being.

**Investment in Emerging Industries:** Encourage investment in new industries that can create job opportunities in areas like AI development, renewable energy, and data science.

**Equity and Access:** Ensure that all students have access to AI-powered learning tools and technology infrastructure.

**Teacher Training:** Train educators on effectively integrating AI tools into their teaching practices and using data-driven insights to personalize learning.

**Ethical Considerations:** Data privacy, algorithmic bias, and the potential over-reliance on AI for assessment are important issues to address.

In conclusion, the most effective approach likely involves a combination of strategies to address the challenges of worker disruption due to AI. It is our hope that this report provides a baseline for developing sustainable solutions to the effects of the AI driven market that is to come.

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# 6b. CONTRIBUTOR BIOGRAPHIES

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Scott is the founder and president of the Income To Support All Foundation, a non-profit whose mission is to support ambitious projects that help realize UBI through research, storytelling, and direct implementation. He's also Senior Advisor for Humanity Forward, an organization dedicated to educating lawmakers on bipartisan evidence-based policy solutions on behalf of the nation's families, communities, and economy. Additionally, he serves on the board of directors of the Gerald Huff Fund for Humanity, a non-profit organization utilizing various programs and initiatives to raise awareness of the threat of technological unemployment and further educate individuals about the benefits of UBI. Scott has actively used social media and other online forums, including Basic Income Today, where Santens serves as an editor, to make the case for UBI as a practical solution to address poverty, job insecurity, and challenges posed by automation and technological advancement. He emphasizes that providing every citizen with a dividend can not only reduce poverty and insecurity but also stimulate economic growth and empower individuals to pursue their goals and dreams. He is the author of the book, Let There Be Money, in which he connects the economic dots for everyone to see the big picture of humanity's relationship to money.

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# 7. APPENDIX

- 7a. Industry-Occupation Mapping Table
- 7b. Skill and Skill Impact Score Table
- 7c. Occupation (Skill, Skill Impact Score) Table
- 7d. Industry (Skill, Skill Impact Score) Table



# 7. APPENDIX

## 7a. Industry-Occupation Mapping Table

*Table A1. Industry of Occupations*

| Industry | Occupation |
|---|---|
| Wholesale Trade | Electric Motor, Power Tool, and Related Repairers |
| Wholesale Trade | Farm Equipment Mechanics and Service Technicians |
| Wholesale Trade | Fashion Designers |
| Wholesale Trade | First-Line Supervisors of Non-Retail Sales Workers |
| Wholesale Trade | Medical Equipment Repairers |
| Wholesale Trade | Mobile Heavy Equipment Mechanics, Except Engines |
| Wholesale Trade | Order Clerks |
| Wholesale Trade | Sales Engineers |
| Wholesale Trade | Sales Managers |
| Wholesale Trade | Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products |
| Wholesale Trade | Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products |
| Retail Trade | Audiovisual Equipment Installers and Repairers |
| Retail Trade | Automotive and Watercraft Service Attendants |
| Retail Trade | Automotive Service Technicians and Mechanics |
| Retail Trade | Bicycle Repairers |
| Retail Trade | Butchers and Meat Cutters |
| Retail Trade | Cashiers |
| Retail Trade | Coin, Vending, and Amusement Machine Servicers and Repairers |
| Retail Trade | Computer, Automated Teller, and Office Machine Repairers |
| Retail Trade | Electronic Equipment Installers and Repairers, Motor Vehicles |
| Retail Trade | First-Line Supervisors of Retail Sales Workers |
| Retail Trade | Floral Designers |
| Retail Trade | General and Operations Managers |
| Retail Trade | Hearing Aid Specialists |
| Retail Trade | Jewelers and Precious Stone and Metal Workers |
| Retail Trade | Manufactured Building and Mobile Home Installers |
| Retail Trade | Merchandise Displayers and Window Trimmers |
| Retail Trade | Models |
| Retail Trade | Motor Vehicle Operators, All Other |
| Retail Trade | Motorboat Mechanics and Service Technicians |

*continued on next page*

*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Retail Trade | Motorcycle Mechanics |
| Retail Trade | Musical Instrument Repairers and Tuners |
| Retail Trade | Outdoor Power Equipment and Other Small Engine Mechanics |
| Retail Trade | Packers and Packagers, Hand |
| Retail Trade | Parts Salespersons |
| Retail Trade | Pharmacists |
| Retail Trade | Pharmacy Aides |
| Retail Trade | Pharmacy Technicians |
| Retail Trade | Recreational Vehicle Service Technicians |
| Retail Trade | Retail Salespersons |
| Retail Trade | Sales and Related Workers, All Other |
| Retail Trade | Stockers and Order Fillers |
| Retail Trade | Tailors, Dressmakers, and Custom Sewers |
| Retail Trade | Tire Repairers and Changers |
| Retail Trade | Watch and Clock Repairers |
| Finance and Insurance | Actuaries |
| Finance and Insurance | Brokerage Clerks |
| Finance and Insurance | Claims Adjusters, Examiners, and Investigators |
| Finance and Insurance | Compensation, Benefits, and Job Analysis Specialists |
| Finance and Insurance | Correspondence Clerks |
| Finance and Insurance | Credit Analysts |
| Finance and Insurance | Credit Authorizers, Checkers, and Clerks |
| Finance and Insurance | Customer Service Representatives |
| Finance and Insurance | Financial and Investment Analysts |
| Finance and Insurance | Financial Clerks, All Other |
| Finance and Insurance | Financial Examiners |
| Finance and Insurance | Financial Managers |
| Finance and Insurance | Financial Risk Specialists |
| Finance and Insurance | Financial Specialists, All Other |
| Finance and Insurance | Insurance Appraisers, Auto Damage |
| Finance and Insurance | Insurance Claims and Policy Processing Clerks |
| Finance and Insurance | Insurance Sales Agents |
| Finance and Insurance | Insurance Underwriters |
| Finance and Insurance | Loan Interviewers and Clerks |
| Finance and Insurance | Loan Officers |
| Finance and Insurance | New Accounts Clerks |

*continued on next page*

*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Finance and Insurance | Personal Financial Advisors |
| Finance and Insurance | Securities, Commodities, and Financial Services Sales Agents |
| Finance and Insurance | Tellers |
| Educational Services | Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors |
| Educational Services | Agricultural Sciences Teachers, Postsecondary |
| Educational Services | Anthropology and Archeology Teachers, Postsecondary |
| Educational Services | Architecture Teachers, Postsecondary |
| Educational Services | Archivists |
| Educational Services | Area, Ethnic, and Cultural Studies Teachers, Postsecondary |
| Educational Services | Art, Drama, and Music Teachers, Postsecondary |
| Educational Services | Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary |
| Educational Services | Biological Science Teachers, Postsecondary |
| Educational Services | Bus Drivers, School |
| Educational Services | Business Teachers, Postsecondary |
| Educational Services | Career/Technical Education Teachers, Middle School |
| Educational Services | Career/Technical Education Teachers, Postsecondary |
| Educational Services | Career/Technical Education Teachers, Secondary School |
| Educational Services | Chemistry Teachers, Postsecondary |
| Educational Services | Choreographers |
| Educational Services | Coaches and Scouts |
| Educational Services | Communications Teachers, Postsecondary |
| Educational Services | Computer Science Teachers, Postsecondary |
| Educational Services | Credit Counselors |
| Educational Services | Criminal Justice and Law Enforcement Teachers, Postsecondary |
| Educational Services | Economics Teachers, Postsecondary |
| Educational Services | Education Administrators, All Other |
| Educational Services | Education Administrators, Kindergarten through Secondary |
| Educational Services | Education Administrators, Postsecondary |
| Educational Services | Education Teachers, Postsecondary |
| Educational Services | Educational Instruction and Library Workers, All Other |
| Educational Services | Educational, Guidance, and Career Counselors and Advisors |
| Educational Services | Elementary School Teachers, Except Special Education |
| Educational Services | Engineering Teachers, Postsecondary |
| Educational Services | English Language and Literature Teachers, Postsecondary |
| Educational Services | Environmental Science Teachers, Postsecondary |

*continued on next page*

*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Educational Services | Executive Secretaries and Executive Administrative Assistants |
| Educational Services | Facilities Managers |
| Educational Services | Family and Consumer Sciences Teachers, Postsecondary |
| Educational Services | Farm and Home Management Educators |
| Educational Services | Foreign Language and Literature Teachers, Postsecondary |
| Educational Services | Forestry and Conservation Science Teachers, Postsecondary |
| Educational Services | Geography Teachers, Postsecondary |
| Educational Services | Health Specialties Teachers, Postsecondary |
| Educational Services | History Teachers, Postsecondary |
| Educational Services | Instructional Coordinators |
| Educational Services | Kindergarten Teachers, Except Special Education |
| Educational Services | Law Teachers, Postsecondary |
| Educational Services | Librarians and Media Collections Specialists |
| Educational Services | Library Science Teachers, Postsecondary |
| Educational Services | Mathematical Science Teachers, Postsecondary |
| Educational Services | Middle School Teachers, Except Special and Career/Technical Education |
| Educational Services | Nursing Instructors and Teachers, Postsecondary |
| Educational Services | Office and Administrative Support Workers, All Other |
| Educational Services | Philosophy and Religion Teachers, Postsecondary |
| Educational Services | Physics Teachers, Postsecondary |
| Educational Services | Political Science Teachers, Postsecondary |
| Educational Services | Postsecondary Teachers, All Other |
| Educational Services | Protective Service Workers, All Other |
| Educational Services | Psychology Teachers, Postsecondary |
| Educational Services | Recreation and Fitness Studies Teachers, Postsecondary |
| Educational Services | School Bus Monitors |
| Educational Services | School Psychologists |
| Educational Services | Secondary School Teachers, Except Special and Career/Technical Education |
| Educational Services | Secretaries and Administrative Assistants, Except Legal, Medical, and Executive |
| Educational Services | Self-Enrichment Teachers |
| Educational Services | Social Science Research Assistants |
| Educational Services | Social Sciences Teachers, Postsecondary, All Other |
| Educational Services | Social Work Teachers, Postsecondary |
| Educational Services | Sociology Teachers, Postsecondary |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Educational Services | Special Education Teachers, All Other |
| Educational Services | Special Education Teachers, Middle School |
| Educational Services | Special Education Teachers, Preschool |
| Educational Services | Special Education Teachers, Secondary School |
| Educational Services | Substitute Teachers, Short-Term |
| Educational Services | Teachers and Instructors, All Other |
| Educational Services | Teaching Assistants, Postsecondary |
| Educational Services | Training and Development Specialists |
| Educational Services | Tutors |
| Real Estate and Rental and Leasing | Concierges |
| Real Estate and Rental and Leasing | Counter and Rental Clerks |
| Real Estate and Rental and Leasing | Maintenance and Repair Workers, General |
| Real Estate and Rental and Leasing | Property, Real Estate, and Community Association Managers |
| Real Estate and Rental and Leasing | Real Estate Brokers |
| Real Estate and Rental and Leasing | Real Estate Sales Agents |
| Health Care and Social Assistance | Acupuncturists |
| Health Care and Social Assistance | Ambulance Drivers and Attendants, Except Emergency Medical Technicians |
| Health Care and Social Assistance | Anesthesiologists |
| Health Care and Social Assistance | Athletic Trainers |
| Health Care and Social Assistance | Audiologists |
| Health Care and Social Assistance | Billing and Posting Clerks |
| Health Care and Social Assistance | Cardiologists |
| Health Care and Social Assistance | Cardiovascular Technologists and Technicians |
| Health Care and Social Assistance | Childcare Workers |
| Health Care and Social Assistance | Chiropractors |
| Health Care and Social Assistance | Clinical and Counseling Psychologists |
| Health Care and Social Assistance | Community Health Workers |
| Health Care and Social Assistance | Cooks, Institution and Cafeteria |
| Health Care and Social Assistance | Counselors, All Other |
| Health Care and Social Assistance | Dental Assistants |
| Health Care and Social Assistance | Dental Hygienists |
| Health Care and Social Assistance | Dentists, All Other Specialists |
| Health Care and Social Assistance | Dentists, General |
| Health Care and Social Assistance | Dermatologists |
| Health Care and Social Assistance | Diagnostic Medical Sonographers |
| Health Care and Social Assistance | Dietetic Technicians |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Health Care and Social Assistance | Dietitians and Nutritionists |
| Health Care and Social Assistance | Education and Childcare Administrators, Preschool and Daycare |
| Health Care and Social Assistance | Emergency Medical Technicians |
| Health Care and Social Assistance | Emergency Medicine Physicians |
| Health Care and Social Assistance | Exercise Physiologists |
| Health Care and Social Assistance | Family Medicine Physicians |
| Health Care and Social Assistance | First-Line Supervisors of Office and Administrative Support Workers |
| Health Care and Social Assistance | Food Servers, Nonrestaurant |
| Health Care and Social Assistance | General Internal Medicine Physicians |
| Health Care and Social Assistance | Genetic Counselors |
| Health Care and Social Assistance | Health Education Specialists |
| Health Care and Social Assistance | Health Information Technologists and Medical Registrars |
| Health Care and Social Assistance | Health Technologists and Technicians, All Other |
| Health Care and Social Assistance | Healthcare Practitioners and Technical Workers, All Other |
| Health Care and Social Assistance | Healthcare Social Workers |
| Health Care and Social Assistance | Healthcare Support Workers, All Other |
| Health Care and Social Assistance | Interviewers, Except Eligibility and Loan |
| Health Care and Social Assistance | Licensed Practical and Licensed Vocational Nurses |
| Health Care and Social Assistance | Magnetic Resonance Imaging Technologists |
| Health Care and Social Assistance | Marriage and Family Therapists |
| Health Care and Social Assistance | Medical and Health Services Managers |
| Health Care and Social Assistance | Medical Assistants |
| Health Care and Social Assistance | Medical Dosimetrists |
| Health Care and Social Assistance | Medical Equipment Preparers |
| Health Care and Social Assistance | Medical Records Specialists |
| Health Care and Social Assistance | Medical Secretaries and Administrative Assistants |
| Health Care and Social Assistance | Medical Transcriptionists |
| Health Care and Social Assistance | Mental Health and Substance Abuse Social Workers |
| Health Care and Social Assistance | Neurologists |
| Health Care and Social Assistance | Nuclear Medicine Technologists |
| Health Care and Social Assistance | Nurse Anesthetists |
| Health Care and Social Assistance | Nurse Midwives |
| Health Care and Social Assistance | Nurse Practitioners |
| Health Care and Social Assistance | Nursing Assistants |
| Health Care and Social Assistance | Obstetricians and Gynecologists |
| Health Care and Social Assistance | Occupational Therapists |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Health Care and Social Assistance | Occupational Therapy Aides |
| Health Care and Social Assistance | Occupational Therapy Assistants |
| Health Care and Social Assistance | Office Clerks, General |
| Health Care and Social Assistance | Ophthalmic Medical Technicians |
| Health Care and Social Assistance | Ophthalmologists, Except Pediatric |
| Health Care and Social Assistance | Opticians, Dispensing |
| Health Care and Social Assistance | Optometrists |
| Health Care and Social Assistance | Oral and Maxillofacial Surgeons |
| Health Care and Social Assistance | Orderlies |
| Health Care and Social Assistance | Orthodontists |
| Health Care and Social Assistance | Orthopedic Surgeons, Except Pediatric |
| Health Care and Social Assistance | Orthotists and Prosthetists |
| Health Care and Social Assistance | Paramedics |
| Health Care and Social Assistance | Pediatric Surgeons |
| Health Care and Social Assistance | Pediatricians, General |
| Health Care and Social Assistance | Personal Care and Service Workers, All Other |
| Health Care and Social Assistance | Phlebotomists |
| Health Care and Social Assistance | Physical Therapist Aides |
| Health Care and Social Assistance | Physical Therapist Assistants |
| Health Care and Social Assistance | Physical Therapists |
| Health Care and Social Assistance | Physician Assistants |
| Health Care and Social Assistance | Physicians, All Other |
| Health Care and Social Assistance | Physicians, Pathologists |
| Health Care and Social Assistance | Podiatrists |
| Health Care and Social Assistance | Preschool Teachers, Except Special Education |
| Health Care and Social Assistance | Psychiatric Aides |
| Health Care and Social Assistance | Psychiatric Technicians |
| Health Care and Social Assistance | Psychiatrists |
| Health Care and Social Assistance | Radiation Therapists |
| Health Care and Social Assistance | Radiologic Technologists and Technicians |
| Health Care and Social Assistance | Radiologists |
| Health Care and Social Assistance | Receptionists and Information Clerks |
| Health Care and Social Assistance | Recreational Therapists |
| Health Care and Social Assistance | Registered Nurses |
| Health Care and Social Assistance | Rehabilitation Counselors |
| Health Care and Social Assistance | Residential Advisors |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Health Care and Social Assistance | Respiratory Therapists |
| Health Care and Social Assistance | Social and Community Service Managers |
| Health Care and Social Assistance | Social and Human Service Assistants |
| Health Care and Social Assistance | Speech-Language Pathologists |
| Health Care and Social Assistance | Surgeons, All Other |
| Health Care and Social Assistance | Surgical Assistants |
| Health Care and Social Assistance | Surgical Technologists |
| Health Care and Social Assistance | Switchboard Operators, Including Answering Service |
| Health Care and Social Assistance | Telephone Operators |
| Health Care and Social Assistance | Therapists, All Other |
| Arts, Entertainment, and Recreation | Agents and Business Managers of Artists, Performers, and Athletes |
| Arts, Entertainment, and Recreation | Amusement and Recreation Attendants |
| Arts, Entertainment, and Recreation | Athletes and Sports Competitors |
| Arts, Entertainment, and Recreation | Costume Attendants |
| Arts, Entertainment, and Recreation | Craft Artists |
| Arts, Entertainment, and Recreation | Curators |
| Arts, Entertainment, and Recreation | Dancers |
| Arts, Entertainment, and Recreation | Disc Jockeys, Except Radio |
| Arts, Entertainment, and Recreation | Entertainers and Performers, Sports and Related Workers, All Other |
| Arts, Entertainment, and Recreation | Entertainment and Recreation Managers, Except Gambling |
| Arts, Entertainment, and Recreation | Entertainment Attendants and Related Workers, All Other |
| Arts, Entertainment, and Recreation | Exercise Trainers and Group Fitness Instructors |
| Arts, Entertainment, and Recreation | Fine Artists, Including Painters, Sculptors, and Illustrators |
| Arts, Entertainment, and Recreation | First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services |
| Arts, Entertainment, and Recreation | Gambling and Sports Book Writers and Runners |
| Arts, Entertainment, and Recreation | Gambling Service Workers, All Other |
| Arts, Entertainment, and Recreation | Locker Room, Coatroom, and Dressing Room Attendants |
| Arts, Entertainment, and Recreation | Museum Technicians and Conservators |
| Arts, Entertainment, and Recreation | Set and Exhibit Designers |
| Arts, Entertainment, and Recreation | Umpires, Referees, and Other Sports Officials |
| Transportation and Warehousing | Aircraft Cargo Handling Supervisors |
| Transportation and Warehousing | Aircraft Mechanics and Service Technicians |
| Transportation and Warehousing | Aircraft Service Attendants |
| Transportation and Warehousing | Airfield Operations Specialists |
| Transportation and Warehousing | Airline Pilots, Copilots, and Flight Engineers |
| Transportation and Warehousing | Avionics Technicians |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Transportation and Warehousing | Bus and Truck Mechanics and Diesel Engine Specialists |
| Transportation and Warehousing | Captains, Mates, and Pilots of Water Vessels |
| Transportation and Warehousing | Cargo and Freight Agents |
| Transportation and Warehousing | Commercial Pilots |
| Transportation and Warehousing | Conveyor Operators and Tenders |
| Transportation and Warehousing | Couriers and Messengers |
| Transportation and Warehousing | Dispatchers, Except Police, Fire, and Ambulance |
| Transportation and Warehousing | Electrical and Electronics Installers and Repairers, Transportation Equipment |
| Transportation and Warehousing | Flight Attendants |
| Transportation and Warehousing | Gas Compressor and Gas Pumping Station Operators |
| Transportation and Warehousing | Heavy and Tractor-Trailer Truck Drivers |
| Transportation and Warehousing | Industrial Truck and Tractor Operators |
| Transportation and Warehousing | Laborers and Freight, Stock, and Material Movers, Hand |
| Transportation and Warehousing | Light Truck Drivers |
| Transportation and Warehousing | Locomotive Engineers |
| Transportation and Warehousing | Material Moving Workers, All Other |
| Transportation and Warehousing | Motorboat Operators |
| Transportation and Warehousing | Passenger Attendants |
| Transportation and Warehousing | Rail Car Repairers |
| Transportation and Warehousing | Rail Transportation Workers, All Other |
| Transportation and Warehousing | Rail Yard Engineers, Dinkey Operators, and Hostlers |
| Transportation and Warehousing | Rail-Track Laying and Maintenance Equipment Operators |
| Transportation and Warehousing | Railroad Brake, Signal, and Switch Operators and Locomotive Firers |
| Transportation and Warehousing | Railroad Conductors and Yardmasters |
| Transportation and Warehousing | Reservation and Transportation Ticket Agents and Travel Clerks |
| Transportation and Warehousing | Sailors and Marine Oilers |
| Transportation and Warehousing | Ship Engineers |
| Transportation and Warehousing | Shuttle Drivers and Chauffeurs |
| Transportation and Warehousing | Signal and Track Switch Repairers |
| Transportation and Warehousing | Tank Car, Truck, and Ship Loaders |
| Transportation and Warehousing | Transportation Workers, All Other |
| Transportation and Warehousing | Transportation, Storage, and Distribution Managers |
| Transportation and Warehousing | Weighers, Measurers, Checkers, and Samplers, Recordkeeping |
| Professional, Scientific, and Technical Services | Accountants and Auditors |
| Professional, Scientific, and Technical Services | Advertising and Promotions Managers |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Professional, Scientific, and Technical Services | Agricultural Technicians |
| Professional, Scientific, and Technical Services | Animal Scientists |
| Professional, Scientific, and Technical Services | Anthropologists and Archeologists |
| Professional, Scientific, and Technical Services | Arbitrators, Mediators, and Conciliators |
| Professional, Scientific, and Technical Services | Architects, Except Landscape and Naval |
| Professional, Scientific, and Technical Services | Architectural and Civil Drafters |
| Professional, Scientific, and Technical Services | Architectural and Engineering Managers |
| Professional, Scientific, and Technical Services | Art Directors |
| Professional, Scientific, and Technical Services | Astronomers |
| Professional, Scientific, and Technical Services | Atmospheric and Space Scientists |
| Professional, Scientific, and Technical Services | Biochemists and Biophysicists |
| Professional, Scientific, and Technical Services | Bioengineers and Biomedical Engineers |
| Professional, Scientific, and Technical Services | Biological Technicians |
| Professional, Scientific, and Technical Services | Bookkeeping, Accounting, and Auditing Clerks |
| Professional, Scientific, and Technical Services | Calibration Technologists and Technicians |
| Professional, Scientific, and Technical Services | Chief Executives |
| Professional, Scientific, and Technical Services | Civil Engineering Technologists and Technicians |
| Professional, Scientific, and Technical Services | Civil Engineers |
| Professional, Scientific, and Technical Services | Computer and Information Research Scientists |
| Professional, Scientific, and Technical Services | Computer and Information Systems Managers |
| Professional, Scientific, and Technical Services | Computer Hardware Engineers |
| Professional, Scientific, and Technical Services | Computer Network Architects |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Professional, Scientific, and Technical Services | Computer Network Support Specialists |
| Professional, Scientific, and Technical Services | Computer Occupations, All Other |
| Professional, Scientific, and Technical Services | Computer Programmers |
| Professional, Scientific, and Technical Services | Computer Systems Analysts |
| Professional, Scientific, and Technical Services | Computer User Support Specialists |
| Professional, Scientific, and Technical Services | Data Scientists |
| Professional, Scientific, and Technical Services | Database Administrators |
| Professional, Scientific, and Technical Services | Database Architects |
| Professional, Scientific, and Technical Services | Demonstrators and Product Promoters |
| Professional, Scientific, and Technical Services | Electrical and Electronics Drafters |
| Professional, Scientific, and Technical Services | Engineering Technologists and Technicians, Except Drafters, All Other |
| Professional, Scientific, and Technical Services | Engineers, All Other |
| Professional, Scientific, and Technical Services | Environmental Engineering Technologists and Technicians |
| Professional, Scientific, and Technical Services | Environmental Engineers |
| Professional, Scientific, and Technical Services | Environmental Science and Protection Technicians, Including Health |
| Professional, Scientific, and Technical Services | File Clerks |
| Professional, Scientific, and Technical Services | Geological Technicians, Except Hydrologic Technicians |
| Professional, Scientific, and Technical Services | Geoscientists, Except Hydrologists and Geographers |
| Professional, Scientific, and Technical Services | Graphic Designers |
| Professional, Scientific, and Technical Services | Human Resources Managers |
| Professional, Scientific, and Technical Services | Information Security Analysts |
| Professional, Scientific, and Technical Services | Interior Designers |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Professional, Scientific, and Technical Services | Interpreters and Translators |
| Professional, Scientific, and Technical Services | Landscape Architects |
| Professional, Scientific, and Technical Services | Lawyers |
| Professional, Scientific, and Technical Services | Legal Secretaries and Administrative Assistants |
| Professional, Scientific, and Technical Services | Life Scientists, All Other |
| Professional, Scientific, and Technical Services | Life, Physical, and Social Science Technicians, All Other |
| Professional, Scientific, and Technical Services | Management Analysts |
| Professional, Scientific, and Technical Services | Marine Engineers and Naval Architects |
| Professional, Scientific, and Technical Services | Market Research Analysts and Marketing Specialists |
| Professional, Scientific, and Technical Services | Marketing Managers |
| Professional, Scientific, and Technical Services | Materials Scientists |
| Professional, Scientific, and Technical Services | Mathematical Science Occupations, All Other |
| Professional, Scientific, and Technical Services | Medical Scientists, Except Epidemiologists |
| Professional, Scientific, and Technical Services | Microbiologists |
| Professional, Scientific, and Technical Services | Mining and Geological Engineers, Including Mining Safety Engineers |
| Professional, Scientific, and Technical Services | Natural Sciences Managers |
| Professional, Scientific, and Technical Services | Network and Computer Systems Administrators |
| Professional, Scientific, and Technical Services | Operations Research Analysts |
| Professional, Scientific, and Technical Services | Paperhangers |
| Professional, Scientific, and Technical Services | Paralegals and Legal Assistants |
| Professional, Scientific, and Technical Services | Payroll and Timekeeping Clerks |
| Professional, Scientific, and Technical Services | Photographers |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Professional, Scientific, and Technical Services | Photographic Process Workers and Processing Machine Operators |
| Professional, Scientific, and Technical Services | Physicists |
| Professional, Scientific, and Technical Services | Project Management Specialists |
| Professional, Scientific, and Technical Services | Public Relations Managers |
| Professional, Scientific, and Technical Services | Public Relations Specialists |
| Professional, Scientific, and Technical Services | Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel |
| Professional, Scientific, and Technical Services | Sociologists |
| Professional, Scientific, and Technical Services | Software Developers |
| Professional, Scientific, and Technical Services | Software Quality Assurance Analysts and Testers |
| Professional, Scientific, and Technical Services | Soil and Plant Scientists |
| Professional, Scientific, and Technical Services | Statistical Assistants |
| Professional, Scientific, and Technical Services | Statisticians |
| Professional, Scientific, and Technical Services | Survey Researchers |
| Professional, Scientific, and Technical Services | Surveying and Mapping Technicians |
| Professional, Scientific, and Technical Services | Surveyors |
| Professional, Scientific, and Technical Services | Tax Preparers |
| Professional, Scientific, and Technical Services | Technical Writers |
| Professional, Scientific, and Technical Services | Title Examiners, Abstractors, and Searchers |
| Professional, Scientific, and Technical Services | Training and Development Managers |
| Professional, Scientific, and Technical Services | Veterinarians |
| Professional, Scientific, and Technical Services | Veterinary Assistants and Laboratory Animal Caretakers |
| Professional, Scientific, and Technical Services | Veterinary Technologists and Technicians |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Professional, Scientific, and Technical Services | Web and Digital Interface Designers |
| Professional, Scientific, and Technical Services | Web Developers |
| Professional, Scientific, and Technical Services | Writers and Authors |
| Accommodation and Food Services | Baggage Porters and Bellhops |
| Accommodation and Food Services | Bartenders |
| Accommodation and Food Services | Chefs and Head Cooks |
| Accommodation and Food Services | Cooks, All Other |
| Accommodation and Food Services | Cooks, Fast Food |
| Accommodation and Food Services | Cooks, Restaurant |
| Accommodation and Food Services | Cooks, Short Order |
| Accommodation and Food Services | Dining Room and Cafeteria Attendants and Bartender Helpers |
| Accommodation and Food Services | Dishwashers |
| Accommodation and Food Services | Driver/Sales Workers |
| Accommodation and Food Services | Fast Food and Counter Workers |
| Accommodation and Food Services | First-Line Supervisors of Food Preparation and Serving Workers |
| Accommodation and Food Services | First-Line Supervisors of Gambling Services Workers |
| Accommodation and Food Services | Food Preparation and Serving Related Workers, All Other |
| Accommodation and Food Services | Food Preparation Workers |
| Accommodation and Food Services | Food Service Managers |
| Accommodation and Food Services | Gambling Dealers |
| Accommodation and Food Services | Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop |
| Accommodation and Food Services | Hotel, Motel, and Resort Desk Clerks |
| Accommodation and Food Services | Lodging Managers |
| Accommodation and Food Services | Maids and Housekeeping Cleaners |
| Accommodation and Food Services | Waiters and Waitresses |
| Other Services Except Public Administration | Animal Caretakers |
| Other Services Except Public Administration | Automotive Body and Related Repairers |
| Other Services Except Public Administration | Automotive Glass Installers and Repairers |
| Other Services Except Public Administration | Barbers |
| Other Services Except Public Administration | Camera and Photographic Equipment Repairers |
| Other Services Except Public Administration | Cleaners of Vehicles and Equipment |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Other Services Except Public Administration | Clergy |
| Other Services Except Public Administration | Cooks, Private Household |
| Other Services Except Public Administration | Crematory Operators |
| Other Services Except Public Administration | Directors, Religious Activities and Education |
| Other Services Except Public Administration | Embalmers |
| Other Services Except Public Administration | First-Line Supervisors of Mechanics, Installers, and Repairers |
| Other Services Except Public Administration | First-Line Supervisors of Personal Service Workers |
| Other Services Except Public Administration | Fundraisers |
| Other Services Except Public Administration | Fundraising Managers |
| Other Services Except Public Administration | Funeral Attendants |
| Other Services Except Public Administration | Funeral Home Managers |
| Other Services Except Public Administration | Hairdressers, Hairstylists, and Cosmetologists |
| Other Services Except Public Administration | Home Appliance Repairers |
| Other Services Except Public Administration | Labor Relations Specialists |
| Other Services Except Public Administration | Laundry and Dry-Cleaning Workers |
| Other Services Except Public Administration | Manicurists and Pedicurists |
| Other Services Except Public Administration | Massage Therapists |
| Other Services Except Public Administration | Meeting, Convention, and Event Planners |
| Other Services Except Public Administration | Morticians, Undertakers, and Funeral Arrangers |
| Other Services Except Public Administration | Music Directors and Composers |
| Other Services Except Public Administration | Musicians and Singers |
| Other Services Except Public Administration | Parking Attendants |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Other Services Except Public Administration | Personal Service Managers, All Other |
| Other Services Except Public Administration | Precision Instrument and Equipment Repairers, All Other |
| Other Services Except Public Administration | Pressers, Textile, Garment, and Related Materials |
| Other Services Except Public Administration | Religious Workers, All Other |
| Other Services Except Public Administration | Shampooers |
| Other Services Except Public Administration | Skincare Specialists |
| Information | Actors |
| Information | Advertising Sales Agents |
| Information | Audio and Video Technicians |
| Information | Broadcast Announcers and Radio Disc Jockeys |
| Information | Broadcast Technicians |
| Information | Camera Operators, Television, Video, and Film |
| Information | Desktop Publishers |
| Information | Door-to-Door Sales Workers, News and Street Vendors, and Related Workers |
| Information | Editors |
| Information | Film and Video Editors |
| Information | Lighting Technicians |
| Information | Makeup Artists, Theatrical and Performance |
| Information | Media and Communication Equipment Workers, All Other |
| Information | Media and Communication Workers, All Other |
| Information | Motion Picture Projectionists |
| Information | News Analysts, Reporters, and Journalists |
| Information | Producers and Directors |
| Information | Proofreaders and Copy Markers |
| Information | Radio, Cellular, and Tower Equipment Installers and Repairers |
| Information | Sound Engineering Technicians |
| Information | Special Effects Artists and Animators |
| Information | Telecommunications Equipment Installers and Repairers, Except Line Installers |
| Information | Telecommunications Line Installers and Repairers |
| Information | Ushers, Lobby Attendants, and Ticket Takers |
| Manufacturing | Adhesive Bonding Machine Operators and Tenders |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Manufacturing | Aerospace Engineering and Operations Technologists and Technicians |
| Manufacturing | Aerospace Engineers |
| Manufacturing | Aircraft Structure, Surfaces, Rigging, and Systems Assemblers |
| Manufacturing | Bakers |
| Manufacturing | Cabinetmakers and Bench Carpenters |
| Manufacturing | Chemical Engineers |
| Manufacturing | Chemical Equipment Operators and Tenders |
| Manufacturing | Chemical Plant and System Operators |
| Manufacturing | Chemical Technicians |
| Manufacturing | Chemists |
| Manufacturing | Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders |
| Manufacturing | Coating, Painting, and Spraying Machine Setters, Operators, and Tenders |
| Manufacturing | Coil Winders, Tapers, and Finishers |
| Manufacturing | Commercial and Industrial Designers |
| Manufacturing | Computer Numerically Controlled Tool Operators |
| Manufacturing | Computer Numerically Controlled Tool Programmers |
| Manufacturing | Cooling and Freezing Equipment Operators and Tenders |
| Manufacturing | Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders |
| Manufacturing | Cutters and Trimmers, Hand |
| Manufacturing | Cutting and Slicing Machine Setters, Operators, and Tenders |
| Manufacturing | Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Dental Laboratory Technicians |
| Manufacturing | Drafters, All Other |
| Manufacturing | Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Electrical and Electronic Engineering Technologists and Technicians |
| Manufacturing | Electrical and Electronics Repairers, Commercial and Industrial Equipment |
| Manufacturing | Electrical Engineers |
| Manufacturing | Electro-Mechanical and Mechatronics Technologists and Technicians |
| Manufacturing | Electronics Engineers, Except Computer |
| Manufacturing | Engine and Other Machine Assemblers |
| Manufacturing | Etchers and Engravers |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Manufacturing | Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers |
| Manufacturing | Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders |
| Manufacturing | Fabric and Apparel Patternmakers |
| Manufacturing | Fiberglass Laminators and Fabricators |
| Manufacturing | First-Line Supervisors of Production and Operating Workers |
| Manufacturing | Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders |
| Manufacturing | Food Batchmakers |
| Manufacturing | Food Cooking Machine Operators and Tenders |
| Manufacturing | Food Processing Workers, All Other |
| Manufacturing | Food Science Technicians |
| Manufacturing | Food Scientists and Technologists |
| Manufacturing | Forging Machine Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Foundry Mold and Coremakers |
| Manufacturing | Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders |
| Manufacturing | Furniture Finishers |
| Manufacturing | Grinding and Polishing Workers, Hand |
| Manufacturing | Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Health and Safety Engineers, Except Mining Safety Engineers and Inspectors |
| Manufacturing | Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Helpers--Production Workers |
| Manufacturing | Industrial Engineering Technologists and Technicians |
| Manufacturing | Industrial Engineers |
| Manufacturing | Industrial Machinery Mechanics |
| Manufacturing | Industrial Production Managers |
| Manufacturing | Inspectors, Testers, Sorters, Samplers, and Weighers |
| Manufacturing | Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Layout Workers, Metal and Plastic |
| Manufacturing | Log Graders and Scalers |
| Manufacturing | Logisticians |
| Manufacturing | Machine Feeders and Offbearers |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Manufacturing | Machinists |
| Manufacturing | Maintenance Workers, Machinery |
| Manufacturing | Materials Engineers |
| Manufacturing | Meat, Poultry, and Fish Cutters and Trimmers |
| Manufacturing | Mechanical Drafters |
| Manufacturing | Mechanical Engineering Technologists and Technicians |
| Manufacturing | Mechanical Engineers |
| Manufacturing | Medical Appliance Technicians |
| Manufacturing | Metal Workers and Plastic Workers, All Other |
| Manufacturing | Metal-Refining Furnace Operators and Tenders |
| Manufacturing | Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Mixing and Blending Machine Setters, Operators, and Tenders |
| Manufacturing | Model Makers, Metal and Plastic |
| Manufacturing | Molders, Shapers, and Casters, Except Metal and Plastic |
| Manufacturing | Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Occupational Health and Safety Technicians |
| Manufacturing | Ophthalmic Laboratory Technicians |
| Manufacturing | Packaging and Filling Machine Operators and Tenders |
| Manufacturing | Painting, Coating, and Decorating Workers |
| Manufacturing | Paper Goods Machine Setters, Operators, and Tenders |
| Manufacturing | Patternmakers, Metal and Plastic |
| Manufacturing | Patternmakers, Wood |
| Manufacturing | Petroleum Pump System Operators, Refinery Operators, and Gaugers |
| Manufacturing | Plant and System Operators, All Other |
| Manufacturing | Plating Machine Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Pourers and Casters, Metal |
| Manufacturing | Prepress Technicians and Workers |
| Manufacturing | Print Binding and Finishing Workers |
| Manufacturing | Printing Press Operators |
| Manufacturing | Production Workers, All Other |
| Manufacturing | Production, Planning, and Expediting Clerks |
| Manufacturing | Purchasing Managers |
| Manufacturing | Refractory Materials Repairers, Except Brickmasons |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Manufacturing | Rolling Machine Setters, Operators, and Tenders, Metal and Plastic |
| Manufacturing | Sawing Machine Setters, Operators, and Tenders, Wood |
| Manufacturing | Semiconductor Processing Technicians |
| Manufacturing | Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders |
| Manufacturing | Sewers, Hand |
| Manufacturing | Sewing Machine Operators |
| Manufacturing | Shipping, Receiving, and Inventory Clerks |
| Manufacturing | Shoe and Leather Workers and Repairers |
| Manufacturing | Shoe Machine Operators and Tenders |
| Manufacturing | Slaughterers and Meat Packers |
| Manufacturing | Structural Metal Fabricators and Fitters |
| Manufacturing | Textile Bleaching and Dyeing Machine Operators and Tenders |
| Manufacturing | Textile Cutting Machine Setters, Operators, and Tenders |
| Manufacturing | Textile Knitting and Weaving Machine Setters, Operators, and Tenders |
| Manufacturing | Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders |
| Manufacturing | Textile, Apparel, and Furnishings Workers, All Other |
| Manufacturing | Timing Device Assemblers and Adjusters |
| Manufacturing | Tire Builders |
| Manufacturing | Tool and Die Makers |
| Manufacturing | Tool Grinders, Filers, and Sharpeners |
| Manufacturing | Upholsterers |
| Manufacturing | Welders, Cutters, Solderers, and Brazers |
| Manufacturing | Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders |
| Manufacturing | Woodworkers, All Other |
| Manufacturing | Woodworking Machine Setters, Operators, and Tenders, Except Sawing |
| Construction | Boilermakers |
| Construction | Brickmasons and Blockmasons |
| Construction | Carpenters |
| Construction | Carpet Installers |
| Construction | Cement Masons and Concrete Finishers |
| Construction | Construction Laborers |
| Construction | Construction Managers |
| Construction | Cost Estimators |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Construction | Crane and Tower Operators |
| Construction | Dredge Operators |
| Construction | Drywall and Ceiling Tile Installers |
| Construction | Earth Drillers, Except Oil and Gas |
| Construction | Electricians |
| Construction | Elevator and Escalator Installers and Repairers |
| Construction | Fence Erectors |
| Construction | First-Line Supervisors of Construction Trades and Extraction Workers |
| Construction | Floor Layers, Except Carpet, Wood, and Hard Tiles |
| Construction | Floor Sanders and Finishers |
| Construction | Glaziers |
| Construction | Heating, Air Conditioning, and Refrigeration Mechanics and Installers |
| Construction | Helpers, Construction Trades, All Other |
| Construction | Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters |
| Construction | Helpers--Carpenters |
| Construction | Helpers--Electricians |
| Construction | Helpers--Installation, Maintenance, and Repair Workers |
| Construction | Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons |
| Construction | Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters |
| Construction | Helpers--Roofers |
| Construction | Hoist and Winch Operators |
| Construction | Insulation Workers, Floor, Ceiling, and Wall |
| Construction | Insulation Workers, Mechanical |
| Construction | Mechanical Door Repairers |
| Construction | Millwrights |
| Construction | Operating Engineers and Other Construction Equipment Operators |
| Construction | Painters, Construction and Maintenance |
| Construction | Paving, Surfacing, and Tamping Equipment Operators |
| Construction | Pile Driver Operators |
| Construction | Pipelayers |
| Construction | Plasterers and Stucco Masons |
| Construction | Plumbers, Pipefitters, and Steamfitters |
| Construction | Reinforcing Iron and Rebar Workers |
| Construction | Riggers |
| Construction | Roofers |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Construction | Sheet Metal Workers |
| Construction | Solar Photovoltaic Installers |
| Construction | Stonemasons |
| Construction | Structural Iron and Steel Workers |
| Construction | Tapers |
| Construction | Terrazzo Workers and Finishers |
| Construction | Tile and Stone Setters |
| Utilities | Control and Valve Installers and Repairers, Except Mechanical Door |
| Utilities | Electrical and Electronics Repairers, Powerhouse, Substation, and Relay |
| Utilities | Electrical Power-Line Installers and Repairers |
| Utilities | Gas Plant Operators |
| Utilities | Nuclear Engineers |
| Utilities | Nuclear Power Reactor Operators |
| Utilities | Nuclear Technicians |
| Utilities | Power Distributors and Dispatchers |
| Utilities | Power Plant Operators |
| Utilities | Wind Turbine Service Technicians |
| Management of Companies and Enterprises | Compensation and Benefits Managers |
| Mining, Quarrying, and Oil and Gas Extraction | Continuous Mining Machine Operators |
| Mining, Quarrying, and Oil and Gas Extraction | Derrick Operators, Oil and Gas |
| Mining, Quarrying, and Oil and Gas Extraction | Excavating and Loading Machine and Dragline Operators, Surface Mining |
| Mining, Quarrying, and Oil and Gas Extraction | Extraction Workers, All Other |
| Mining, Quarrying, and Oil and Gas Extraction | Helpers--Extraction Workers |
| Mining, Quarrying, and Oil and Gas Extraction | Loading and Moving Machine Operators, Underground Mining |
| Mining, Quarrying, and Oil and Gas Extraction | Petroleum Engineers |
| Mining, Quarrying, and Oil and Gas Extraction | Pump Operators, Except Wellhead Pumpers |
| Mining, Quarrying, and Oil and Gas Extraction | Rock Splitters, Quarry |
| Mining, Quarrying, and Oil and Gas Extraction | Roof Bolters, Mining |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Mining, Quarrying, and Oil and Gas Extraction | Rotary Drill Operators, Oil and Gas |
| Mining, Quarrying, and Oil and Gas Extraction | Roustabouts, Oil and Gas |
| Mining, Quarrying, and Oil and Gas Extraction | Service Unit Operators, Oil and Gas |
| Mining, Quarrying, and Oil and Gas Extraction | Underground Mining Machine Operators, All Other |
| Mining, Quarrying, and Oil and Gas Extraction | Wellhead Pumpers |
| Government | Administrative Law Judges, Adjudicators, and Hearing Officers |
| Government | Administrative Services Managers |
| Government | Agricultural Engineers |
| Government | Agricultural Inspectors |
| Government | Air Traffic Controllers |
| Government | Animal Control Workers |
| Government | Artists and Related Workers, All Other |
| Government | Bailiffs |
| Government | Biological Scientists, All Other |
| Government | Bridge and Lock Tenders |
| Government | Budget Analysts |
| Government | Bus Drivers, Transit and Intercity |
| Government | Business Operations Specialists, All Other |
| Government | Cartographers and Photogrammetrists |
| Government | Child, Family, and School Social Workers |
| Government | Communications Equipment Operators, All Other |
| Government | Community and Social Service Specialists, All Other |
| Government | Compliance Officers |
| Government | Conservation Scientists |
| Government | Construction and Building Inspectors |
| Government | Correctional Officers and Jailers |
| Government | Court Reporters and Simultaneous Captioners |
| Government | Court, Municipal, and License Clerks |
| Government | Detectives and Criminal Investigators |
| Government | Economists |
| Government | Eligibility Interviewers, Government Programs |
| Government | Emergency Management Directors |
| Government | Environmental Scientists and Specialists, Including Health |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Government | Epidemiologists |
| Government | Explosives Workers, Ordnance Handling Experts, and Blasters |
| Government | Fire Inspectors and Investigators |
| Government | Firefighters |
| Government | First-Line Supervisors of Correctional Officers |
| Government | First-Line Supervisors of Firefighting and Prevention Workers |
| Government | First-Line Supervisors of Police and Detectives |
| Government | First-Line Supervisors of Protective Service Workers, All Other |
| Government | Fish and Game Wardens |
| Government | Forensic Science Technicians |
| Government | Forest and Conservation Technicians |
| Government | Forest and Conservation Workers |
| Government | Forest Fire Inspectors and Prevention Specialists |
| Government | Foresters |
| Government | Gambling Cage Workers |
| Government | Gambling Change Persons and Booth Cashiers |
| Government | Gambling Managers |
| Government | Gambling Surveillance Officers and Gambling Investigators |
| Government | Geographers |
| Government | Healthcare Diagnosing or Treating Practitioners, All Other |
| Government | Highway Maintenance Workers |
| Government | Historians |
| Government | Human Resources Assistants, Except Payroll and Timekeeping |
| Government | Hydrologic Technicians |
| Government | Hydrologists |
| Government | Information and Record Clerks, All Other |
| Government | Judges, Magistrate Judges, and Magistrates |
| Government | Judicial Law Clerks |
| Government | Legal Support Workers, All Other |
| Government | Legislators |
| Government | Library Assistants, Clerical |
| Government | Library Technicians |
| Government | Lifeguards, Ski Patrol, and Other Recreation-al Protective Service Workers |
| Government | Managers, All Other |
| Government | Mathematicians |
| Government | Meter Readers, Utilities |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Government | Occupational Health and Safety Specialists |
| Government | Parking Enforcement Workers |
| Government | Physical Scientists, All Other |
| Government | Police and Sheriff's Patrol Officers |
| Government | Political Scientists |
| Government | Postal Service Clerks |
| Government | Postal Service Mail Carriers |
| Government | Postal Service Mail Sorters, Processors, and Processing Machine Operators |
| Government | Postmasters and Mail Superintendents |
| Government | Probation Officers and Correctional Treatment Specialists |
| Government | Procurement Clerks |
| Government | Psychologists, All Other |
| Government | Public Safety Telecommunicators |
| Government | Recreation Workers |
| Government | Social Scientists and Related Workers, All Other |
| Government | Social Workers, All Other |
| Government | Stationary Engineers and Boiler Operators |
| Government | Subway and Streetcar Operators |
| Government | Tax Examiners and Collectors, and Revenue Agents |
| Government | Traffic Technicians |
| Government | Transit and Railroad Police |
| Government | Transportation Inspectors |
| Government | Transportation Security Screeners |
| Government | Urban and Regional Planners |
| Government | Water and Wastewater Treatment Plant and System Operators |
| Government | Word Processors and Typists |
| Government | Zoologists and Wildlife Biologists |
| Agriculture, Forestry, Fishing, and Hunting | Agricultural Equipment Operators |
| Agriculture, Forestry, Fishing, and Hunting | Agricultural Workers, All Other |
| Agriculture, Forestry, Fishing, and Hunting | Animal Breeders |
| Agriculture, Forestry, Fishing, and Hunting | Animal Trainers |
| Agriculture, Forestry, Fishing, and Hunting | Fallers |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Agriculture, Forestry, Fishing, and Hunting | Farm Labor Contractors |
| Agriculture, Forestry, Fishing, and Hunting | Farmers, Ranchers, and Other Agricultural Managers |
| Agriculture, Forestry, Fishing, and Hunting | Farmworkers and Laborers, Crop, Nursery, and Greenhouse |
| Agriculture, Forestry, Fishing, and Hunting | Farmworkers, Farm, Ranch, and Aquacultural Animals |
| Agriculture, Forestry, Fishing, and Hunting | First-Line Supervisors of Farming, Fishing, and Forestry Workers |
| Agriculture, Forestry, Fishing, and Hunting | Graders and Sorters, Agricultural Products |
| Agriculture, Forestry, Fishing, and Hunting | Logging Equipment Operators |
| Agriculture, Forestry, Fishing, and Hunting | Logging Workers, All Other |
| Administrative and Support Services | Bill and Account Collectors |
| Administrative and Support Services | Building Cleaning Workers, All Other |
| Administrative and Support Services | Commercial Divers |
| Administrative and Support Services | Crossing Guards and Flaggers |
| Administrative and Support Services | Data Entry Keyers |
| Administrative and Support Services | First-Line Supervisors of Housekeeping and Janitorial Workers |
| Administrative and Support Services | First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers |
| Administrative and Support Services | First-Line Supervisors of Security Workers |
| Administrative and Support Services | Grounds Maintenance Workers, All Other |
| Administrative and Support Services | Hazardous Materials Removal Workers |
| Administrative and Support Services | Human Resources Specialists |
| Administrative and Support Services | Installation, Maintenance, and Repair Workers, All Other |
| Administrative and Support Services | Janitors and Cleaners, Except Maids and Housekeeping Cleaners |
| Administrative and Support Services | Landscaping and Groundskeeping Workers |
| Administrative and Support Services | Locksmiths and Safe Repairers |
| Administrative and Support Services | Mail Clerks and Mail Machine Operators, Except Postal Service |
| Administrative and Support Services | Office Machine Operators, Except Computer |
| Administrative and Support Services | Pest Control Workers |
| Administrative and Support Services | Pesticide Handlers, Sprayers, and Applicators, Vegetation |
| Administrative and Support Services | Private Detectives and Investigators |
| Administrative and Support Services | Refuse and Recyclable Material Collectors |
| Administrative and Support Services | Security and Fire Alarm Systems Installers |
| Administrative and Support Services | Security Guards |

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*Table A1. Industry of Occupations (cont'd.)*

| Industry | Occupation |
|---|---|
| Administrative and Support Services | Septic Tank Servicers and Sewer Pipe Cleaners |
| Administrative and Support Services | Telemarketers |
| Administrative and Support Services | Travel Agents |
| Administrative and Support Services | Tree Trimmers and Pruners |

## 7b. Skill and Skill Impact Score Table

*Table A2. Skill-level Scores*

| Technology Skill | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Access software | 0.775 | 0.500 | 0.275 |
| Accounting software | 0.825 | 0.500 | 0.325 |
| Action games | 0.775 | 0.450 | 0.325 |
| Administration software | 0.775 | 0.500 | 0.275 |
| Analytical or scientific software | 0.850 | 0.550 | 0.300 |
| Application server software | 0.725 | 0.475 | 0.250 |
| Audit software | 0.775 | 0.450 | 0.325 |
| Authentication server software | 0.825 | 0.450 | 0.375 |
| Aviation ground support software | 0.775 | 0.350 | 0.425 |
| Backup or archival software | 0.775 | 0.225 | 0.550 |
| Bar coding software | 0.800 | 0.325 | 0.475 |
| Bridge software | 0.675 | 0.250 | 0.425 |
| Business intelligence and data analysis software | 0.825 | 0.650 | 0.175 |
| Calendar and scheduling software | 0.825 | 0.375 | 0.450 |
| Categorization or classification software | 0.825 | 0.500 | 0.325 |
| Charting software | 0.750 | 0.400 | 0.350 |
| Cloud-based data access and sharing software | 0.750 | 0.425 | 0.325 |
| Cloud-based management software | 0.825 | 0.425 | 0.400 |
| Cloud-based protection or security software | 0.825 | 0.475 | 0.350 |
| Clustering software | 0.700 | 0.400 | 0.300 |
| Communications server software | 0.700 | 0.450 | 0.250 |
| Compiler and decompiler software | 0.800 | 0.500 | 0.300 |
| Compliance software | 0.800 | 0.450 | 0.350 |
| Computer aided design CAD and computer aided manufacturing CAM system | 0.775 | 0.400 | 0.375 |
| Computer aided design CAD software | 0.825 | 0.500 | 0.325 |

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*Table A2. Skill-level Scores (cont'd.)*

| Technology Skill | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Computer aided manufacturing CAM software | 0.825 | 0.500 | 0.325 |
| Computer based training software | 0.825 | 0.500 | 0.325 |
| Computer imaging software | 0.775 | 0.400 | 0.375 |
| Configuration management software | 0.825 | 0.500 | 0.325 |
| Contact center software | 0.775 | 0.450 | 0.325 |
| Content workflow software | 0.775 | 0.500 | 0.275 |
| Customer relationship management CRM software | 0.775 | 0.400 | 0.375 |
| database management system software | 0.825 | 0.550 | 0.275 |
| database reporting software | 0.775 | 0.500 | 0.275 |
| database user interface and query software | 0.825 | 0.450 | 0.375 |
| Data compression software | 0.775 | 0.250 | 0.525 |
| Data conversion software | 0.825 | 0.475 | 0.350 |
| Data mining software | 0.875 | 0.600 | 0.275 |
| Desktop communications software | 0.750 | 0.500 | 0.250 |
| Desktop publishing software | 0.725 | 0.450 | 0.275 |
| Development environment software | 0.875 | 0.525 | 0.350 |
| Device drivers or system software | 0.725 | 0.300 | 0.425 |
| Dictionary software | 0.825 | 0.400 | 0.425 |
| Document management software | 0.750 | 0.250 | 0.500 |
| Electronic mail software | 0.750 | 0.400 | 0.350 |
| Enterprise application integration software | 0.825 | 0.550 | 0.275 |
| Enterprise resource planning ERP software | 0.775 | 0.450 | 0.325 |
| Enterprise system management software | 0.725 | 0.450 | 0.275 |
| Expert system software | 0.850 | 0.400 | 0.450 |
| Facilities management software | 0.825 | 0.500 | 0.325 |
| Fax software | 0.300 | 0.055 | 0.245 |
| File versioning software | 0.750 | 0.425 | 0.325 |
| Filesystem software | 0.800 | 0.200 | 0.600 |
| Financial analysis software | 0.825 | 0.450 | 0.375 |
| Flight control software | 0.825 | 0.450 | 0.375 |
| Foreign language software | 0.775 | 0.475 | 0.300 |
| Gateway software | 0.700 | 0.400 | 0.300 |
| Geographic information system | 0.775 | 0.550 | 0.225 |
| Graphical user interface development software | 0.775 | 0.350 | 0.425 |
| Graphics card driver software | 0.700 | 0.250 | 0.450 |
| Graphics or photo imaging software | 0.875 | 0.525 | 0.350 |

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*Table A2. Skill-level Scores (cont'd.)*

| Technology Skill | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Helpdesk or call center software | 0.850 | 0.200 | 0.650 |
| Human resources software | 0.825 | 0.550 | 0.275 |
| Industrial control software | 0.850 | 0.400 | 0.450 |
| Information retrieval or search software | 0.900 | 0.800 | 0.100 |
| Instant messaging software | 0.675 | 0.375 | 0.300 |
| Interactive voice response software | 0.825 | 0.450 | 0.375 |
| Internet browser software | 0.775 | 0.400 | 0.375 |
| Internet directory services software | 0.700 | 0.225 | 0.475 |
| Internet protocol IP multimedia subsystem software | 0.700 | 0.450 | 0.250 |
| Inventory management software | 0.825 | 0.500 | 0.325 |
| LAN software | 0.600 | 0.175 | 0.425 |
| Label making software | 0.725 | 0.475 | 0.250 |
| Legal management software | 0.775 | 0.400 | 0.375 |
| Library software | 0.825 | 0.500 | 0.325 |
| License management software | 0.650 | 0.250 | 0.400 |
| Mailing and shipping software | 0.750 | 0.450 | 0.300 |
| Manufacturing execution system MES software | 0.750 | 0.450 | 0.300 |
| Map creation software | 0.825 | 0.450 | 0.375 |
| Materials requirements planning logistics and supply chain software | 0.750 | 0.300 | 0.450 |
| Medical software | 0.825 | 0.500 | 0.325 |
| Metadata management software | 0.825 | 0.500 | 0.325 |
| Mobile location based services software | 0.825 | 0.500 | 0.325 |
| Mobile messaging service software | 0.775 | 0.400 | 0.375 |
| Mobile operator specific application software | 0.750 | 0.450 | 0.300 |
| Multi-media educational software | 0.775 | 0.525 | 0.250 |
| Music or sound editing software | 0.825 | 0.475 | 0.350 |
| Network conferencing software | 0.775 | 0.400 | 0.375 |
| Network connectivity terminal emulation software | 0.775 | 0.250 | 0.525 |
| Network monitoring software | 0.825 | 0.500 | 0.325 |
| Network operating system enhancement software | 0.750 | 0.400 | 0.350 |
| Network operation system software | 0.750 | 0.375 | 0.375 |
| Network security and virtual private network VPN equipment software | 0.825 | 0.500 | 0.325 |
| Network security or virtual private network VPN management software | 0.775 | 0.550 | 0.225 |
| Object or component oriented development software | 0.825 | 0.550 | 0.275 |

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*Table A2. Skill-level Scores (cont'd.)*

| Technology Skill | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Object oriented database management software | 0.675 | 0.250 | 0.425 |
| Office suite software | 0.750 | 0.400 | 0.350 |
| Operating system software | 0.825 | 0.400 | 0.425 |
| Optical character reader OCR or scanning software | 0.900 | 0.550 | 0.350 |
| Optical network management software | 0.775 | 0.450 | 0.325 |
| Pattern design software | 0.775 | 0.400 | 0.375 |
| Platform interconnectivity software | 0.750 | 0.375 | 0.375 |
| Point of sale POS software | 0.750 | 0.450 | 0.300 |
| Portal server software | 0.625 | 0.250 | 0.375 |
| Presentation software | 0.750 | 0.425 | 0.325 |
| Printer driver software | 0.600 | 0.075 | 0.525 |
| Procedure management software | 0.700 | 0.325 | 0.375 |
| Process mapping and design software | 0.825 | 0.425 | 0.400 |
| Procurement software | 0.775 | 0.400 | 0.375 |
| Program testing software | 0.775 | 0.550 | 0.225 |
| Project management software | 0.750 | 0.450 | 0.300 |
| Requirements analysis and system architecture software | 0.725 | 0.450 | 0.275 |
| Risk management data and analysis software | 0.825 | 0.450 | 0.375 |
| Route navigation software | 0.825 | 0.500 | 0.325 |
| Sales and marketing software | 0.725 | 0.500 | 0.225 |
| Software defined networking/ virtualization software | 0.800 | 0.500 | 0.300 |
| Spell checkers | 0.900 | 0.200 | 0.700 |
| Spreadsheet software | 0.775 | 0.400 | 0.375 |
| Storage media loading software | 0.750 | 0.150 | 0.600 |
| Storage networking software | 0.800 | 0.425 | 0.375 |
| Switch or router software | 0.825 | 0.500 | 0.325 |
| Tax preparation software | 0.775 | 0.350 | 0.425 |
| Text to speech conversion software | 0.875 | 0.450 | 0.425 |
| Time accounting software | 0.775 | 0.300 | 0.475 |
| Transaction security and virus protection software | 0.775 | 0.300 | 0.475 |
| Transaction server software | 0.750 | 0.450 | 0.300 |
| Video conferencing software | 0.775 | 0.450 | 0.325 |
| Video creation and editing software | 0.825 | 0.450 | 0.375 |
| Voice recognition software | 0.825 | 0.450 | 0.375 |
| Voice synthesizer and recognition software | 0.825 | 0.500 | 0.325 |
| WAN switching software and firmware | 0.600 | 0.200 | 0.400 |

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*Table A2. Skill-level Scores (cont'd.)*

| Technology Skill | AI Disruption Score | AI Creation Score | AI Impact Score |
|---|---|---|---|
| Web page creation and editing software | 0.750 | 0.525 | 0.225 |
| Web platform development software | 0.825 | 0.500 | 0.325 |
| Wireless software | 0.725 | 0.450 | 0.275 |
| Word processing software | 0.825 | 0.375 | 0.450 |

## 7c. Occupation and (Skill, Skill Impact Score) Tables

***Table A3. Skill-level Scores for each Occupation (One Table for each Industry)***

***Table A3.1 Wholesale Trade***

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Electric Motor, Power Tool, and Related Repairers | 0.401 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275) |
| Farm Equipment Mechanics and Service Technicians | 0.202 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Facilities management software, 0.325) |
| Fashion Designers | 0.489 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Program testing software, 0.225) |
| First-Line Supervisors of Non-Retail Sales Workers | 0.501 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Enterprise application integration software, 0.275) |
| Medical Equipment Repairers | 0.332 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), |

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*Table A3.1 Wholesale Trade (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Video conferencing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Facilities management software, 0.325), (Medical software, 0.325) |
| Mobile Heavy Equipment Mechanics, Except Engines | 0.352 | (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Facilities management software, 0.325), (Project management software, 0.300) |
| Order Clerks | 0.468 | (Document management software, 0.500), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Procurement software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Enterprise system management software, 0.275) |
| Sales Engineers | 0.556 | (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Expert system software, 0.450), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Authentication server software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Web platform development software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Computer aided design CAD software, 0.325), (Switch or router software, 0.325), (Network monitoring software, 0.325), (Project management software, 0.300), (Access software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Administration software, 0.275), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (database manage<br><br>or component oriented development software, 0.275), (database management system software, 0.275), (Application server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Communications server software, 0.250), (Network security or virtual private network VPN management software, 0.225), (Business intelligence and data analysis software, 0.175 |
| Sales Managers | 0.538 | (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, |

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*Table A3.1 Wholesale Trade (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Web platform development software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Data mining software, 0.275), (Object or component oriented development software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 0.552 | (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Expert system software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Network conferencing software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Web platform development software, 0.325), (Medical software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Access software, 0.275), (database management system software, 0.275), (Data mining software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products | 0.548 | (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Network conferencing software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing |

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*Table A3.1 Wholesale Trade (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.325), (Accounting software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Access software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Internet protocol IP multimedia subsystem software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |

*Table A3.2 Retail Trade*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Audiovisual Equipment Installers and Repairers | 0.340 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Mobile location based services software, 0.325), (Analytical or scientific software, 0.300) |
| Automotive and Watercraft Service Attendants | 0.355 | (Time accounting software, 0.475), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Inventory management software, 0.325), (Point of sale POS software, 0.300) |
| Automotive Service Technicians and Mechanics | 0.513 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Facilities management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (database reporting software, 0.275), (Information retrieval or search software, 0.100) |
| Bicycle Repairers | 0.469 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Inventory management software, 0.325), (Point of sale POS software, 0.300) |
| Butchers and Meat Cutters | 0.239 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Accounting software, 0.325) |
| Cashiers | 0.601 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Accounting software, 0.325), (Medical software, 0.325), (Point of sale POS software, 0.300) |
| Coin, Vending, and Amusement Machine Servicers and Repairers | 0.427 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325) |

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*Table A3.2 Retail Trade (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Computer, Automated Teller, and Office Machine Repairers | 0.500 | (Helpdesk or call center software, 0.650), (Network connectivity terminal emulation software, 0.525), (Document management software, 0.500), (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Platform interconnectivity software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Video conferencing software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Inventory management software, 0.325), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Program testing software, 0.225), (Network security or virtual private network VPN management software, 0.225) |
| Electronic Equipment Installers and Repairers, Motor Vehicles | 0.281 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300) |
| First-Line Supervisors of Retail Sales Workers | 0.516 | (Document management software, 0.500), (Time accounting software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Inventory management software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Point of sale POS software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Floral Designers | 0.376 | (Time accounting software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Procurement software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| General and Operations Managers | 0.315 | (Backup or archival software, 0.550), (Document management software, 0.500), (Time accounting software, 0.475), (Transaction security and virus protection software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Object oriented database management software, 0.425), (Operating system |

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*Table A3.2 Retail Trade (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Video creation and editing software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Configuration management software, 0.325), (Metadata management software, 0.325), (Computer aided design CAD software, 0.325), (Network monitoring software, 0.325), (Facilities management software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Point of sale POS software, 0.300), (Instant messaging software, 0.300), (Transaction server software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (Content workflow software, 0.275), (Access software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (Data mining software, 0.275), (Enterprise application integration software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Communications server software, 0.250), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Hearing Aid Specialists | 0.420 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Jewelers and Precious Stone and Metal Workers | 0.452 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300) |
| Manufactured Building and Mobile Home Installers | 0.450 | (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350) |
| Merchandise Displayers and Window Trimmers | 0.498 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Computer aided design<br>CAD software, 0.325), (Desktop publishing software, 0.275) |
| Models | 0.412 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, |

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*Table A3.2 Retail Trade (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | 0.325), (Computer aided design CAD software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225) |
| Motorboat Mechanics and Service Technicians | 0.392 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225) |
| Motorcycle Mechanics | 0.319 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Inventory management software, 0.325), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| Musical Instrument Repairers and Tuners | 0.561 | (Analytical or scientific software, 0.300) |
| Outdoor Power Equipment and Other Small Engine Mechanics | 0.502 | (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Analytical or scientific software, 0.300), (Point of sale POS software, 0.300) |
| Packers and Packagers, Hand | 0.316 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325) |
| Parts Salespersons | 0.383 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325) |
| Pharmacists | 0.613 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Label making software, 0.250) |
| Pharmacy Aides | 0.257 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325) |
| Pharmacy Technicians | 0.331 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300), (Label making software, 0.250) |
| Recreational Vehicle Service Technicians | 0.464 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), |

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*Table A3.2 Retail Trade (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Inventory management software, 0.325), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| Retail Salespersons | 0.518 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Web page creation and editing software, 0.225) |
| Stockers and Order Fillers | 0.604 | (Materials requirements planning logistics and supply chain software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Voice synthesizer and recognition software, 0.325), (Desktop communications software, 0.250) |
| Tailors, Dress-makers, and Custom Sewers | 0.370 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300) |
| Tire Repairers and Changers | 0.376 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Accounting software, 0.325), (Project management software, 0.300) |
| Watch and Clock Repairers | 0.450 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Project management software, 0.300) |

## *Table A3.3 Finance and Insurance*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Actuaries | 0.479 | (Word processing software, 0.450), (Object oriented database management software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Business intelligence and data analysis software, 0.175) |
| Brokerage Clerks | 0.476 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Object oriented database management software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225) |
| Claims Adjusters, Examiners, and Investigators | 0.456 | (Document management software, 0.500), (Expert system software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Financial analysis software, 0.375), (Interactive voice response software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Medical software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Access software, 0.275), (database reporting software, 0.275), (Information retrieval or search software, 0.100) |
| Compensation, Benefits, and Job Analysis Specialists | 0.350 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (database reporting software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Correspondence Clerks | 0.438 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325), (Enterprise application integration software, 0.275) |

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*Table A3.3 Finance and Insurance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Credit Analysts | 0.427 | (Document management software, 0.500), (Word processing software, 0.450), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Analytical or scientific software, 0.300), (Content workflow software, 0.275), (Object or component oriented development software, 0.275), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Credit Authorizers, Checkers, and Clerks | 0.436 | (Word processing software, 0.450), (Internet browser software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Business intelligence and data analysis software, 0.175) |
| Customer Service Representatives | 0.591 | (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Document management software, 0.500), (Time accounting software, 0.475), (Transaction security and virus protection software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Network conferencing software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Voice recognition software, 0.375), (Video creation and editing software, 0.375), (Mobile messaging service software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Contact center software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Point of sale POS software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (Access software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (Desktop communications software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Communications server software, 0.250), (Multi-media educational software, 0.250), (Fax software, 0.245), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Financial and Investment Analysts | 0.518 | (Document management software, 0.500), (Word processing software, 0.450), (Expert system software, 0.450), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Charting software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Configuration management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, |

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*Table A3.3 Finance and Insurance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | 0.300), (Enterprise system management software, 0.275), (database reporting software, 0.275), (database management system software, 0.275), (Human resources software, 0.275), (Object or component oriented development software, 0.275), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Financial Examiners | 0.504 | (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Project management software, 0.300), (Information retrieval or search software, 0.100) |
| Financial Managers | 0.482 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Compliance software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Object or component oriented development software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Financial Risk Specialists | 0.384 | (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Expert system software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Charting software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Configuration management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Content workflow software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Human resources software, 0.275), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Insurance Appraisers, Auto Damage | 0.318 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), |

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*Table A3.3 Finance and Insurance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Compiler and decompiler software, 0.300), (Project management software, 0.300)s |
| Insurance Claims and Policy Processing Clerks | 0.398 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Instant messaging software, 0.300) |
| Insurance Sales Agents | 0.527 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Medical software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225) |
| Insurance Underwriters | 0.388 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Object or component oriented development software, 0.275), (Information retrieval or search software, 0.100) |
| Loan Interviewers and Clerks | 0.488 | (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Financial analysis software, 0.375),<br>(Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Desktop publishing software, 0.275) |
| Loan Officers | 0.479 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Video conferencing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Transaction server software, 0.300), (Content workflow software, 0.275), (Information retrieval or search software, 0.100) |
| New Accounts Clerks | 0.388 | (Word processing software, 0.450), (Internet browser software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning |

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*Table A3.3 Finance and Insurance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325) |
| Personal Financial Advisors | 0.425 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Financial analysis software, 0.375),<br><br>(Internet browser software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Communications server software, 0.250) |
| Securities, Commodities, and Financial Services Sales Agents | 0.486 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Object or component oriented development software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Tellers | 0.447 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325 |

*Table A3.4 Educational Services*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors | 0.425 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225) |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Agricultural Sciences Teachers, Postsecondary | 0.559 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Medical software, 0.325), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Anthropology and Archeology Teachers, Postsecondary | 0.546 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Architecture Teachers, Postsecondary | 0.498 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Archivists | 0.421 | (Document management software, 0.500), (Word processing software, 0.450), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Desktop publishing software, 0.275), (Enterprise application integration software, 0.275), (Geographic information system, 0.225) |
| Area, Ethnic, and Cultural Studies Teachers, Postsecondary | 0.476 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Computer based training software, 0.325), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Art, Drama, and Music Teachers, Postsecondary | 0.553 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Office suite |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Music or sound editing software, 0.350), (Development environment software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Web platform development software, 0.325), (Computer aided design CAD software, 0.325), (Desktop publishing software, 0.275), (database management system software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary | 0.475 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Biological Science Teachers, Postsecondary | 0.526 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Bus Drivers, School | 0.330 | (Operating system software, 0.425), (Internet browser software, 0.375), (Map creation software, 0.375) |
| Business Teachers, Postsecondary | 0.495 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Information retrieval or search software, 0.100) |
| Career/Technical Education Teachers, Middle School | 0.416 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Expert system software, 0.450), (Graphical user interface development software, 0.425), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Storage networking software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (File versioning software, 0.325), (Cloud-based data access and sharing software, 0.325), (Web platform |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | development software, 0.325), (Computer based training software, 0.325), (Configuration management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Clustering software, 0.300), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Program testing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Career/ Technical Education Teachers, Postsecondary | 0.402 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Instant messaging software, 0.300), (Desktop communications software, 0.250), (Information retrieval or search software, 0.100) |
| Career/Technical Education Teachers, Secondary School | 0.652 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Computer aided design CAD software, 0.325), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Information retrieval or search software, 0.100) |
| Chemistry Teachers, Postsecondary | 0.486 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100) |
| Choreographers | 0.307 | (Word processing software, 0.450), (Graphical user interface development software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Web page creation and editing software, 0.225) |
| Coaches and Scouts | 0.540 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Data conversion software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Computer based training software, 0.325), (Instant messaging software, 0.300), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225) |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Communications Teachers, Postsecondary | 0.345 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Music or sound editing software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Computer Science Teachers, Postsecondary | 0.369 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer based training software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Web platform development software, 0.325), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Information retrieval or search software, 0.100) |
| Credit Counselors | 0.417 | (Word processing software, 0.450), (Network conferencing software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Information retrieval or search software, 0.100) |
| Criminal Justice and Law Enforcement Teachers, Postsecondary | 0.500 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Information retrieval or search software, 0.100) |
| Economics Teachers, Postsecondary | 0.440 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Education Administrators, Kindergarten through Secondary | 0.430 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Mobile messaging service software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (database management system software, 0.275), (Human resources software, 0.275), (Communications server software, 0.250), (Desktop communications software, 0.250), (Multi-media educational software, 0.250) |
| Education Administrators, Postsecondary | 0.444 | (Word processing software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Mobile messaging service software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Computer based training software, 0.325), (Facilities management software, 0.325), (Web platform development software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Education Teachers, Postsecondary | 0.503 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100) |
| Educational, Guidance, and Career Counselors and Advisors | 0.460 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Network conferencing software, 0.375), (Mobile messaging service software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer based training software, 0.325), (Medical software, 0.325), (Network monitoring software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Elementary School Teachers, Except Special Education | 0.533 | (Word processing software, 0.450), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Presentation software, 0.325), |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Desktop communications software, 0.250), (Multi-media educational software, 0.250) |
| Engineering Teachers, Postsecondary | 0.495 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Computer based training software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Information retrieval or search software, 0.100) |
| English Language and Literature Teachers, Postsecondary | 0.530 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Music or sound editing software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Information retrieval or search software, 0.100) |
| Environmental Science Teachers, Postsecondary | 0.425 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Computer aided design CAD software, 0.325), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Executive Secretaries and Executive Administrative Assistants | 0.443 | (Document management software, 0.500), (Time accounting software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Network conferencing software, 0.375), (Internet browser software, 0.375), (Mobile messaging service software, 0.375), (Procurement software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Facilities Managers | 0.474 | (Document management software, 0.500), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (database management system software, 0.275) |
| Family and Consumer Sciences Teachers, Postsecondary | 0.457 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Video conferencing software, 0.325), (Presentation software, 0.325), (Computer based training software, 0.325), (database management system software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Farm and Home Management Educators | 0.564 | (Word processing software, 0.450), (Internet browser software, 0.375), (Procurement software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Project management software, 0.300), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Geographic information system, 0.225) |
| Foreign Language and Literature Teachers, Postsecondary | 0.404 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Dictionary software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Graphics or photo imaging software, 0.350), (Music or sound editing software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Computer based training software, 0.325), (Foreign language software, 0.300), (Desktop publishing software, 0.275), (Desktop communications software, 0.250), (Information retrieval or search software, 0.100) |
| Forestry and Conservation Science Teachers, Postsecondary | 0.419 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Object oriented database management software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer based training software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Geographic information |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | system, 0.225), (Information retrieval or search software, 0.100) |
| Geography Teachers, Postsecondary | 0.515 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Health Specialties Teachers, Postsecondary | 0.484 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Multi-media educational software, 0.250), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| History Teachers, Postsecondary | 0.421 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Web platform development software, 0.325), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Instructional Coordinators | 0.544 | (Document management software, 0.500), (Word processing software, 0.450), (Graphical user interface development software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Network conferencing software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Music or sound editing software, 0.350), (Graphics or photo imaging software, 0.350), (Charting software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225) |
| Kindergarten Teachers, Except Special Education | 0.425 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Desktop communications software, 0.250), (Multi-media educational software, 0.250) |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Law Teachers, Postsecondary | 0.476 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Legal management software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Librarians and Media Collections Specialists | 0.476 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Library software, 0.325), (Web platform development software, 0.325), (Computer aided design CAD software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Library Science Teachers, Postsecondary | 0.539 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Cloud-based management software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Library software, 0.325), (Web platform development software, 0.325), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Mathematical Science Teachers, Postsecondary | 0.602 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100) |
| Middle School Teachers, Except Special and Career/Technical Education | 0.555 | (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | conferencing software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225) |
| Nursing Instructors and Teachers, Postsecondary | 0.412 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Medical software, 0.325), (Multi-media educational software, 0.250), (Information retrieval or search software, 0.100) |
| Philosophy and Religion Teachers, Postsecondary | 0.493 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Dictionary software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation |
| | | software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100) |
| Physics Teachers, Postsecondary | 0.533 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Development environment software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Desktop communications software, 0.250), (Information retrieval or search software, 0.100) |
| Political Science Teachers, Postsecondary | 0.478 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Data mining software, 0.275), (Information retrieval or search software, 0.100) |
| Psychology Teachers, Postsecondary | 0.542 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Recreation and Fitness Studies Teachers, Postsecondary | 0.399 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Optical character reader |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| School Bus Monitors | 0.230 | (Operating system software, 0.425), (Internet browser software, 0.375) |
| School Psychologists | 0.439 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300) |
| Secondary School Teachers, Except Special and Career/Technical Education | 0.480 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Multi-media educational software, 0.250) |
| Secretaries and Administrative Assistants, Except Legal, Medical, and Executive | 0.633 | (Backup or archival software, 0.550), (Document management software, 0.500), (Time accounting software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Mobile messaging service software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Voice recognition software, 0.375), (Network conferencing software, 0.375), (Portal server software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Metadata management software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (Access software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Data mining software, 0.275), (Enterprise application integration software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Self-Enrichment Teachers | 0.545 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225) |
| Social Science Research Assistants | 0.475 | (Word processing software, 0.450), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Social Work Teachers, Postsecondary | 0.460 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Information retrieval or search software, 0.100) |
| Sociology Teachers, Postsecondary | 0.488 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Information retrieval or search software, 0.100) |
| Special Education Teachers, Middle School | 0.533 | (Spell checkers, 0.700), (Word processing software, 0.450), (Operating system software, 0.425), (Device drivers or system software, 0.425), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Multi-media educational software, 0.250) |
| Special Education Teachers, Preschool | 0.563 | (Word processing software, 0.450), (Device drivers or system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325) |
| Special Education Teachers, Secondary School | 0.521 | (Spell checkers, 0.700), (Document management software, 0.500), (Word processing software, 0.450), (Device drivers or system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, |

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*Table A3.4 Educational Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225) |
| Substitute Teachers, Short-Term | 0.327 | (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Video conferencing software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Desktop communications software, 0.250), (Multi-media educational software, 0.250) |
| Teaching Assistants, Postsecondary | 0.436 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100) |
| Training and Development Specialists | 0.507 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Network conferencing software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer based training software, 0.325), (Web platform development software, 0.325), (Medical software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Access software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Tutors | 0.420 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225) |

## *Table A3.5 Real Estate and Rental and Leasing*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Concierges | 0.434 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Desktop publishing software, 0.275) |
| Counter and Rental Clerks | 0.397 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300) |
| Maintenance and Repair Workers, General | 0.480 | (Word processing software, 0.450), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375),<br><br>(Electronic mail software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225) |
| Property, Real Estate, and Community Association Managers | 0.519 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Access software, 0.275), (Data mining software, 0.275), (Web page creation and editing software, 0.225) |
| Real Estate Brokers | 0.380 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225), (Geographic information system, 0.225) |
| Real Estate Sales Agents | 0.487 | (Document management software, 0.500), (Word processing software, 0.450), (Expert system software, 0.450), (Calendar and scheduling software, 0.450), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting |

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*Table A3.5 Real Estate and Rental and Leasing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.325), (Route navigation software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Data mining software, 0.275), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225) |

*Table A3.6 Health Care and Social Assistance*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Acupuncturists | 0.279 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Medical software, 0.325) |
| Ambulance Drivers and Attendants, Except Emergency Medical Technicians | 0.463 | (Helpdesk or call center software, 0.650), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350) |
| Anesthesiologists | 0.465 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Accounting software, 0.325) |
| Athletic Trainers | 0.417 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Audiologists | 0.184 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Billing and Posting Clerks | 0.373 | (Document management software, 0.500), (Word processing software, 0.450), (Industrial control software, 0.450), (Expert system software, 0.450), (Operating system software, 0.425), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Access software, 0.275), (Business intelligence and data analysis software, 0.175) |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Cardiologists | 0.850 | (Transaction security and virus protection software, 0.475), (Medical software, 0.325) |
| Cardiovascular Technologists and Technicians | 0.231 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Web platform development software, 0.325), (Medical software, 0.325), (Inventory management software, 0.325), (Information retrieval or search software, 0.100) |
| Childcare Workers | 0.331 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Office suite software, 0.350), (Computer based training software, 0.325), (Project management software, 0.300), (Desktop communications software, 0.250), (Multi-media educational software, 0.250) |
| Chiropractors | 0.228 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Medical software, 0.325), (Accounting software, 0.325) |
| Clinical and Counseling Psychologists | 0.403 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300) |
| Community Health Workers | 0.342 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Medical software, 0.325), (Desktop publishing software, 0.275) |
| Cooks, Institution and Cafeteria | 0.484 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Analytical or scientific software, 0.300), (Point of sale POS software, 0.300) |
| Dental Assistants | 0.443 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Medical software, 0.325), (Accounting software, 0.325) |
| Dental Hygienists | 0.171 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Medical software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325) |
| Dentists, General | 0.343 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Medical software, 0.325), (Accounting software, 0.325) |
| Dermatologists | 0.365 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Medical software, 0.325) |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Diagnostic Medical Sonographers | 0.230 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Medical software, 0.325) |
| Dietetic Technicians | 0.436 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275) |
| Dietitians and Nutritionists | 0.437 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Network conferencing software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office) suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325), (Analytical or scientific software, 0.300), (Desktop communications software, 0.250 |
| Education and Childcare Administrators, Preschool and Daycare | 0.419 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Desktop communications software, 0.250) |
| Emergency Medical Technicians | 0.452 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Information retrieval or search software, 0.100) |
| Emergency Medicine Physicians | 0.450 | (Medical software, 0.325) |
| Exercise Physiologists | 0.363 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Family Medicine Physicians | 0.493 | (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Medical software, 0.325), (Accounting software, 0.325), (Information retrieval or search software, 0.100) |
| First-Line Supervisors of Office and Administrative Support Workers | 0.484 | (Document management software, 0.500), (Time accounting software, 0.475), (Transaction security and virus protection software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Financial analysis software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Medical software, 0.325), |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Project management software, 0.300), (Instant messaging software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Access software, 0.275), (Human resources software, 0.275), (Communications server software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Food Servers, Nonrestaurant | 0.341 | (Operating system software, 0.425), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| General Internal Medicine Physicians | 0.366 | (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Accounting software, 0.325), (Medical software, 0.325), (Information retrieval or search software, 0.100) |
| Genetic Counselors | 0.369 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Analytical or scientific software, 0.300) |
| Health Education Specialists | 0.404 | (Word processing software, 0.450), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Network conferencing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225) |
| Health Information Technologists and Medical Registrars | 0.269 | (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Expert system software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Voice recognition software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Metadata management software, 0.325), (Categorization or classification software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (database reporting software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Desktop communications software, 0.250), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Healthcare Social Workers | 0.479 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Mobile messaging service software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225) |
| Interviewers, Except Eligibility and Loan | 0.270 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Medical software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Human resources software, 0.275) |
| Licensed Practical and Licensed Vocational Nurses | 0.413 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325), (Inventory management software, 0.325), (Categorization or classification software, 0.325) |
| Magnetic Resonance Imaging Technologists | 0.195 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Medical software, 0.325) |
| Marriage and Family Therapists | 0.065 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325) |
| Medical and Health Services Managers | 0.476 | (Backup or archival software, 0.550), (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Charting software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Medical software, 0.325), (Categorization or classification software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Access software, 0.275), (Enterprise application integration software, 0.275), (database management system software, 0.275), (Human resources software, 0.275), (Object or component oriented development software, |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | 0.275), (Communications server software, 0.250), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Medical Assistants | 0.445 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Network conferencing software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Categorization or classification software, 0.325) |
| Medical Dosimetrists | 0.517 | (Medical software, 0.325) |
| Medical Equipment Preparers | 0.383 | (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet |
| | | software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Inventory management software, 0.325), (Medical software, 0.325) |
| Medical Records Specialists | 0.391 | (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Expert system software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Voice recognition software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Metadata management software, 0.325), (Categorization or classification software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (database reporting software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Desktop communications software, 0.250), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Medical Secretaries and Administrative Assistants | 0.499 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Point of sale POS software, 0.300), (Desktop publishing software, 0.275) |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Medical Transcriptionists | 0.077 | (Spell checkers, 0.700), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Web platform development software, 0.325), (Accounting software, 0.325), (Desktop communications software, 0.250), (Information retrieval or search software, 0.100) |
| Mental Health and Substance Abuse Social Workers | 0.402 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325), (Desktop publishing software, 0.275) |
| Neurologists | 0.392 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Nuclear Medicine Technologists | 0.351 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), |
| | | (Presentation software, 0.325), (Medical software, 0.325) |
| Nurse Anesthetists | 0.408 | (Word processing software, 0.450), (Medical software, 0.325) |
| Nurse Midwives | 0.295 | (Spreadsheet software, 0.375), (Office suite software, 0.350), (Medical software, 0.325) |
| Nurse Practitioners | 0.531 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Medical software, 0.325) |
| Nursing Assistants | 0.099 | (Word processing software, 0.450), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Business intelligence and data analysis software, 0.175) |
| Obstetricians and Gynecologists | 0.562 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Medical software, 0.325) |
| Occupational Therapists | 0.251 | (Word processing software, 0.450), (Device drivers or system software, 0.425), (Pattern design software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (database user interface and query software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Music or sound editing software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Medical software, 0.325), (Computer based training software, 0.325), (Accounting |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.325), (Web page creation and editing software, 0.225) |
| Occupational Therapy Aides | 0.324 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Medical software, 0.325) |
| Occupational Therapy Assistants | 0.396 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Device drivers or system software, 0.425), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Voice recognition software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Action games, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Web page creation and editing software, 0.225) |
| Office Clerks, General | 0.531 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Enterprise application integration software, 0.275), (Human resources software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Ophthalmic Medical Technicians | 0.377 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Ophthalmologists, Except Pediatric | 0.337 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Medical software, 0.325), (Analytical or scientific software, 0.300) |
| Opticians, Dispensing | 0.168 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Inventory management software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Point of sale POS software, 0.300) |
| Optometrists | 0.231 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Medical software, 0.325), (Accounting software, 0.325) |
| Oral and Maxillofacial Surgeons | 0.367 | (Operating system software, 0.425), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Medical software, 0.325) |
| Orderlies | 0.276 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Medical software, 0.325) |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Orthodontists | 0.200 | (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Medical software, 0.325), (Web page creation and editing software, 0.225) |
| Orthopedic Surgeons, Except Pediatric | 0.312 | (Operating system software, 0.425), (Graphics or photo imaging software, 0.350), (Medical software, 0.325), (Human resources software, 0.275) |
| Orthotists and Prosthetists | 0.269 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Computer aided manufacturing CAM software, 0.325) |
| Paramedics | 0.291 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Information retrieval or search software, 0.100) |
| Pediatric Surgeons | 0.370 | (Operating system software, 0.425), (Graphics or photo imaging software, 0.350), (Medical software, 0.325), (Human resources software, 0.275) |
| Pediatricians, General | 0.322 | (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Medical software, 0.325), (Information retrieval or search software, 0.100) |
| Phlebotomists | 0.315 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Medical software, 0.325), (Web platform development software, 0.325) |
| Physical Therapist Aides | 0.501 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Medical software, 0.325) |
| Physical Therapist Assistants | 0.103 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Action games, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Accounting software, 0.325) |
| Physical Therapists | 0.274 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Action games, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300) |
| Physician Assistants | 0.451 | (Storage media loading software, 0.600), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Medical software, 0.325) |
| Physicians, Pathologists | 0.546 | (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (database management system software, 0.275), (Information retrieval or search software, 0.100) |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Podiatrists | 0.354 | (Word processing software, 0.450), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Medical software, 0.325), (Web page creation and editing software, 0.225) |
| Preschool Teachers, Except Special Education | 0.589 | (Word processing software, 0.450), (Mobile messaging service software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Video conferencing software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Desktop communications software, 0.250), (Multi-media educational software, 0.250) |
| Psychiatric Aides | 0.047 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Psychiatric Technicians | 0.324 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Medical software, 0.325), (Inventory management software, 0.325) |
| Psychiatrists | 0.130 | (Time accounting software, 0.475), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Medical software, 0.325), (Accounting software, 0.325) |
| Radiation Therapists | 0.345 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Medical software, 0.325) |
| Radiologic Technologists and Technicians | 0.451 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Categorization or classification software, 0.325), (Medical software, 0.325), (Information retrieval or search software, 0.100) |
| Radiologists | 0.093 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Voice recognition software, 0.375), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Medical software, 0.325) |
| Receptionists and Information Clerks | 0.389 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Network conferencing software, 0.375), (Spreadsheet software, 0.375), (Mobile messaging service software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Desktop publishing software, 0.275) |
| Recreational Therapists | 0.307 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Internet browser software, 0.375), (Music or sound editing software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Registered Nurses | 0.425 | (Time accounting software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Categorization or classification software, 0.325), (Project management software, 0.300), (Human resources software, 0.275), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Rehabilitation Counselors | 0.196 | (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Voice recognition software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Mobile location based services software, |
| | | 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Analytical or scientific software, 0.300), (Mobile operator specific application software, 0.300) |
| Residential Advisors | 0.383 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225) |
| Respiratory Therapists | 0.377 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Social and Community Service Managers | 0.364 | (Word processing software, 0.450), (Object oriented database management software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275) |
| Social and Human Service Assistants | 0.247 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Speech-Language Pathologists | 0.514 | (Word processing software, 0.450), (Video creation and editing software, 0.375), (Voice recognition software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Music or sound editing software, 0.350), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Desktop communications software, 0.250) |

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*Table A3.6 Health Care and Social Assistance (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Surgical Assistants | 0.282 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Surgical Technologists | 0.540 | (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325) |
| Switchboard Operators, Including Answering Service | 0.596 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Facilities management software, 0.325) |
| Telephone Operators | 0.469 | (Helpdesk or call center software, 0.650), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325) |

*Table A3.7 Arts, Entertainment, and Recreation*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Agents and Business Managers of Artists, Performers, and Athletes | 0.487 | (Word processing software, 0.450), (Tax preparation software, 0.425), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Transaction server software, 0.300), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Amusement and Recreation Attendants | 0.426 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225) |
| Athletes and Sports Competitors | 0.315 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225) |
| Costume Attendants | 0.135 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic |

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*Table A3.7 Arts, Entertainment, and Recreation (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | mail software, 0.350), (Inventory management software, 0.325) |
| Craft Artists | 0.380 | (Internet browser software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Point of sale POS software, 0.300), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225) |
| Curators | 0.368 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225) |
| Dancers | 0.365 | (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Disc Jockeys, Except Radio | 0.092 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Music or sound editing software, 0.350) |
| Entertainment and Recreation Managers, Except Gambling | 0.411 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Network conferencing software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Instant messaging software, 0.300), (Analytical or scientific software, 0.300), (database reporting software, 0.275), (Human resources software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Exercise Trainers and Group Fitness Instructors | 0.188 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Project management software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275) |

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*Table A3.7 Arts, Entertainment, and Recreation (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Fine Artists, Including Painters, Sculptors, and Illustrators | 0.357 | (Document management software, 0.500), (Word processing software, 0.450), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Point of sale POS software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225) |
| First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services | 0.287 | (Time accounting software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300) |
| Gambling and Sports Book Writers and Runners | 0.367 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Point of sale POS software, 0.300) |
| Locker Room, Coatroom, and Dressing Room Attendants | 0.302 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Inventory management software, 0.325), (Web page creation and editing software, 0.225) |
| Museum Technicians and Conservators | 0.546 | (Document management software, 0.500), (Word processing software, 0.450), (Object oriented database management software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Desktop publishing software, 0.275) |
| Set and Exhibit Designers | 0.521 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (File versioning software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Program testing software, 0.225) |
| Umpires, Referees, and Other Sports Officials | 0.358 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325) |

## *Table A3.8 Transportation and Warehousing*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Aircraft Cargo Handling Supervisors | 0.442 | (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Inventory management software, 0.325), (Web page creation and editing software, 0.225) |
| Aircraft Mechanics and Service Technicians | 0.411 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Facilities management software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Compiler and decompiler software, 0.300), (Information retrieval or search software, 0.100) |
| Aircraft Service Attendants | 0.268 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Facilities management software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100) |
| Airfield Operations Specialists | 0.480 | (Word processing software, 0.450), (Expert system software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250) |
| Airline Pilots, Copilots, and Flight Engineers | 0.265 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Route navigation software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100) |
| Avionics Technicians | 0.511 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Portal server software, 0.375), (Spreadsheet software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275) |
| Bus and Truck Mechanics and Diesel Engine Specialists | 0.544 | (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Facilities management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300) |

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*Table A3.8 Transportation and Warehousing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Captains, Mates, and Pilots of Water Vessels | 0.437 | (Materials requirements planning logistics and supply chain software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Route navigation software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300) |
| Cargo and Freight Agents | 0.539 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Procurement software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Mobile location based services software, 0.325) |
| Commercial Pilots | 0.353 | (Calendar and scheduling software, 0.450), (Aviation ground support software, 0.425), (Flight control software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Charting software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Route navigation software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Information retrieval or search software, 0.100) |
| Conveyor Operators and Tenders | 0.350 | (Materials requirements planning logistics and supply chain software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Enterprise resource planning ERP software, 0.325) |
| Couriers and Messengers | 0.407 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Route navigation software, 0.325) |
| Dispatchers, Except Police, Fire, and Ambulance | 0.520 | (Helpdesk or call center software, 0.650), (Time accounting software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Expert system software, 0.450), (Aviation ground support software, 0.425), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Mobile location based services software, 0.325), (Route navigation software, 0.325), (database reporting software, 0.275), (Geographic information system, 0.225) |
| Electrical and Electronics Installers and Repairers, Transportation Equipment | 0.402 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Compliance software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275) |
| Flight Attendants | 0.458 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation |

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*Table A3.8 Transportation and Warehousing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.325), (Computer based training software, 0.325) |
| Gas Compressor and Gas Pumping Station Operators | 0.314 | (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Facilities management software, 0.325) |
| Heavy and Tractor-Trailer Truck Drivers | 0.475 | (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Route navigation software, 0.325), (Analytical or scientific software, 0.300), (Desktop communications software, 0.250) |
| Industrial Truck and Tractor Operators | 0.514 | (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Computer aided design CAD software, 0.325) |
| Laborers and Freight, Stock, and Material Movers, Hand | 0.360 | (Materials requirements planning logistics and supply chain software, 0.450), (Industrial control software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Inventory management software, 0.325), (Computer aided design CAD software, 0.325), (Desktop publishing software, 0.275) |
| Light Truck Drivers | 0.409 | (Industrial control software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Route navigation software, 0.325), (Inventory management software, 0.325), (Desktop communications software, 0.250), (Communications server software, 0.250) |
| Locomotive Engineers | 0.388 | (Time accounting software, 0.475), (Expert system software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Route navigation software, 0.325) |
| Motorboat Operators | 0.439 | (Expert system software, 0.450), (Internet browser software, 0.375), (Map creation software, 0.375), (Mobile location based services software, 0.325), (Analytical or scientific software, 0.300) |
| Passenger Attendants | 0.355 | (Time accounting software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Electronic mail software, 0.350), (Office suite software, 0.350) |
| Rail Car Repairers | 0.404 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Compiler and decompiler software, 0.300) |

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*Table A3.8 Transportation and Warehousing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Rail Yard Engineers, Dinkey Operators, and Hostlers | 0.463 | (Expert system software, 0.450), (Industrial control software, 0.450), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Facilities management software, 0.325), (Inventory management software, 0.325) |
| Rail-Track Laying and Maintenance Equipment Operators | 0.481 | (Time accounting software, 0.475), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325) |
| Railroad Brake, Signal, and Switch Operators and Locomotive Firers | 0.379 | (Time accounting software, 0.475), (Expert system software, 0.450), (database user interface and query software, 0.375), (Route navigation software, 0.325) |
| Railroad Conductors and Yardmasters | 0.514 | (Materials requirements planning logistics and supply chain software, 0.450), (Industrial control software, 0.450), (Word processing software, 0.450), (Expert system software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325) |
| Reservation and Transportation Ticket Agents and Travel Clerks | 0.495 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Point of sale POS software, 0.300) |
| Sailors and Marine Oilers | 0.395 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Facilities management software, 0.325) |
| Ship Engineers | 0.400 | (Helpdesk or call center software, 0.650), (Document management software, 0.500), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Facilities management software, 0.325), (Project management software, 0.300), (Enterprise application integration software, 0.275) |
| Shuttle Drivers and Chauffeurs | 0.461 | (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Mobile location based services software, 0.325), (Web page creation and editing software, 0.225) |
| Signal and Track Switch Repairers | 0.229 | (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Facilities management software, 0.325) |
| Tank Car, Truck, and Ship Loaders | 0.531 | (Materials requirements planning logistics and supply chain software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325) |

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*Table A3.8 Transportation and Warehousing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Transportation, Storage, and Distribution Managers | 0.319 | (Backup or archival software, 0.550), (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Metadata management software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Route navigation software, 0.325), (Mobile location based services software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Label making software, 0.250), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Weighers, Measurers, Checkers, and Samplers, Recordkeeping | 0.477 | (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300) |

*Table A3.9 Professional, Scientific, and Technical Services*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Accountants and Auditors | 0.553 | (Document management software, 0.500), (Time accounting software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Tax preparation software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Risk management data and analysis software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Medical software, 0.325), (Transaction server software, 0.300), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Object or component oriented development software, 0.275), (Human resources software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Desktop communications software, 0.250), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Advertising and Promotions Managers | 0.314 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Enterprise application integration software, 0.275), (database management system software, 0.275), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Agricultural Technicians | 0.271 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Mobile location based services software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Geographic information system, 0.225) |
| Animal Scientists | 0.402 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Human resources software, 0.275), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Anthropologists and Archeologists | 0.167 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Voice recognition software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Mobile location based services software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Geographic information system, 0.225) |
| Arbitrators, Mediators, and Conciliators | 0.427 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325) |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Architects, Except Landscape and Naval | 0.312 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Object oriented database management software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Procurement software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Configuration management software, 0.325), (Metadata management software, 0.325), (Accounting software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (database management system software, 0.275), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Architectural and Civil Drafters | 0.373 | (Document management software, 0.500), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Pattern design software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Enterprise application integration software, 0.275), (Geographic information system, 0.225) |
| Architectural and Engineering Managers | 0.631 | (Document management software, 0.500), (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Industrial control software, 0.450), (Expert system software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (File versioning software, 0.325), (Configuration management software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Network monitoring software, 0.325), (Accounting software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Inventory management software, 0.325), (Transaction server software, 0.300), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Access software, 0.275), (Content workflow software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Program testing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Art Directors | 0.309 | (Document management software, 0.500), (Word processing software, 0.450), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Network conferencing software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Mobile operator specific application software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Program testing software, 0.225) |
| Astronomers | 0.450 | (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (database management system software, 0.275) |
| Atmospheric and Space Scientists | 0.495 | (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Geographic information system, 0.225) |
| Biochemists and Biophysicists | 0.468 | (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Bioengineers and Biomedical Engineers | 0.462 | (Word processing software, 0.450), (Expert system software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Spreadsheet software, 0.375), (Pattern design software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Charting software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | 0.300), (Project management software, 0.300), (database reporting software, 0.275), (Requirements analysis and system architecture software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Program testing software, 0.225) |
| Biological Technicians | 0.410 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Geographic information system, 0.225) |
| Bookkeeping, Accounting, and Auditing Clerks | 0.515 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Transaction server software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Enterprise application integration software, 0.275), (Human resources software, 0.275), (Desktop communications software, 0.250), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Calibration Technologists and Technicians | 0.378 | (Operating system software, 0.425), (Development environment software, 0.350), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300) |
| Chief Executives | 0.551 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275) |
| Civil Engineering Technologists and Technicians | 0.351 | (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Geographic information system, 0.225) |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Civil Engineers | 0.463 | (Document management software, 0.500), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Computer and Information Research Scientists | 0.409 | (Industrial control software, 0.450), (Graphical user interface development software, 0.425), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Video creation and editing software, 0.375), (Portal server software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (File versioning software, 0.325), (Web platform development software, 0.325), (Metadata management software, 0.325), (Configuration management software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Compiler and decompiler software, 0.300), (Project management software, 0.300), (Clustering software, 0.300), (Requirements analysis and system architecture software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Data mining software, 0.275), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Communications server software, 0.250), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Computer and Information Systems Managers | 0.534 | (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Network connectivity terminal emulation software, 0.525), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Object oriented database management software, 0.425), (LAN software, 0.425), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Spreadsheet software, 0.375), (Portal server software, 0.375), (Internet browser software, 0.375), (Network conferencing software, 0.375), (Platform interconnectivity software, 0.375), (Video creation and editing software, 0.375), (Financial analysis software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Cloud-based protection or security software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Configuration management software, 0.325), (Metadata |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | management software, 0.325), (Network monitoring software, 0.325), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Project management software, 0.300), (Software defined networking/ virtualization software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Wireless software, 0.275), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Content workflow software, 0.275), (Access software, 0.275), (Requirements analysis and system architecture software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Human resources software, 0.275), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Application server software, 0.250), (Communications server software, 0.250), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Computer Hardware Engineers | 0.422 | (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Pattern design software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (File versioning software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Compiler and decompiler software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Desktop communications software, 0.250), (Program testing software, 0.225), (Information retrieval or search software, 0.100) |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Computer Network Architects | 0.164 | (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Internet directory services software, 0.475), (Time accounting software, 0.475), (Transaction security and virus protection software, 0.475), (Expert system software, 0.450), (Industrial control software, 0.450), (Word processing software, 0.450), (Bridge software, 0.425), (Object oriented database management software, 0.425), (LAN software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (WAN switching software and firmware, 0.400), (Cloud-based management software, 0.400), (Storage networking software, 0.375), (Financial analysis software, 0.375), (Authentication server software, 0.375), (Spreadsheet software, 0.375), (Pattern design software, 0.375), (Video creation and editing software, 0.375), (Portal server software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Network operating system enhancement software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based protection or security software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Optical network management software, 0.325), (Network monitoring software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Switch or router software, 0.325), (Metadata management software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Computer aided design CAD software, 0.325), (Computer based training software, 0.325), (Transaction server software, 0.300), (Project management software, 0.300), (Instant messaging software, 0.300), (Analytical or scientific software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Access software, 0.275), (Administration software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Program testing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Geographic infor mation system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Computer Network Support Specialists | 0.561 | (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Document management software, 0.500), (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Spreadsheet software, 0.375), (Platform interconnectivity software, 0.375), (Storage networking software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based protection or security software, 0.350), (Network operating system enhancement software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Network monitoring software, 0.325), (Computer aided design CAD software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Configuration management software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Transaction server software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Administration software, 0.275), (Access software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Internet protocol IP multimedia subsystem software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Network security or virtual private network VPN management software, 0.225), (Program testing software, 0.225) |
| Computer Programmers | 0.174 | (Backup or archival software, 0.550), (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Industrial control software, 0.450), (Object oriented database management software, 0.425), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Storage networking software, 0.375), (Financial analysis software, 0.375), (Portal server software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Presentation software, 0.325), (Network monitoring software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Metadata management software, 0.325), (Medical software, 0.325), (Analytical or scientific software, 0.300), (Compiler and decompiler software, 0.300), (Project management software, 0.300), (Transaction server software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Requirements analysis and system architecture software, 0.275), (Access software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Communications server software, 0.250), (Web page creation and editing software, 0.225), (Program testing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Computer Systems Analysts | 0.156 | (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Document management software, 0.500), (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Industrial control software, 0.450), (Graphical user interface development software, 0.425), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Pattern design software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Network conferencing software, 0.375), (Video creation and editing software, 0.375), (Storage networking software, 0.375), (Portal server software, 0.375), (Customer relationship management CRM software, 0.375), |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Data conversion software, 0.350), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Configuration management software, 0.325), (Web platform development software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Metadata management software, 0.325), (Network monitoring software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Compiler and decompiler software, 0.300), (Instant messaging software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (Requirements analysis and system architecture software, 0.275), (Administration software, 0.275), (Access software, 0.275), (database reporting software, 0.275), (Content workflow software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (database management system software, 0.275), (Human resources software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Program testing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Computer User Support Specialists | 0.187 | (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Document management software, 0.500), (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Expert system software, 0.450), (Industrial control software, 0.450), (Object oriented database management software, 0.425), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (License management software, 0.400), (Cloud-based management software, 0.400), (Video creation and editing software, 0.375), (Portal server software, 0.375), (Storage networking software, 0.375), (Financial analysis software, 0.375), (Platform interconnectivity software, 0.375), (Network conferencing software, 0.375), (Authentication server software, 0.375), (Spreadsheet software, 0.375), (Network operation system software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Cloud-based protection or security software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Network monitoring software, 0.325), (Configuration management software, 0.325), (Computer aided design CAD software, 0.325), (Computer based training software, 0.325), (Web platform development software, 0.325), (Accounting software, 0.325), (Metadata management software, 0.325), (Medical software, 0.325), (Instant messaging software, 0.300), (Project management |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.300), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Clustering software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (Access software, 0.275), (Administration software, 0.275), (database reporting software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Communications server software, 0.250), (Desktop communications software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Program testing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Data Scientists | 0.350 | (Industrial control software, 0.450), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Storage networking software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Procedure management software, 0.375), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Content workflow software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Database Administrators | 0.197 | (Backup or archival software, 0.550), (Transaction security and virus protection software, 0.475), (Expert system software, 0.450), (Word processing software, 0.450), (Industrial control software, 0.450), (Object oriented database management software, 0.425), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Storage networking software, 0.375), (Portal server software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Network conferencing software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Procedure management software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based protection or security software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (File versioning software, 0.325), (Configuration management software, 0.325), (Web platform development software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Network monitoring software, 0.325), (Metadata management software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Project management |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.300), (Transaction server software, 0.300), (Manufacturing execution system MES software, 0.300), (Clustering software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (Requirements analysis and system architecture software, 0.275), (database reporting software, 0.275), (Administration software, 0.275), (Access software, 0.275), (Content workflow software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Program testing software, 0.225), (Geographic information system, 0.225), (Network security or virtual private network VPN management software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Database Architects | 0.466 | (Storage media loading software, 0.600), (Backup or archival software, 0.550), (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Storage networking software, 0.375), (Spreadsheet software, 0.375), (Network conferencing software, 0.375), (Portal server software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Cloud-based protection or security software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (File versioning software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Metadata management software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Network monitoring software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Medical software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Manufacturing execution system MES software, 0.300), (Transaction server software, 0.300), (Project management software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Administration software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (Access software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Communications server software, 0.250), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Program testing software, 0.225), (Geographic information system, 0.225), (Network security or virtual private network VPN management software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Demonstrators and Product Promoters | 0.455 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Presentation software, 0.325), (Video conferencing software, 0.325), (Web platform development software, 0.325), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225) |
| Electrical and Electronics Drafters | 0.480 | (Document management software, 0.500), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Application server software, 0.250), (Geographic information system, 0.225) |
| Environmental Engineering Technologists and Technicians | 0.346 | (Document management software, 0.500), (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Categorization or classification software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Geographic information system, 0.225) |
| Environmental Engineers | 0.378 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Desktop communications software, 0.250), (Geographic information system, 0.225) |
| Environmental Science and Protection Technicians, Including Health | 0.425 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Geographic information system, 0.225) |
| File Clerks | 0.464 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325), (Accounting software, 0.325) |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Geological Technicians, Except Hydrologic Technicians | 0.517 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Mobile location based services software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (database reporting software, 0.275), (Geographic information system, 0.225) |
| Geoscientists, Except Hydrologists and Geographers | 0.434 | (Document management software, 0.500), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Data conversion software, 0.350), (Presentation software, 0.325), (File versioning software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Geographic information system, 0.225) |
| Graphic Designers | 0.412 | (Document management software, 0.500), (Word processing software, 0.450), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Music or sound editing software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225) |
| Human Resources Managers | 0.594 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Charting software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Information Security Analysts | 0.186 | (Backup or archival software, 0.550), (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Industrial control software, 0.450), (Object oriented database management software, |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | 0.425), (Operating system software, 0.425), (License management software, 0.400), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Authentication server software, 0.375), (Financial analysis software, 0.375), (Storage networking software, 0.375), (Portal server software, 0.375), (Risk management data and analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Cloud-based protection or security software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Configuration management software, 0.325), (Network monitoring software, 0.325), (Web platform development software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Medical software, 0.325), (Transaction server software, 0.300), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Point of sale POS software, 0.300), (Instant messaging software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Access software, 0.275), (Content workflow software, 0.275), (Requirements analysis and system architecture software, 0.275), (Administration software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Network security or virtual private network VPN management software, 0.225), (Program testing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Interior Designers | 0.517 | (Document management software, 0.500), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275) |
| Interpreters and Translators | 0.357 | (Word processing software, 0.450), (Dictionary software, 0.425), (Internet browser software, 0.375), (Mobile messaging service software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Foreign language software, 0.300), (Internet protocol IP multimedia subsystem software, 0.250) |
| Landscape Architects | 0.552 | (Document management software, 0.500), (Word processing software, 0.450), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Geographic information system, 0.225) |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Lawyers | 0.558 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Tax preparation software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Content workflow software, 0.275), (Data mining software, 0.275), (Information retrieval or search software, 0.100) |
| Legal Secretaries and Administrative Assistants | 0.474 | (Document management software, 0.500), (Word processing software, 0.450), (Expert system software, 0.450), (Calendar and scheduling software, 0.450), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Management Analysts | 0.177 | (Backup or archival software, 0.550), (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Industrial control software, 0.450), (Object oriented database management software, 0.425), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Portal server software, 0.375), (Video creation and editing software, 0.375), (Network conferencing software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Video conferencing software, 0.325), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Web platform development software, 0.325), (Network monitoring software, 0.325), (Configuration management software, 0.325), (Medical software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Accounting software, 0.325), (Metadata management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Transaction server software, 0.300), (Clustering software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Access software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (database management system software, 0.275), (Human resources software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Web page creation and editing software, 0.225), |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Sales and marketing software, 0.225), (Geographic information system, 0.225), (Program testing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Marine Engineers and Naval Architects | 0.353 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300) |
| Market Research Analysts and Marketing Specialists | 0.436 | (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Network conferencing software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Web platform development software, 0.325), (Categorization or classification software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Point of sale POS software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Marketing Managers | 0.490 | (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Expert system software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Financial analysis software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Network conferencing software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Web platform development software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Transaction server software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (Content workflow software, 0.275), (Access software, 0.275), (database reporting software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Object or component |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | oriented development software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Communications server software, 0.250), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Materials Scientists | 0.391 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275) |
| Medical Scientists, Except Epidemiologists | 0.448 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Microbiologists | 0.422 | (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Analytical or scientific software, 0.300), (Information retrieval or search software, 0.100) |
| Mining and Geological Engineers, Including Mining Safety Engineers | 0.367 | (Word processing software, 0.450), (Operating system software, 0.425), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Clustering software, 0.300), (Network security or virtual private network VPN management software, 0.225) |
| Natural Sciences Managers | 0.487 | (Document management software, 0.500), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (database reporting software, 0.275), (database management system software, 0.275), (Geographic information system, 0.225) |
| Network and Computer Systems Administrators | 0.172 | (Helpdesk or call center software, 0.650), (Backup or archival software, 0.550), (Document management software, 0.500), (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Expert system software, 0.450), (Industrial control software, 0.450), (Object oriented database management software, 0.425), |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Storage networking software, 0.375), (Authentication server software, 0.375), (Platform interconnectivity software, 0.375), (Portal server software, 0.375), (Spreadsheet software, 0.375), (Pattern design software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Computer imaging software, 0.375), (Development environment software, 0.350), (Cloud-based protection or security software, 0.350), (Network operating system enhancement software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (File versioning software, 0.325), (Optical network management software, 0.325), (Presentation software, 0.325), (Network monitoring software, 0.325), (Computer based training software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Configuration management software, 0.325), (Metadata management software, 0.325), (Web platform development software, 0.325), (Medical software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Transaction server software, 0.300), (Analytical or scientific software, 0.300), (Compiler and decompiler software, 0.300), (Gateway software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (Administration software, 0.275), (database reporting software, 0.275), (Access software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Geographic information system, 0.225), (Program testing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Operations Research Analysts | 0.405 | (Backup or archival software, 0.550), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based Spreadsheet software, 0.375), (Risk management data and analysis software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Network monitoring software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise system management software, management software, 0.400), (Financial analysis software, 0.375), (0.275), (Access software, 0.275), (database reporting software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Communications server software, 0.250), (Desktop communications software, 0.250), (Sales and marketing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Paperhangers | 0.305 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Graphics or photo imaging software, 0.350), (Accounting software, 0.325), (Project management software, 0.300), (Enterprise application integration software, 0.275) |
| Paralegals and Legal Assistants | 0.465 | (Document management software, 0.500), (Word processing software, 0.450), (Pattern design software, 0.375), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (File versioning software, 0.325), (Accounting software, 0.325), (Categorization or classification software, 0.325), (Library software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Desktop publishing software, 0.275), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Payroll and Time-keeping Clerks | 0.462 | (Time accounting software, 0.475), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (database reporting software, 0.275), (Human resources software, 0.275), (Business intelligence and data analysis software, 0.175) |
| Photographers | 0.434 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225) |
| Photographic Process Workers and Processing Machine Operators | 0.332 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (File versioning software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Web platform development software, 0.325), (Desktop publishing software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Application server software, 0.250) |
| Physicists | 0.442 | (Word processing software, 0.450), (Expert system software, 0.450), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Spreadsheet software, 0.375), (Video creation and editing |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Music or sound editing software, 0.350), (Presentation software, 0.325), (File versioning software, 0.325), (Computer aided design CAD software, 0.325), (Configuration management software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Clustering software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275) |
| Project Management Specialists | 0.449 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Network conferencing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (File versioning software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Content workflow software, 0.275), (Human resources software, 0.275), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Public Relations Managers | 0.457 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Web platform development software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Data mining software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Public Relations Specialists | 0.578 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Network conferencing software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.325), (Cloud-based data access and sharing software, 0.325), (Web platform development software, 0.325), (Network monitoring software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Data mining software, 0.275), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Information retrieval or search software, 0.100) |
| Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel | 0.463 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise application integration software, 0.275), (Sales and marketing software, 0.225) |
| Sociologists | 0.407 | (Document management software, 0.500), (Word processing software, 0.450), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Software Developers | 0.181 | (Backup or archival software, 0.550), (Document management software, 0.500), (Internet directory services software, 0.475), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Object oriented database management software, 0.425), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Device drivers or system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Network operation system software, 0.375), (Network conferencing software, 0.375), (Storage networking software, 0.375), (Authentication server software, 0.375), (Platform interconnectivity software, 0.375), (Financial analysis software, 0.375), (Portal server software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Map creation software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (File versioning software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Network monitoring software, 0.325), (Computer based training software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Metadata management software, 0.325), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Project management software, 0.300), |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Instant messaging software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (Access software, 0.275), (database reporting software, 0.275), (Administration software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Communications server software, 0.250), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Program testing software, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Software Quality Assurance Analysts and Testers | 0.188 | (Backup or archival software, 0.550), (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Industrial control software, 0.450), (Graphical user interface development software, 0.425), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Device drivers or system software, 0.425), (Cloud-based management software, 0.400), (Process mapping and design software, 0.400), (Storage networking software, 0.375), (Network operation system software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Video creation and editing software, 0.375), (Platform interconnectivity software, 0.375), (Portal server software, 0.375), (Network conferencing software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (File versioning software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Computer aided design CAD software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Accounting software, 0.325), (Metadata management software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Network monitoring software, 0.325), (Transaction server software, 0.300), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Clustering software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (Access software, 0.275), (database reporting software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (Administration software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Communications server software, 0.250), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Program testing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Soil and Plant Scientists | 0.392 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Computer aided design CAD software, 0.325), (Categorization or classification software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Geographic information system, 0.225) |
| Statistical Assistants | 0.379 | (Document management software, 0.500), (Word processing software, 0.450), (Internet browser software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (database reporting software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Business intelligence and data analysis software, 0.175) |
| Statisticians | 0.447 | (Word processing software, 0.450), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Analytical or scientific software, 0.300), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Data mining software, 0.275), (Enterprise application integration software, 0.275), (Business intelligence and data analysis software, 0.175) |
| Survey Researchers | 0.430 | (Document management software, 0.500), (Word processing software, 0.450), (Expert system software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Interactive voice response software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Customer relationship management CRM software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Web page creation and editing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Surveying and Mapping Technicians | 0.512 | (Word processing software, 0.450), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Categorization or classification software, 0.325), (Mobile location based services software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | management software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Object or component oriented development software, 0.275), (Geographic information system, 0.225) |
| Surveyors | 0.582 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Data conversion software, 0.350), (Graphics or photo imaging software, 0.350), (Mobile location based services software, 0.325), (Computer aided design CAD software, 0.325), (Route navigation software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Application server software, 0.250), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Tax Preparers | 0.546 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Tax preparation software, 0.425), (Internet browser software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Accounting software, 0.325), (Project management software, 0.300), (Human resources software, 0.275), (Web page creation and editing software, 0.225) |
| Technical Writers | 0.537 | (Document management software, 0.500), (Word processing software, 0.450), (Graphical user interface development software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (File versioning software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Computer aided design CAD software, 0.325), (Configuration management software, 0.325), (Medical software, 0.325), (Computer based training software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Object or component oriented development software, 0.275), (Data mining software, 0.275), (Enterprise application integration software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225) |
| Title Examiners, Abstractors, and Searchers | 0.475 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Geographic information system, 0.225) |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Training and Development Managers | 0.525 | (Document management software, 0.500), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Computer based training software, 0.325), (Medical software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (database management system software, 0.275), (Web page creation and editing software, 0.225) |
| Veterinarians | 0.519 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Veterinary Assistants and Laboratory Animal Caretakers | 0.508 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325), (Label making software, 0.250) |
| Veterinary Technologists and Technicians | 0.379 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Medical software, 0.325) |
| Web and Digital Interface Designers | 0.581 | (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Industrial control software, 0.450), (Expert system software, 0.450), (Graphical user interface development software, 0.425), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Video creation and editing software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Storage networking software, 0.375), (Portal server software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (File versioning software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Metadata management software, 0.325), (Computer based training software, 0.325), (Network monitoring software, 0.325), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Project management software, 0.300), (Transaction server software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Requirements analysis and system architecture software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Communications |

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*Table A3.9 Professional, Scientific, and Technical Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | server software, 0.250), (Desktop communications software, 0.250), (Multi-media educational software, 0.250), (Sales and marketing software, 0.225), (Web page creation and editing software, 0.225), (Program testing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Web Developers | 0.485 | (Document management software, 0.500), (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Expert system software, 0.450), (Graphical user interface development software, 0.425), (Object oriented database management software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Portal server software, 0.375), (Storage networking software, 0.375), (Financial analysis software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Video conferencing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (File versioning software, 0.325), (Web platform development software, 0.325), (Network monitoring software, 0.325), (Metadata management software, 0.325), (Configuration management software, 0.325), (Computer based training software, 0.325), (Medical software, 0.325), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Transaction server software, 0.300), (Project management software, 0.300), (Enterprise system management software, 0.275), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Requirements analysis and system architecture software, 0.275), (Content workflow software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Communications server software, 0.250), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Program testing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Writers and Authors | 0.381 | (Document management software, 0.500), (Word processing software, 0.450), (Graphical user interface development software, 0.425), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225) |

## *Table A3.10 Accommodation and Food Services*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Baggage Porters and Bellhops | 0.243 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350) |
| Bartenders | 0.360 | (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| Chefs and Head Cooks | 0.437 | (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225) |
| Cooks, Fast Food | 0.290 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Point of sale POS software, 0.300) |
| Cooks, Restaurant | 0.434 | (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Inventory management software, 0.325), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| Cooks, Short Order | 0.467 | (Inventory management software, 0.325), (Point of sale POS software, 0.300) |
| Dining Room and Cafeteria Attendants and Bartender Helpers | 0.307 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| Dishwashers | 0.169 | (Operating system software, 0.425), (Web page creation and editing software, 0.225) |
| Driver/Sales Workers | 0.589 | (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Inventory management software, 0.325), (Project management software, 0.300), (Communications server software, 0.250) |
| Fast Food and Counter Workers | 0.496 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Web platform development software, 0.325), (Computer based training software, 0.325), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| First-Line Supervisors of Food Preparation and Serving Workers | 0.525 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Procurement software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), |

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*Table A3.10 Accommodation and Food Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Presentation software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Point of sale POS software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Communications server software, 0.250) |
| First-Line Supervisors of Gambling Services Workers | 0.301 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Project management software, 0.300) |
| Food Preparation Workers | 0.549 | (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Computer based training software, 0.325) |
| Food Service Managers | 0.527 | (Time accounting software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Point of sale POS software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Object or component oriented development software, 0.275), (Communications server software, 0.250), (Web page creation and editing software, 0.225) |
| Gambling Dealers | 0.396 | (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (database management system software, 0.275), (Business intelligence and data analysis software, 0.175) |
| Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop | 0.486 | (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| Hotel, Motel, and Resort Desk Clerks | 0.542 | (Word processing software, 0.450), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Facilities management software, 0.325), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225) |
| Lodging Managers | 0.486 | (Time accounting software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Facilities management software, 0.325), (Accounting software, 0.325), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| Maids and Housekeeping Cleaners | 0.457 | (Materials requirements planning logistics and supply chain software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Facilities management software, 0.325), (Inventory management software, 0.325), (Instant |

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*Table A3.10 Accommodation and Food Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | messaging software, 0.300), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225) |
| Waiters and Waitresses | 0.315 | (Instant messaging software, 0.300), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |

*Table A3.11 Other Services Except Public Administration*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Animal Caretakers | 0.542 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325) |
| Automotive Body and Related Repairers | 0.350 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Accounting software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Point of sale POS software, 0.300) |
| Automotive Glass Installers and Repairers | 0.397 | (Operating system software, 0.425), (database user interface and query software, 0.375), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Project management software, 0.300) |
| Barbers | 0.363 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| Camera and Photographic Equipment Repairers | 0.439 | (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350) |
| Cleaners of Vehicles and Equipment | 0.504 | (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (database user interface and query software, 0.375), (Inventory management software, 0.325) |
| Clergy | 0.535 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225) |
| Cooks, Private Household | 0.456 | (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Accounting software, 0.325), (Inventory management software, 0.325), (Web page creation and editing software, 0.225) |
| Crematory Operators | 0.523 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350) |

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*Table A3.11 Other Services Except Public Administration (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Directors, Religious Activities and Education | 0.597 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225) |
| Embalmers | 0.473 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350) |
| First-Line Supervisors of Mechanics, Installers, and Repairers | 0.375 | (Time accounting software, 0.475), (Industrial control software, 0.450), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Inventory management software, 0.325), (Facilities management software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Communications server software, 0.250) |
| First-Line Supervisors of Personal Service Workers | 0.328 | (Time accounting software, 0.475), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300) |
| Fundraisers | 0.478 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Web page creation and editing software, 0.225) |
| Fundraising Managers | 0.578 | (Document management software, 0.500), (Word processing software, 0.450), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Web platform development software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Funeral Attendants | 0.359 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Accounting software, 0.325), (Human resources software, 0.275) |

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*Table A3.11 Other Services Except Public Administration (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Funeral Home Managers | 0.431 | (Word processing software, 0.450), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Human resources software, 0.275) |
| Hairdressers, Hairstylists, and Cosmetologists | 0.369 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Accounting software, 0.325), (Point of sale POS software, 0.300), (Web page creation and editing software, 0.225) |
| Home Appliance Repairers | 0.251 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Route navigation software, 0.325) |
| Labor Relations Specialists | 0.519 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Human resources software, 0.275), (Application server software, 0.250) |
| Laundry and Dry-Cleaning Workers | 0.277 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Point of sale POS software, 0.300) |
| Manicurists and Pedicurists | 0.474 | (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Web page creation and editing software, 0.225) |
| Massage Therapists | 0.321 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Medical software, 0.325) |
| Meeting, Convention, and Event Planners | 0.557 | (Word processing software, 0.450), (Network conferencing software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Web platform development software, 0.325), (Facilities management software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225) |
| Morticians, Undertakers, and Funeral Arrangers | 0.501 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Project management software, 0.300), (Human resources software, 0.275) |

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*Table A3.12 Information (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Music Directors and Composers | 0.319 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Music or sound editing software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Desktop publishing software, 0.275) |
| Musicians and Singers | 0.439 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Music or sound editing software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Computer based training software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225) |
| Parking Attendants | 0.270 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Point of sale POS software, 0.300) |
| Pressers, Textile, Garment, and Related Materials | 0.333 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350) |
| Shampooers | 0.262 | (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Inventory management software, 0.325), (Web page creation and editing software, 0.225) |
| Skincare Specialists | 0.407 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325) |

*Table A3.12 Information*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Actors | 0.468 | (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225) |
| Advertising Sales Agents | 0.519 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Desktop publishing software, 0.275), (Sales and marketing software, 0.225) |
| Audio and Video Technicians | 0.401 | (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), |

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*Table A3.12 Information (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Video conferencing software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Desktop publishing software, 0.275), (Internet protocol IP multimedia subsystem software, 0.250), (Web page creation and editing software, 0.225) |
| Broadcast Announcers and Radio Disc Jockeys | 0.438 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Music or sound editing software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Enterprise application integration software, 0.275) |
| Broadcast Technicians | 0.379 | (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Music or sound editing software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Desktop publishing software, 0.275) |
| Camera Operators, Television, Video, and Film | 0.466 | (Document management software, 0.500), (Word processing software, 0.450), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225) |
| Desktop Publishers | 0.451 | (Spell checkers, 0.700), (Printer driver software, 0.525), (Document management software, 0.500), (Word processing software, 0.450), (Graphics card driver software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Data conversion software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Web page creation and editing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Information retrieval or search software, 0.100) |
| Door-to-Door Sales Workers, News and Street Vendors, and Related Workers | 0.331 | (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Route navigation software, 0.325), (Web page creation and editing software, 0.225) |
| Editors | 0.459 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design |

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*Table A3.12 Information (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.400), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Computer based training software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Internet protocol IP multimedia subsystem software, 0.250), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Film and Video Editors | 0.360 | (Word processing software, 0.450), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Music or sound editing software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Computer aided design CAD software, 0.325), (Enterprise application integration software, 0.275), (Web page creation and editing software, 0.225) |
| Lighting Technicians | 0.385 | (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Program testing software, 0.225) |
| Makeup Artists, Theatrical and Performance | 0.357 | (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Accounting software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225) |
| Motion Picture Projectionists | 0.483 | (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225) |
| News Analysts, Reporters, and Journalists | 0.417 | (Word processing software, 0.450), (Object oriented database management software, 0.425), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Graphics or photo imaging software, 0.350), (Music or sound editing software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |

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*Table A3.12 Information (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Producers and Directors | 0.270 | (Document management software, 0.500), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Music or sound editing software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Instant messaging software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Content workflow software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225) |
| Proofreaders and Copy Markers | 0.466 | (Document management software, 0.500), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Desktop publishing software, 0.275), (Internet protocol IP multimedia subsystem software, 0.250), (Web page creation and editing software, 0.225), (Program testing software, 0.225) |
| Radio, Cellular, and Tower Equipment Installers and Repairers | 0.349 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Geographic information system, 0.225) |
| Sound Engineering Technicians | 0.400 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Music or sound editing software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (File versioning software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Metadata management software, 0.325), (Clustering software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Internet protocol IP multimedia subsystem software, 0.250), (Web page creation and editing software, 0.225) |
| Special Effects Artists and Animators | 0.368 | (Document management software, 0.500), (Word processing software, 0.450), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Desktop publishing software, 0.275), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225) |

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*Table A3.12 Information (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Telecommunications Equipment Installers and Repairers, Except Line Installers | 0.573 | (Expert system software, 0.450), (Industrial control software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Network security and virtual private network VPN equipment software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Communications server software, 0.250), (Internet protocol IP multimedia subsystem software, 0.250), (Geographic information system, 0.225) |
| Telecommunications Line Installers and Repairers | 0.453 | (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Internet protocol IP multimedia subsystem software, 0.250) |
| Ushers, Lobby Attendants, and Ticket Takers | 0.329 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325) |

*Table A3.13 Manufacturing*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Adhesive Bonding Machine Operators and Tenders | 0.359 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325) |
| Aerospace Engineering and Operations Technologists and Technicians | 0.350 | (Word processing software, 0.450), (Industrial control software, 0.450), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (database management system software, 0.275), (Program testing software, 0.225) |
| Aerospace Engineers | 0.242 | (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Configuration |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Requirements analysis and system architecture software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275) |
| Aircraft Structure, Surfaces, Rigging, and Systems Assemblers | 0.429 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325) |
| Bakers | 0.314 | (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275) |
| Cabinetmakers and Bench Carpenters | 0.378 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Project management software, 0.300) |
| Chemical Engineers | 0.408 | (Industrial control software, 0.450), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275) |
| Chemical Equipment Operators and Tenders | 0.319 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325) |
| Chemical Plant and System Operators | 0.474 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Network security or virtual private network VPN management software, 0.225) |
| Chemical Technicians | 0.386 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275) |
| Chemists | 0.367 | (Document management software, 0.500), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275) |
| Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders | 0.340 | (Word processing software, 0.450), (Spreadsheet software, 0.375) |
| Coating, Painting, and Spraying Machine Setters, Operators, and Tenders | 0.463 | (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Inventory management software, 0.325), (Facilities management software, 0.325) |
| Coil Winders, Tapers, and Finishers | 0.506 | (Industrial control software, 0.450), (Graphics or photo imaging software, 0.350), (Analytical or scientific software, 0.300) |
| Commercial and Industrial Designers | 0.451 | (Document management software, 0.500), (Word processing software, 0.450), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Desktop communications software, 0.250), (Geographic information system, 0.225) |
| Computer Numerically Controlled Tool Operators | 0.385 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Desktop communications software, 0.250), (Information retrieval or search software, 0.100) |
| Computer Numerically Controlled Tool Programmers | 0.309 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275) |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Cooling and Freezing Equipment Operators and Tenders | 0.197 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325) |
| Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders | 0.271 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325) |
| Cutters and Trimmers, Hand | 0.418 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350) |
| Cutting and Slicing Machine Setters, Operators, and Tenders | 0.479 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325) |
| Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic | 0.468 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Computer aided manufacturing CAM software, 0.325) |
| Dental Laboratory Technicians | 0.359 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Computer aided manufacturing CAM software, 0.325) |
| Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 0.386 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325) |
| Electrical and Electronic Engineering Technologists and Technicians | 0.533 | (Network connectivity terminal emulation software, 0.525), (Document management software, 0.500), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Program testing software, 0.225), (Business intelligence and data analysis software, 0.175) |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Electrical and Electronics Repairers, Commercial and Industrial Equipment | 0.477 | (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Facilities management software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Program testing software, 0.225) |
| Electrical Engineers | 0.456 | (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (WAN switching software and firmware, 0.400), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (File versioning software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Configuration management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Requirements analysis and system architecture software, 0.275), (Object or component oriented development software, 0.275), (Geographic information system, 0.225), (Program testing software, 0.225) |
| Electro-Mechanical and Mechatronics Technologists and Technicians | 0.391 | (Industrial control software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Program testing software, 0.225) |
| Electronics Engineers, Except Computer | 0.365 | (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (File versioning software, 0.325), (Computer aided design CAD software, 0.325), (Compiler and decompiler software, 0.300), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Geographic information system, 0.225) |
| Engine and Other Machine Assemblers | 0.425 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325) |
| Etchers and Engravers | 0.451 | (Operating system software, 0.425), (Computer aided design CAD and computer aided manufacturing CAM system, 0.375), (Graphics or photo imaging software, 0.350), (Computer aided manufacturing CAM software, 0.325) |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic | 0.269 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Enterprise application integration software, 0.275) |
| Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers | 0.482 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (database management system software, 0.275) |
| Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders | 0.328 | (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325) |
| Fabric and Apparel Patternmakers | 0.384 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325) |
| Fiberglass Laminators and Fabricators | 0.554 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Enterprise resource planning ERP software, 0.325) |
| First-Line Supervisors of Production and Operating Workers | 0.588 | (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Enterprise application integration software, 0.275), (Human resources software, 0.275) |
| Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders | 0.321 | (Spreadsheet software, 0.375), (Electronic mail software, 0.350) |
| Food Batchmakers | 0.503 | (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325) |
| Food Cooking Machine Operators and Tenders | 0.522 | (database user interface and query software, 0.375) |
| Food Science Technicians | 0.440 | (Word processing software, 0.450), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Cloud-based management software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Application server software, 0.250) |
| Food Scientists and Technologists | 0.172 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Sales and marketing software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Forging Machine Setters, Operators, and Tenders, Metal and Plastic | 0.470 | (Industrial control software, 0.450), (Electronic mail software, 0.350), (Inventory management software, 0.325) |
| Foundry Mold and Coremakers | 0.642 | (Industrial control software, 0.450), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Inventory management software, 0.325) |
| Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders | 0.334 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Inventory management software, 0.325) |
| Furniture Finishers | 0.416 | (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Accounting software, 0.325) |
| Grinding and Polishing Workers, Hand | 0.314 | (Word processing software, 0.450), (Spreadsheet software, 0.375) |
| Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 0.389 | (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325) |
| Health and Safety Engineers, Except Mining Safety Engineers and Inspectors | 0.372 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (License management software, 0.400), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Customer relationship management CRM software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer based training software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275) |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic | 0.447 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325) |
| Helpers--Production Workers | 0.393 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Desktop publishing software, 0.275) |
| Industrial Engineering Technologists and Technicians | 0.440 | (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Desktop communications software, 0.250) |
| Industrial Engineers | 0.372 | (Materials requirements planning logistics and supply chain software, 0.450), (Industrial control software, 0.450), (Expert system software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300),<br><br>(Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Human resources software, 0.275), (Application server software, 0.250), (Program testing software, 0.225) |
| Industrial Machinery Mechanics | 0.405 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Inventory management software, 0.325), (Facilities management software, 0.325) |
| Industrial Production Managers | 0.548 | (Document management software, 0.500), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Internet browser |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Desktop communications software, 0.250), (Business intelligence and data analysis software, 0.175) |
| Inspectors, Testers, Sorters, Samplers, and Weighers | 0.368 | (Industrial control software, 0.450), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Medical software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Content workflow software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Label making software, 0.250), (Desktop communications software, 0.250), (Program testing software, 0.225) |
| Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 0.605 | (Industrial control software, 0.450), (Inventory management software, 0.325), (Object or component oriented development software, 0.275) |
| Layout Workers, Metal and Plastic | 0.495 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Procedure management software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325) |
| Log Graders and Scalers | 0.333 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Inventory management software, 0.325) |
| Logisticians | 0.430 | (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Procurement software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Enterprise system management software, 0.275), (Business intelligence and data analysis software, 0.175) |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Machine Feeders and Offbearers | 0.430 | (Time accounting software, 0.475), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350) |
| Machinists | 0.360 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Procedure management software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275) |
| Maintenance Workers, Machinery | 0.453 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Facilities management software, 0.325) |
| Materials Engineers | 0.424 | (Word processing software, 0.450), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275) |
| Meat, Poultry, and Fish Cutters and Trimmers | 0.422 | (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Inventory management software, 0.325), (Point of sale POS software, 0.300) |
| Mechanical Drafters | 0.459 | (Document management software, 0.500), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Project management software, 0.300), (Enterprise application integration software, 0.275), (Geographic information system, 0.225) |
| Mechanical Engineering Technologists and Technicians | 0.474 | (Industrial control software, 0.450), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275) |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Mechanical Engineers | 0.450 | (Materials requirements planning logistics and supply chain software, 0.450), (Industrial control software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Configuration management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Instant messaging software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Geographic information system, 0.225) |
| Medical Appliance Technicians | 0.402 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Medical software, 0.325), (Computer aided manufacturing CAM software, 0.325) |
| Metal-Refining Furnace Operators and Tenders | 0.465 | (Industrial control software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Inventory management software, 0.325) |
| Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic | 0.371 | (Materials requirements planning logistics and supply chain software, 0.450), (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Computer aided design CAD and computer aided manufacturing CAM system, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275) |
| Mixing and Blending Machine Setters, Operators, and Tenders | 0.327 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325) |
| Model Makers, Metal and Plastic | 0.319 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Computer aided manufacturing CAM software, 0.325), (Computer aided design CAD software, 0.325) |
| Molders, Shapers, and Casters, Except Metal and Plastic | 0.428 | (Time accounting software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Inventory management software, 0.325) |
| Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic | 0.409 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Analytical or scientific software, 0.300) |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic | 0.268 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325) |
| Occupational Health and Safety Technicians | 0.454 | (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Analytical or scientific software, 0.300) |
| Ophthalmic Laboratory Technicians | 0.373 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Medical software, 0.325), (Computer aided design CAD software, 0.325) |
| Packaging and Filling Machine Operators and Tenders | 0.411 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Label making software, 0.250) |
| Painting, Coating, and Decorating Workers | 0.448 | (Spreadsheet software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350) |
| Paper Goods Machine Setters, Operators, and Tenders | 0.476 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Desktop publishing software, 0.275) |
| Patternmakers, Metal and Plastic | 0.354 | (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325) |
| Patternmakers, Wood | 0.366 | (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Computer aided manufacturing CAM software, 0.325) |
| Petroleum Pump System Operators, Refinery Operators, and Gaugers | 0.353 | (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Inventory management software, 0.325) |
| Plating Machine Setters, Operators, and Tenders, Metal and Plastic | 0.312 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Procurement software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325) |
| Pourers and Casters, Metal | 0.469 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Presentation software, 0.325) |
| Prepress Technicians and Workers | 0.456 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Video creation and editing software, 0.375), (Graphics or photo imaging software, 0.350), (Optical character read- |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | er OCR or scanning software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Desktop publishing software, 0.275), (Internet protocol IP multimedia subsystem software, 0.250) |
| Print Binding and Finishing Workers | 0.440 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Library software, 0.325), (Accounting software, 0.325), (Desktop publishing software, 0.275), (Label making software, 0.250) |
| Printing Press Operators | 0.594 | (Document management software, 0.500), (Industrial control software, 0.450), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Project management software, 0.300), (Desktop publishing software, 0.275) |
| Production, Planning, and Expediting Clerks | 0.469 | (Document management software, 0.500), (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Procurement software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275) |
| Purchasing Managers | 0.550 | (Materials requirements planning logistics and supply chain software, 0.450), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Procurement software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Inventory management software, 0.325), (Project management software, 0.300), (Point of sale POS software, 0.300), (database reporting software, 0.275), (Business intelligence and data analysis software, 0.175) |
| Refractory Materials Repairers, Except Brickmasons | 0.501 | (Time accounting software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Presentation software, 0.325), (Facilities management software, 0.325) |
| Rolling Machine Setters, Operators, and Tenders, Metal and Plastic | 0.128 | (Internet browser software, 0.375), (Electronic mail software, 0.350) |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Sawing Machine Setters, Operators, and Tenders, Wood | 0.408 | (Document management software, 0.500), (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325) |
| Semiconductor Processing Technicians | 0.512 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Analytical or scientific software, 0.300) |
| Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders | 0.370 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325) |
| Sewers, Hand | 0.458 | (Spreadsheet software, 0.375), (Graphics or photo imaging software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325) |
| Sewing Machine Operators | 0.329 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350) |
| Shipping, Receiving, and Inventory Clerks | 0.404 | (Document management software, 0.500), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Procurement software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Access software, 0.275), (Enterprise application integration software, 0.275), (Label making software, 0.250) |
| Shoe and Leather Workers and Repairers | 0.490 | (Spreadsheet software, 0.375), (Accounting software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300) |
| Shoe Machine Operators and Tenders | 0.429 | (Document management software, 0.500), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325) |
| Slaughterers and Meat Packers | 0.368 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325) |
| Structural Metal Fabricators and Fitters | 0.254 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325) |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Textile Bleaching and Dyeing Machine Operators and Tenders | 0.344 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325) |
| Textile Cutting Machine Setters, Operators, and Tenders | 0.426 | (Industrial control software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325) |
| Textile Knitting and Weaving Machine Setters, Operators, and Tenders | 0.434 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided manufacturing CAM software, 0.325) |
| Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders | 0.310 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Computer aided manufacturing CAM software, 0.325) |
| Timing Device Assemblers and Adjusters | 0.599 | (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Point of sale POS software, 0.300) |
| Tire Builders | 0.354 | (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Project management software, 0.300) |
| Tool and Die Makers | 0.426 | (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Project management software, 0.300) |
| Tool Grinders, Filers, and Sharpeners | 0.467 | (Spreadsheet software, 0.375), (Computer aided design CAD and computer aided manufacturing CAM system, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Computer aided manufacturing CAM software, 0.325) |
| Upholsterers | 0.344 | (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325) |
| Welders, Cutters, Solderers, and Brazers | 0.250 | (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300) |

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*Table A3.13 Manufacturing (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders | 0.277 | (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325) |
| Woodworking Machine Setters, Operators, and Tenders, Except Sawing | 0.389 | (Document management software, 0.500), (Time accounting software, 0.475), (Industrial control software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275) |

*Table A 3.14 Construction*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Boilermakers | 0.472 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Computer based training software, 0.325) |
| Brickmasons and Blockmasons | 0.452 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300) |
| Carpenters | 0.426 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Carpet Installers | 0.409 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Computer aided design CAD software, 0.325), (Project management software, 0.300) |
| Cement Masons and Concrete Finishers | 0.560 | (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Information retrieval or search software, 0.100) |
| Construction Laborers | 0.227 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Project management software, 0.300) |

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*Table A 3.14 Construction (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Construction Managers | 0.528 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Human resources software, 0.275), (Web page creation and editing software, 0.225) |
| Cost Estimators | 0.506 | (Document management software, 0.500), (Expert system software, 0.450), (Word processing software, 0.450), (License management software, 0.400), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (database reporting software, 0.275) |
| Crane and Tower Operators | 0.321 | (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Inventory management software, 0.325) |
| Dredge Operators | 0.539 | (Industrial control software, 0.450), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Mobile location based services software, 0.325) |
| Drywall and Ceiling Tile Installers | 0.445 | (Word processing software, 0.450), (Operating system software, 0.425), (database user interface and query software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Accounting software, 0.325), (Project management software, 0.300) |
| Earth Drillers, Except Oil and Gas | 0.400 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Mobile location based services software, 0.325) |
| Electricians | 0.394 | (Document management software, 0.500), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300) |
| Elevator and Escalator Installers and Repairers | 0.523 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Facilities management software, 0.325), (Analytical or scientific software, 0.300) |
| Fence Erectors | 0.384 | (Spreadsheet software, 0.375), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Web page creation and editing software, 0.225) |

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*Table A 3.14 Construction (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| First-Line Supervisors of Construction Trades and Extraction Workers | 0.467 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Facilities management software, 0.325), (Project management software, 0.300) |
| Floor Layers, Except Carpet, Wood, and Hard Tiles | 0.366 | (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Project management software, 0.300), (Web page creation and editing software, 0.225) |
| Floor Sanders and Finishers | 0.410 | (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Computer aided design CAD software, 0.325), (Project management software, 0.300) |
| Glaziers | 0.409 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Computer aided design CAD software, 0.325), (Project management software, 0.300) |
| Heating, Air Conditioning, and Refrigeration Mechanics and Installers | 0.393 | (Document management software, 0.500), (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325) |
| Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters | 0.321 | (Word processing software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300) |
| Helpers--Carpenters | 0.272 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300) |
| Helpers--Electricians | 0.541 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Computer aided design CAD software, 0.325) |
| Helpers--Installation, Maintenance, and Repair Workers | 0.212 | (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided |

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*Table A 3.14 Construction (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | design CAD software, 0.325), (Facilities management software, 0.325) |
| Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons | 0.373 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Accounting software, 0.325), (Project management software, 0.300) |
| Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters | 0.522 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350) |
| Helpers--Roofers | 0.506 | (database user interface and query software, 0.375), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300) |
| Hoist and Winch Operators | 0.383 | (Word processing software, 0.450), (Spreadsheet software, 0.375) |
| Insulation Workers, Floor, Ceiling, and Wall | 0.370 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Analytical or scientific software, 0.300), (Project management software, 0.300) |
| Insulation Workers, Mechanical | 0.494 | (database user interface and query software, 0.375), (Enterprise resource planning ERP software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300) |
| Mechanical Door Repairers | 0.349 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Route navigation software, 0.325), (Web page creation and editing software, 0.225) |
| Millwrights | 0.414 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325) |
| Operating Engineers and Other Construction Equipment Operators | 0.330 | (Time accounting software, 0.475), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Facilities management software, 0.325) |
| Painters, Construction and Maintenance | 0.423 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Project management software, 0.300), (Analytical or scientific software, 0.300) |
| Paving, Surfacing, and Tamping Equipment Operators | 0.357 | (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Computer aided design CAD software, 0.325), (Project management software, 0.300) |
| Pile Driver Operators | 0.338 | (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Mobile location based services software, 0.325), (Analytical or scientific software, 0.300) |

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*Table A 3.14 Construction (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Pipelayers | 0.123 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350) |
| Plasterers and Stucco Masons | 0.381 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Computer aided manufacturing CAM software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300) |
| Plumbers, Pipefitters, and Steamfitters | 0.375 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Computer aided design CAD software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300) |
| Reinforcing Iron and Rebar Workers | 0.537 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Computer aided design CAD software, 0.325), (Project management software, 0.300) |
| Riggers | 0.467 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325) |
| Roofers | 0.387 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300) |
| Sheet Metal Workers | 0.393 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Computer aided manufacturing CAM software, 0.325), (Computer aided design CAD software, 0.325) |
| Solar Photovoltaic Installers | 0.363 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Enterprise application integration software, 0.275) |
| Stonemasons | 0.505 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Access software, 0.275), (Network security or virtual private network VPN management software, 0.225) |
| Structural Iron and Steel Workers | 0.380 | (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Project management software, 0.300) |

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*Table A 3.14 Construction (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Tapers | 0.518 | (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Project management software, 0.300) |
| Terrazzo Workers and Finishers | 0.203 | (Operating system software, 0.425), (Spreadsheet software, 0.375), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300) |
| Tile and Stone Setters | 0.400 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300) |

*Table A 3.15 Utilities*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Control and Valve Installers and Repairers, Except Mechanical Door | 0.545 | (Word processing software, 0.450), (Industrial control software, 0.450), (Graphical user interface development software, 0.425), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300) |
| Electrical and Electronics Repairers, Powerhouse, Substation, and Relay | 0.375 | (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300) |
| Electrical Power-Line Installers and Repairers | 0.295 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Video conferencing software, 0.325), (Computer aided design CAD software, 0.325), (Mobile location based services software, 0.325), (Inventory management software, 0.325), (Geographic information system, 0.225) |
| Gas Plant Operators | 0.373 | (Word processing software, 0.450), (Industrial control software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325) |
| Nuclear Engineers | 0.481 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), |

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*Table A 3.15 Utilities (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | (Object or component oriented development software, 0.275) |
| Nuclear Power Reactor Operators | 0.547 | (Calendar and scheduling software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Project management software, 0.300), (Business intelligence and data analysis software, 0.175) |
| Nuclear Technicians | 0.326 | (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Clustering software, 0.300), (Application server software, 0.250) |
| Power Distributors and Dispatchers | 0.411 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Geographic information system, 0.225) |
| Power Plant Operators | 0.453 | (Industrial control software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300) |
| Wind Turbine Service Technicians | 0.389 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Facilities management software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300) |

*Table A3.16 Management of Companies and Enterprises*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Compensation and Benefits Managers | 0.388 | (Document management software, 0.500), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Video creation and editing software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Medical software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (Web page creation and editing software, 0.225) |

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## *Table A3.17 Mining, Quarrying, and Oil and Gas Extraction*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Continuous Mining Machine Operators | 0.287 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Mobile location based services software, 0.325), (Analytical or scientific software, 0.300) |
| Derrick Operators, Oil and Gas | 0.456 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350) |
| Excavating and Loading Machine and Dragline Operators, Surface Mining | 0.376 | (Industrial control software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325) |
| Helpers--Extraction Workers | 0.389 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325) |
| Loading and Moving Machine Operators, Underground Mining | 0.370 | (Time accounting software, 0.475), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Facilities management software, 0.325) |
| Petroleum Engineers | 0.388 | (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Business intelligence and data analysis software, 0.175) |
| Pump Operators, Except Wellhead Pumpers | 0.442 | (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Facilities management software, 0.325) |
| Rock Splitters, Quarry | 0.251 | (Time accounting software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Computer aided design CAD software, 0.325), (Facilities management software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Application server software, 0.250), (Web page creation and editing software, 0.225) |
| Roof Bolters, Mining | 0.650 | (Industrial control software, 0.450), (Enterprise resource planning ERP software, 0.325) |
| Rotary Drill Operators, Oil and Gas | 0.338 | (Industrial control software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275) |

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*Table A3.17 Mining, Quarrying, and Oil and Gas Extraction (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Roustabouts, Oil and Gas | 0.342 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Procurement software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Switch or router software, 0.325), (Project management software, 0.300), (database management system software, 0.275), (Internet protocol IP multimedia subsystem software, 0.250) |
| Service Unit Operators, Oil and Gas | 0.460 | (Time accounting software, 0.475), (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Facilities management software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300) |
| Wellhead Pumpers | 0.504 | (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325) |

*Table A3.18 Government*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Administrative Law Judges, Adjudicators, and Hearing Officers | 0.290 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Legal management software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Presentation software, 0.325), (Instant messaging software, 0.300), (Information retrieval or search software, 0.100) |
| Administrative Services Managers | 0.449 | (Document management software, 0.500), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Financial analysis software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Medical software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Instant messaging software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (Content workflow software, 0.275), (database reporting software, 0.275), (Object or component oriented development software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Agricultural Engineers | 0.495 | (Word processing software, 0.450), (Industrial control software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Geographic information system, 0.225) |
| Agricultural Inspectors | 0.377 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325) |
| Air Traffic Controllers | 0.399 | (Document management software, 0.500), (Expert system software, 0.450), (Word processing software, 0.450), (Flight control software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Web page creation and editing software, 0.225) |
| Animal Control Workers | 0.458 | (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Geographic information system, 0.225) |
| Bailiffs | 0.584 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Analytical or scientific software, 0.300) |
| Bridge and Lock Tenders | 0.452 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Network security or virtual private network VPN management software, 0.225) |
| Budget Analysts | 0.502 | (Time accounting software, 0.475), (Word processing software, 0.450), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Development environment software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (database reporting software, 0.275), (Human resources software, 0.275), (Object or component oriented development software, 0.275), (Business intelligence and data analysis software, 0.175) |
| Bus Drivers, Transit and Intercity | 0.250 | (Operating system software, 0.425), (Internet browser software, 0.375), (Map creation software, 0.375) |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Cartographers and Photogrammetrists | 0.520 | (Data compression software, 0.525), (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Flight control software, 0.375), (Platform interconnectivity software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Object or component oriented development software, 0.275), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Child, Family, and School Social Workers | 0.433 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Medical software, 0.325) |
| Compliance Officers | 0.500 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325) |
| Conservation Scientists | 0.404 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Mobile location based services software, 0.325), (Analytical or scientific software, 0.300), (Geographic information system, 0.225) |
| Construction and Building Inspectors | 0.498 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Procurement software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Computer aided design CAD software, 0.325), (Project management software, 0.300), (database reporting software, 0.275), (Geographic information system, 0.225) |
| Correctional Officers and Jailers | 0.267 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (database management system software, 0.275), (Web page creation and editing software, 0.225) |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Court Reporters and Simultaneous Captioners | 0.459 | (Time accounting software, 0.475), (Word processing software, 0.450), (Voice recognition software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325) |
| Court, Municipal, and License Clerks | 0.509 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Project management software, 0.300), (database reporting software, 0.275), (Information retrieval or search software, 0.100) |
| Detectives and Criminal Investigators | 0.331 | (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Network monitoring software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Geographic information system, 0.225) |
| Economists | 0.367 | (Word processing software, 0.450), (Operating system software, 0.425), (Financial analysis software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Eligibility Interviewers, Government Programs | 0.311 | (Data compression software, 0.525), (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Medical software, 0.325), (Analytical or scientific software, 0.300), (database reporting software, 0.275) |
| Emergency Management Directors | 0.423 | (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Geographic information system, 0.225) |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Environmental Scientists and Specialists, Including Health | 0.316 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Geographic information system, 0.225) |
| Epidemiologists | 0.429 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Data mining software, 0.275), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Explosives Workers, Ordnance Handling Experts, and Blasters | 0.483 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Mobile location based services software, 0.325), (Analytical or scientific software, 0.300), (Geographic information system, 0.225) |
| Fire Inspectors and Investigators | 0.427 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Human resources software, 0.275) |
| Firefighters | 0.459 | (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Geographic information system, 0.225) |
| First-Line Supervisors of Correctional Officers | 0.426 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325) |
| First-Line Supervisors of Firefighting and Prevention Workers | 0.465 | (Helpdesk or call center software, 0.650), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Geographic information system, 0.225) |
| First-Line Supervisors of Police and Detectives | 0.533 | (Helpdesk or call center software, 0.650), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325) |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Fish and Game Wardens | 0.399 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Presentation software, 0.325), (Mobile location based services software, 0.325), (Configuration management software, 0.325), (Object or component oriented development software, 0.275) |
| Forensic Science Technicians | 0.478 | (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300) |
| Forest and Conservation Technicians | 0.355 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Inventory management software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225), (Geographic information system, 0.225) |
| Forest and Conservation Workers | 0.448 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Project management software, 0.300), (Geographic information system, 0.225) |
| Forest Fire Inspectors and Prevention Specialists | 0.418 | (Expert system software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Cloud-based management software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Development environment software, 0.350), (Electronic mail software, 0.350), (File versioning software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Metadata management software, 0.325), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Application server software, 0.250), (Web page creation and editing software, 0.225) |
| Foresters | 0.447 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Mobile location based services software, 0.325), (Web platform development software, 0.325), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Geographic information system, 0.225) |
| Gambling Cage Workers | 0.307 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325) |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Gambling Change Persons and Booth Cashiers | 0.286 | (Word processing software, 0.450), (Spreadsheet software, 0.375) |
| Gambling Managers | 0.387 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Human resources software, 0.275) |
| Gambling Surveillance Officers and Gambling Investigators | 0.397 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325) |
| Geographers | 0.375 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225), (Geographic information system, 0.225) |
| Highway Maintenance Workers | 0.421 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325) |
| Historians | 0.357 | (Document management software, 0.500), (Word processing software, 0.450), (Industrial control software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Music or sound editing software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (database management system software, 0.275), (Web page creation and editing software, 0.225), (Geographic information system, 0.225), (Information retrieval or search software, 0.100) |
| Human Resources Assistants, Except Payroll and Timekeeping | 0.341 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Desktop publishing software, 0.275), (Human resources software, 0.275), (Web page creation and editing software, 0.225) |
| Hydrologic Technicians | 0.343 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Geographic information system, 0.225) |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Hydrologists | 0.340 | (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Compliance software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Categorization or classification software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Geographic information system, 0.225) |
| Judges, Magistrate Judges, and Magistrates | 0.369 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Legal management software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Instant messaging software, 0.300), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Judicial Law Clerks | 0.476 | (Document management software, 0.500), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Information retrieval or search software, 0.100) |
| Legislators | 0.475 | (Document management software, 0.500), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Music or sound editing software, 0.350), (Development environment software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Desktop publishing software, 0.275), (Access software, 0.275), (Communications server software, 0.250) |
| Library Assistants, Clerical | 0.488 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Library software, 0.325), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (Information retrieval or search software, 0.100) |
| Library Technicians | 0.557 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Library software, 0.325), (Desktop publishing software, 0.275), (Web page creation and editing software, 0.225) |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers | 0.398 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Presentation software, 0.325), (Instant messaging software, 0.300), (Desktop publishing software, 0.275) |
| Mathematicians | 0.227 | (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Transaction server software, 0.300), (Desktop publishing software, 0.275), (Object or component oriented development software, 0.275), (database management system software, 0.275), (Enterprise application integration software, 0.275), (Program testing software, 0.225), (Network security or virtual private network VPN management software, 0.225), (Business intelligence and data analysis software, 0.175) |
| Meter Readers, Utilities | 0.428 | (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Charting software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (database reporting software, 0.275), (Geographic information system, 0.225) |
| Occupational Health and Safety Specialists | 0.491 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Web platform development software, 0.325), (Project management software, 0.300) |
| Parking Enforcement Workers | 0.494 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325) |
| Police and Sheriff's Patrol Officers | 0.452 | (Helpdesk or call center software, 0.650), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Geographic information system, 0.225) |
| Political Scientists | 0.400 | (Document management software, 0.500), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275), (Object or |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | component oriented development software, 0.275), (database management system software, 0.275), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Postal Service Clerks | 0.402 | (Time accounting software, 0.475), (Operating system software, 0.425), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300), (Human resources software, 0.275) |
| Postal Service Mail Carriers | 0.425 | (Time accounting software, 0.475), (Word processing software, 0.450), (Operating system software, 0.425), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Human resources software, 0.275) |
| Postal Service Mail Sorters, Processors, and Processing Machine Operators | 0.416 | (Bar coding software, 0.475), (Time accounting software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Point of sale POS software, 0.300), (database management system software, 0.275), (Human resources software, 0.275) |
| Postmasters and Mail Superintendents | 0.314 | (Time accounting software, 0.475), (Word processing software, 0.450), (Operating system software, 0.425), (Procurement software, 0.375), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Facilities management software, 0.325), (Point of sale POS software, 0.300), (Human resources software, 0.275) |
| Probation Officers and Correctional Treatment Specialists | 0.537 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Voice recognition software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Project management software, 0.300), (Web page creation and editing software, 0.225) |
| Procurement Clerks | 0.483 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Enterprise application integration software, 0.275) |
| Public Safety Telecommunicators | 0.462 | (Helpdesk or call center software, 0.650), (Word processing software, 0.450), (Internet browser software, 0.375), (Mobile messaging service software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Project management software, 0.300), (Geographic information system, 0.225) |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Recreation Workers | 0.513 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Charting software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Computer based training software, 0.325), (Instant messaging software, 0.300), (Desktop publishing software, 0.275) |
| Stationary Engineers and Boiler Operators | 0.320 | (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Facilities management software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300) |
| Subway and Streetcar Operators | 0.232 | (Word processing software, 0.450), (Office suite software, 0.350) |
| Tax Examiners and Collectors, and Revenue Agents | 0.506 | (Document management software, 0.500), (Word processing software, 0.450), (Tax preparation software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Human resources software, 0.275) |
| Traffic Technicians | 0.511 | (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Analytical or scientific software, 0.300), (Object or component oriented development software, 0.275), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175) |
| Transit and Railroad Police | 0.285 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325) |
| Transportation Inspectors | 0.317 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350) |
| Transportation Security Screeners | 0.360 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Human resources software, 0.275), (Object or component oriented development software, 0.275) |
| Urban and Regional Planners | 0.549 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Map creation software, 0.375), (database |

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*Table A 3.18 Government (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | user interface and query software, 0.375), (Compliance software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Development environment software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Computer aided design CAD software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Data mining software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Desktop communications software, 0.250), (Web page creation and editing software, 0.225), (Geographic information system, 0.225) |
| Water and Wastewater Treatment Plant and System Operators | 0.535 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Industrial control software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Compliance software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Geographic information system, 0.225) |
| Word Processors and Typists | 0.473 | (Document management software, 0.500), (Word processing software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Desktop publishing software, 0.275) |
| Zoologists and Wildlife Biologists | 0.398 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Mobile location based services software, 0.325), (Web platform development software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Object or component oriented development software, 0.275), (Geographic information system, 0.225) |

*Table A3.19 Agriculture, Forestry, Fishing, and Hunting*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Agricultural Equipment Operators | 0.539 | (Spreadsheet software, 0.375), (Map creation software, 0.375), (database user interface and query software, 0.375), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325) |
| Animal Breeders | 0.342 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Development environment software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Computer based training software, 0.325), (Analytical or scientific software, 0.300), (Desktop publishing software, 0.275) |

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*Table A 3.19 Agriculture, Forestry, Fishing, and Hunting (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Animal Trainers | 0.348 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Medical software, 0.325), (Project management software, 0.300), (Transaction server software, 0.300), (Web page creation and editing software, 0.225) |
| Fallers | 0.317 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Inventory management software, 0.325), (Accounting software, 0.325), (Analytical or scientific software, 0.300), (Geographic information system, 0.225) |
| Farm Labor Contractors | 0.448 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Web page creation and editing software, 0.225) |
| Farmers, Ranchers, and Other Agricultural Managers | 0.495 | (Time accounting software, 0.475), (Industrial control software, 0.450), (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Process mapping and design software, 0.400), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Electronic mail software, 0.350), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Mobile location based services software, 0.325), (Project management software, 0.300), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225), (Geographic information system, 0.225) |
| Farmworkers and Laborers, Crop, Nursery, and Greenhouse | 0.354 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Mobile location based services software, 0.325) |
| Farmworkers, Farm, Ranch, and Aquacultural Animals | 0.440 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350) |
| First-Line Supervisors of Farming, Fishing, and Forestry Workers | 0.364 | (Time accounting software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Expert system software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325), (Project management software, 0.300) |
| Graders and Sorters, Agricultural Products | 0.249 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Web platform development software, 0.325) |

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*Table A 3.19 Agriculture, Forestry, Fishing, and Hunting (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Logging Equipment Operators | 0.349 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Human resources software, 0.275) |

*Table A3.20 Administrative and Support Services*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Bill and Account Collectors | 0.613 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Optical character reader OCR or scanning software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Accounting software, 0.325), (Medical software, 0.325), (Categorization or classification software, 0.325), (Point of sale POS software, 0.300), (Access software, 0.275), (Information retrieval or search software, 0.100) |
| Commercial Divers | 0.543 | (Internet browser software, 0.375), (database user interface and query software, 0.375), (Analytical or scientific software, 0.300) |
| Crossing Guards and Flaggers | 0.378 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Human resources software, 0.275) |
| Data Entry Keyers | 0.336 | (Document management software, 0.500), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Cloud-based data access and sharing software, 0.325), (Video conferencing software, 0.325), (Medical software, 0.325), (Accounting software, 0.325) |
| First-Line Supervisors of Housekeeping and Janitorial Workers | 0.444 | (Helpdesk or call center software, 0.650), (Materials requirements planning logistics and supply chain software, 0.450), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Inventory management software, 0.325), (Facilities management software, 0.325), (Project management software, 0.300), (Web page creation and editing software, 0.225) |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers | 0.477 | (Time accounting software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Inventory management software, 0.325), (Web page creation and editing software, 0.225) |
| First-Line Supervisors of Security Workers | 0.416 | (Time accounting software, 0.475), (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Enterprise |

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*Table A 3.20 Administrative and Support Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| | | resource planning ERP software, 0.325), (Presentation software, 0.325) |
| Hazardous Materials Removal Workers | 0.265 | (Word processing software, 0.450), (Internet browser software, 0.375), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Facilities management software, 0.325), (Inventory management software, 0.325), (Enterprise application integration software, 0.275) |
| Human Resources Specialists | 0.466 | (Document management software, 0.500), (Time accounting software, 0.475), (Word processing software, 0.450), (Operating system software, 0.425), (Process mapping and design software, 0.400), (Internet browser software, 0.375), (Financial analysis software, 0.375), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Development environment software, 0.350), (Cloud-based data access and sharing software, 0.325), (Enterprise resource planning ERP software, 0.325), (Presentation software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Web platform development software, 0.325), (Configuration management software, 0.325), (Medical software, 0.325), (Analytical or scientific software, 0.300), (Project management software, 0.300), (Desktop publishing software, 0.275), (Enterprise system management software, 0.275), (database reporting software, 0.275), (Human resources software, 0.275), (database management system software, 0.275), (Object or component oriented development software, 0.275), (Enterprise application integration software, 0.275), (Data mining software, 0.275), (Application server software, 0.250), (Desktop communications software, 0.250), (Communications server software, 0.250), (Web page creation and editing software, 0.225), (Sales and marketing software, 0.225), (Geographic information system, 0.225), (Business intelligence and data analysis software, 0.175), (Information retrieval or search software, 0.100) |
| Janitors and Cleaners, Except Maids and House-keeping Cleaners | 0.222 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Cloud-based data access and sharing software, 0.325), (Desktop communications software, 0.250) |
| Landscaping and Groundskeeping Workers | 0.318 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Web page creation and editing software, 0.225) |
| Locksmiths and Safe Repairers | 0.291 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Map creation software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325) |
| Mail Clerks and Mail Machine Operators, Except Postal Service | 0.374 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Accounting software, 0.325), (Mailing and shipping software, 0.300) |

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*Table A 3.20 Administrative and Support Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Office Machine Operators, Except Computer | 0.540 | (Document management software, 0.500), (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Office suite software, 0.350), (Electronic mail software, 0.350), (Optical character reader OCR or scanning software, 0.350), (Presentation software, 0.325), (Desktop publishing software, 0.275), (Desktop communications software, 0.250) |
| Pest Control Workers | 0.481 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Video creation and editing software, 0.375), (database user interface and query software, 0.375), (Electronic mail software, 0.350), (Office suite software, 0.350), (Cloud-based data access and sharing software, 0.325), (Accounting software, 0.325), (Inventory management software, 0.325) |
| Pesticide Handlers, Sprayers, and Applicators, Vegetation | 0.485 | (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Inventory management software, 0.325), (Analytical or scientific software, 0.300), (Web page creation and editing software, 0.225), (Geographic information system, 0.225) |
| Private Detectives and Investigators | 0.445 | (Word processing software, 0.450), (Operating system software, 0.425), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (database user interface and query software, 0.375), (Graphics or photo imaging software, 0.350), (Electronic mail software, 0.350), (Office suite software, 0.350), (Presentation software, 0.325), (Web page creation and editing software, 0.225), (Information retrieval or search software, 0.100) |
| Refuse and Recyclable Material Collectors | 0.417 | (Time accounting software, 0.475), (Materials requirements planning logistics and supply chain software, 0.450), (database user interface and query software, 0.375), (Map creation software, 0.375), (Compliance software, 0.350), (Cloud-based data access and sharing software, 0.325), (Facilities management software, 0.325), (Mobile location based services software, 0.325), (Analytical or scientific software, 0.300) |
| Security and Fire Alarm Systems Installers | 0.331 | (Word processing software, 0.450), (Operating system software, 0.425), (Video creation and editing software, 0.375), (Spreadsheet software, 0.375), (Platform interconnectivity software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Computer aided design CAD software, 0.325), (Network monitoring software, 0.325) |
| Security Guards | 0.483 | (Transaction security and virus protection software, 0.475), (Word processing software, 0.450), (Spreadsheet software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Video conferencing software, 0.325), (Cloud-based data access and sharing software, 0.325), (Network monitoring software, 0.325) |
| Septic Tank Servicers and Sewer Pipe Cleaners | 0.313 | (Word processing software, 0.450), (Calendar and scheduling software, 0.450), (Spreadsheet software, 0.375), (Internet browser software, 0.375), (Accounting software, 0.325), (Route navigation software, 0.325) |
| Telemarketers | 0.384 | (Helpdesk or call center software, 0.650), (Word processing software, 0.450), (Interactive voice response software, 0.375), (Spreadsheet software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Video conferencing software, 0.325), (Access software, 0.275) |

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*Table A 3.20 Administrative and Support Services (cont'd.)*

| Title | AI Impact Score | Technology Skills |
|---|---|---|
| Travel Agents | 0.469 | (Calendar and scheduling software, 0.450), (Word processing software, 0.450), (Spreadsheet software, 0.375), (database user interface and query software, 0.375), (Customer relationship management CRM software, 0.375), (Office suite software, 0.350), (Electronic mail software, 0.350), (Presentation software, 0.325), (Enterprise resource planning ERP software, 0.325), (Video conferencing software, 0.325), (Accounting software, 0.325), (Business intelligence and data analysis software, 0.175) |
| Tree Trimmers and Pruners | 0.196 | (Word processing software, 0.450), (Spreadsheet software, 0.375), (Electronic mail software, 0.350), (Web page creation and editing software, 0.225) |

## 7d. Industry and (Skill, Skill Impact Score) Table

*Table A4. Skill-level scores for each industry*

| Industry | Technology Skills |
|---|---|
| Wholesale Trade | ('Document management software', 0.5), ('Internet directory services software', 0.475), ('Transaction security and virus protection software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Expert system software', 0.45), ('Materials requirements planning logistics and supply chain software', 0.45), ('Operating system software', 0.425), ('Cloud-based management software', 0.4), ('Process mapping and design software', 0.4), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Network conferencing software', 0.375), ('Video creation and editing software', 0.375), ('Authentication server software', 0.375), ('Procurement software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Network monitoring software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Computer aided design CAD software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Network security and virtual private network VPN equipment software', 0.325), ('Medical software', 0.325), ('Facilities management software', 0.325), ('Web platform development software', 0.325), ('Switch or router software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Instant messaging software', 0.3), ('Human resources software', 0.275), ('database management system software', 0.275), ('Enterprise application integration software', 0.275), ('Administration software', 0.275), ('Enterprise system management software', 0.275), ('Access software', 0.275), ('Desktop publishing software', 0.275), ('Data mining software', 0.275), ('Object or component oriented development software', 0.275), ('Content workflow software', 0.275), ('database reporting software', 0.275), ('Internet protocol IP multimedia subsystem software', 0.25), ('Desktop communications software', 0.25), ('Application server software', 0.25), ('Communications server software', 0.25), ('Network security or virtual private network VPN management software', 0.225), ('Geographic information system', 0.225), ('Web page creation and editing software', 0.225), ('Program testing software', 0.225), ('Sales and marketing software', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |
| Retail Trade | ('Helpdesk or call center software', 0.65), ('Backup or archival software', 0.55), ('Network connectivity terminal emulation software', 0.525), ('Document management software', 0.5), ('Time accounting software', 0.475), ('Internet directory services software', 0.475), |

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*Table A4. Skill-level scores for each industry (cont'd.)*

| Industry | Technology Skills |
|---|---|
| | ('Transaction security and virus protection software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Materials requirements planning logistics and supply chain software', 0.45), ('Industrial control software', 0.45), ('Object oriented database management software', 0.425), ('Operating system software', 0.425), ('Cloud-based management software', 0.4), ('Process mapping and design software', 0.4), ('Spreadsheet software', 0.375), ('Platform interconnectivity software', 0.375), ('Internet browser software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Video creation and editing software', 0.375), ('Procurement software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Voice synthesizer and recognition software', 0.325), ('Network monitoring software', 0.325), ('Configuration management software', 0.325), ('Computer aided manufacturing CAM software', 0.325), ('Metadata management software', 0.325), ('Computer based training software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Computer aided design CAD software', 0.325), ('Mobile location based services software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Medical software', 0.325), ('Facilities management software', 0.325), ('Web platform development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Point of sale POS software', 0.3), ('Instant messaging software', 0.3), ('Transaction server software', 0.3), ('Human resources software', 0.275), ('database management system software', 0.275), ('Enterprise application integration software', 0.275), ('Enterprise system management software', 0.275), ('Access software', 0.275), ('Desktop publishing software', 0.275), ('Data mining software', 0.275), ('Object or component oriented development software', 0.275), ('Content workflow software', 0.275), ('database reporting software', 0.275), ('Desktop communications software', 0.25), ('Label making software', 0.25), ('Communications server software', 0.25), ('Network security or virtual private network VPN management software', 0.225), ('Geographic information system', 0.225), ('Web page creation and editing software', 0.225), ('Program testing software', 0.225), ('Sales and marketing software', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |
| Finance and Insurance | ('Helpdesk or call center software', 0.65), ('Backup or archival software', 0.55), ('Document management software', 0.5), ('Time accounting software', 0.475), ('Transaction security and virus protection software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Expert system software', 0.45), ('Materials requirements planning logistics and supply chain software', 0.45), ('Object oriented database management software', 0.425), ('Operating system software', 0.425), ('Process mapping and design software', 0.4), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('Interactive voice response software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Network conferencing software', 0.375), ('Voice recognition software', 0.375), ('Video creation and editing software', 0.375), ('Mobile messaging service software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Charting software', 0.35), ('Compliance software', 0.35), ('Contact center software', 0.325), ('Configuration management software', 0.325), ('Computer based training software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Computer aided design CAD software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Medical software', 0.325), ('Network security and virtual private network VPN equipment software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Compiler and decompiler software', 0.3), ('Point of sale POS software', 0.3), ('Instant messaging software', 0.3), ('Transaction server software', 0.3), ('Human resources software', 0.275), ('database |

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*Table A4. Skill-level scores for each industry (cont'd.)*

| Industry | Technology Skills |
|---|---|
| | management system software', 0.275), ('Enterprise application integration software', 0.275), ('Enterprise system management software', 0.275), ('Access software', 0.275), ('Desktop publishing software', 0.275), ('Object or component oriented development software', 0.275), ('Content workflow software', 0.275), ('database reporting software', 0.275), ('Multi-media educational software', 0.25), ('Internet protocol IP multimedia subsystem software', 0.25), ('Desktop communications software', 0.25), ('Communications server software', 0.25), ('Fax software', 0.245), ('Web page creation and editing software', 0.225), ('Sales and marketing software', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |
| Educational Services | ('Spell checkers', 0.7), ('Backup or archival software', 0.55), ('Document management software', 0.5), ('Time accounting software', 0.475), ('Transaction security and virus protection software', 0.475), ('Word processing software', 0.45), ('Expert system software', 0.45), ('Calendar and scheduling software', 0.45), ('Industrial control software', 0.45), ('Object oriented database management software', 0.425), ('Operating system software', 0.425), ('Graphical user interface development software', 0.425), ('Dictionary software', 0.425), ('Device drivers or system software', 0.425), ('Cloud-based management software', 0.4), ('Process mapping and design software', 0.4), ('Spreadsheet software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Network conferencing software', 0.375), ('Map creation software', 0.375), ('Internet browser software', 0.375), ('Voice recognition software', 0.375), ('Video creation and editing software', 0.375), ('Legal management software', 0.375), ('Procurement software', 0.375), ('Storage networking software', 0.375), ('Portal server software', 0.375), ('Mobile messaging service software', 0.375), ('Customer relationship management CRM software', 0.375), ('Office suite software', 0.35), ('Development environment software', 0.35), ('Data conversion software', 0.35), ('Graphics or photo imaging software', 0.35), ('Electronic mail software', 0.35), ('Optical character reader OCR or scanning software', 0.35), ('Charting software', 0.35), ('Compliance software', 0.35), ('Music or sound editing software', 0.35), ('Network monitoring software', 0.325), ('Library software', 0.325), ('Medical software', 0.325), ('Configuration management software', 0.325), ('Computer aided manufacturing CAM software', 0.325), ('File versioning software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Computer based training software', 0.325), ('Accounting software', 0.325), ('Network security and virtual private network VPN equipment software', 0.325), ('Facilities management software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Metadata management software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Computer aided design CAD software', 0.325), ('Web platform development software', 0.325), ('Instant messaging software', 0.3), ('Foreign language software', 0.3), ('Transaction server software', 0.3), ('Clustering software', 0.3), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Human resources software', 0.275), ('Data mining software', 0.275), ('database management system software', 0.275), ('Enterprise system management software', 0.275), ('database reporting software', 0.275), ('Enterprise application integration software', 0.275), ('Object or component oriented development software', 0.275), ('Access software', 0.275), ('Desktop publishing software', 0.275), ('Content workflow software', 0.275), ('Multi-media educational software', 0.25), ('Desktop communications software', 0.25), ('Communications server software', 0.25), ('Application server software', 0.25), ('Program testing software', 0.225), ('Network security or virtual private network VPN management software', 0.225), ('Web page creation and editing software', 0.225), ('Geographic information system', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |
| Real Estate and Rental and Leasing | ('Document management software', 0.5), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Expert system software', 0.45), ('Industrial control software', 0.45), ('Operating system software', 0.425), ('Map creation software', 0.375), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer |

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*Table A4. Skill-level scores for each industry (cont'd.)*

| Industry | Technology Skills |
|---|---|
| | relationship management CRM software', 0.375), ('Voice recognition software', 0.375), ('Video creation and editing software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Route navigation software', 0.325), ('Computer aided design CAD software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Facilities management software', 0.325), ('Web platform development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Point of sale POS software', 0.3), ('Instant messaging software', 0.3), ('Access software', 0.275), ('Desktop publishing software', 0.275), ('Data mining software', 0.275), ('database reporting software', 0.275), ('Desktop communications software', 0.25), ('Geographic information system', 0.225), ('Web page creation and editing software', 0.225), ('Sales and marketing software', 0.225) |
| Health Care and Social Assistance | ('Spell checkers', 0.7), ('Helpdesk or call center software', 0.65), ('Storage media loading software', 0.6), ('Backup or archival software', 0.55), ('Document management software', 0.5), ('Time accounting software', 0.475), ('Transaction security and virus protection software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Expert system software', 0.45), ('Materials requirements planning logistics and supply chain software', 0.45), ('Industrial control software', 0.45), ('Object oriented database management software', 0.425), ('Operating system software', 0.425), ('Device drivers or system software', 0.425), ('Process mapping and design software', 0.4), ('Map creation software', 0.375), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('Pattern design software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Network conferencing software', 0.375), ('Video creation and editing software', 0.375), ('Voice recognition software', 0.375), ('Mobile messaging service software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Optical character reader OCR or scanning software', 0.35), ('Charting software', 0.35), ('Compliance software', 0.35), ('Music or sound editing software', 0.35), ('Computer based training software', 0.325), ('Metadata management software', 0.325), ('Categorization or classification software', 0.325), ('Computer aided manufacturing CAM software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Computer aided design CAD software', 0.325), ('Mobile location based services software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Action games', 0.325), ('Network security and virtual private network VPN equipment software', 0.325), ('Medical software', 0.325), ('Facilities management software', 0.325), ('Web platform development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Mobile operator specific application software', 0.3), ('Analytical or scientific software', 0.3), ('Point of sale POS software', 0.3), ('Instant messaging software', 0.3), ('Human resources software', 0.275), ('database management system software', 0.275), ('Enterprise application integration software', 0.275), ('Enterprise system management software', 0.275), ('Access software', 0.275), ('Desktop publishing software', 0.275), ('Object or component oriented development software', 0.275), ('database reporting software', 0.275), ('Multi-media educational software', 0.25), ('Desktop communications software', 0.25), ('Communications server software', 0.25), ('Geographic information system', 0.225), ('Web page creation and editing software', 0.225), ('Sales and marketing software', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |
| Arts, Entertainment, and Recreation | ('Document management software', 0.5), ('Time accounting software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Tax preparation software', 0.425), ('Object oriented database management software', 0.425), ('Operating system software', 0.425), ('Process mapping and design software', 0.4), ('Spreadsheet |

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*Table A4. Skill-level scores for each industry (cont'd.)*

| Industry | Technology Skills |
|---|---|
| | software', 0.375), ('Internet browser software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Network conferencing software', 0.375), ('Video creation and editing software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Music or sound editing software', 0.35), ('Configuration management software', 0.325), ('Computer based training software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('File versioning software', 0.325), ('Computer aided design CAD software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Medical software', 0.325), ('Web platform development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Point of sale POS software', 0.3), ('Instant messaging software', 0.3), ('Transaction server software', 0.3), ('Human resources software', 0.275), ('Enterprise application integration software', 0.275), ('database management system software', 0.275), ('Desktop publishing software', 0.275), ('Object or component oriented development software', 0.275), ('database reporting software', 0.275), ('Desktop communications software', 0.25), ('Web page creation and editing software', 0.225), ('Program testing software', 0.225), ('Sales and marketing software', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |
| Transportation and Warehousing | ('Helpdesk or call center software', 0.65), ('Backup or archival software', 0.55), ('Document management software', 0.5), ('Time accounting software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Expert system software', 0.45), ('Materials requirements planning logistics and supply chain software', 0.45), ('Industrial control software', 0.45), ('Aviation ground support software', 0.425), ('Operating system software', 0.425), ('Process mapping and design software', 0.4), ('Map creation software', 0.375), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('Portal server software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Video creation and editing software', 0.375), ('Flight control software', 0.375), ('Procurement software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Charting software', 0.35), ('Compliance software', 0.35), ('Computer based training software', 0.325), ('Computer aided manufacturing CAM software', 0.325), ('Metadata management software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Route navigation software', 0.325), ('Computer aided design CAD software', 0.325), ('Mobile location based services software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Facilities management software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Compiler and decompiler software', 0.3), ('Point of sale POS software', 0.3), ('Enterprise application integration software', 0.275), ('Enterprise system management software', 0.275), ('Desktop publishing software', 0.275), ('Object or component oriented development software', 0.275), ('database reporting software', 0.275), ('Internet protocol IP multimedia subsystem software', 0.25), ('Desktop communications software', 0.25), ('Application server software', 0.25), ('Label making software', 0.25), ('Communications server software', 0.25), ('Geographic information system', 0.225), ('Web page creation and editing software', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |
| Professional, Scientific, and Technical Services | ('Helpdesk or call center software', 0.65), ('Storage media loading software', 0.6), ('Backup or archival software', 0.55), ('Network connectivity terminal emulation software', 0.525), ('Document management software', 0.5), ('Time accounting software', 0.475), ('Transaction security and virus protection software', 0.475), ('Internet directory services software', 0.475), ('Word processing software', 0.45), ('Materials requirements planning logistics and supply chain software', 0.45), ('Expert system software', 0.45), ('Calendar and scheduling |

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*Table A4. Skill-level scores for each industry (cont'd.)*

| Industry | Technology Skills |
|---|---|
| | software', 0.45), ('Industrial control software', 0.45), ('Bridge software', 0.425), ('Object oriented database management software', 0.425), ('Operating system software', 0.425), ('LAN software', 0.425), ('Graphical user interface development software', 0.425), ('Tax preparation software', 0.425), ('Dictionary software', 0.425), ('Device drivers or system software', 0.425), ('License management software', 0.4), ('Cloud-based management software', 0.4), ('WAN switching software and firmware', 0.4), ('Process mapping and design software', 0.4), ('Spreadsheet software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Network conferencing software', 0.375), ('Computer imaging software', 0.375), ('Authentication server software', 0.375), ('Procedure management software', 0.375), ('Map creation software', 0.375), ('Platform interconnectivity software', 0.375), ('Internet browser software', 0.375), ('Risk management data and analysis software', 0.375), ('Pattern design software', 0.375), ('Network operation system software', 0.375), ('Voice recognition software', 0.375), ('Video creation and editing software', 0.375), ('Procurement software', 0.375), ('Storage networking software', 0.375), ('Portal server software', 0.375), ('Interactive voice response software', 0.375), ('Mobile messaging service software', 0.375), ('Customer relationship management CRM software', 0.375), ('Cloud-based protection or security software', 0.35), ('Office suite software', 0.35), ('Development environment software', 0.35), ('Network operating system enhancement software', 0.35), ('Data conversion software', 0.35), ('Graphics or photo imaging software', 0.35), ('Electronic mail software', 0.35), ('Optical character reader OCR or scanning software', 0.35), ('Charting software', 0.35), ('Compliance software', 0.35), ('Music or sound editing software', 0.35), ('Network monitoring software', 0.325), ('Route navigation software', 0.325), ('Library software', 0.325), ('Medical software', 0.325), ('Configuration management software', 0.325), ('Computer aided manufacturing CAM software', 0.325), ('Categorization or classification software', 0.325), ('File versioning software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Computer based training software', 0.325), ('Accounting software', 0.325), ('Optical network management software', 0.325), ('Network security and virtual private network VPN equipment software', 0.325), ('Facilities management software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Metadata management software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Computer aided design CAD software', 0.325), ('Mobile location based services software', 0.325), ('Web platform development software', 0.325), ('Switch or router software', 0.325), ('Software defined networking/ virtualization software', 0.3), ('Compiler and decompiler software', 0.3), ('Instant messaging software', 0.3), ('Mobile operator specific application software', 0.3), ('Foreign language software', 0.3), ('Transaction server software', 0.3), ('Manufacturing execution system MES software', 0.3), ('Point of sale POS software', 0.3), ('Clustering software', 0.3), ('Gateway software', 0.3), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Human resources software', 0.275), ('Data mining software', 0.275), ('Wireless software', 0.275), ('database management system software', 0.275), ('Enterprise system management software', 0.275), ('database reporting software', 0.275), ('Requirements analysis and system architecture software', 0.275), ('Enterprise application integration software', 0.275), ('Object or component oriented development software', 0.275), ('Administration software', 0.275), ('Access software', 0.275), ('Desktop publishing software', 0.275), ('Content workflow software', 0.275), ('Multi-media educational software', 0.25), ('Desktop communications software', 0.25), ('Communications server software', 0.25), ('Internet protocol IP multimedia subsystem software', 0.25), ('Label making software', 0.25), ('Application server software', 0.25), ('Program testing software', 0.225), ('Network security or virtual private network VPN management software', 0.225), ('Web page creation and editing software', 0.225), ('Geographic information system', 0.225), ('Sales and marketing software', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |
| Accommodation and Food Services | ('Time accounting software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Materials requirements planning logistics and supply chain software', 0.45), ('Operating system software', 0.425), ('Map creation software', 0.375), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer |

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*Table A4. Skill-level scores for each industry (cont'd.)*

| Industry | Technology Skills |
|---|---|
| | relationship management CRM software', 0.375), ('Video creation and editing software', 0.375), ('Procurement software', 0.375), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Compliance software', 0.35), ('Computer based training software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Facilities management software', 0.325), ('Web platform development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Point of sale POS software', 0.3), ('Instant messaging software', 0.3), ('Human resources software', 0.275), ('database management system software', 0.275), ('Desktop publishing software', 0.275), ('Object or component oriented development software', 0.275), ('Desktop communications software', 0.25), ('Communications server software', 0.25), ('Web page creation and editing software', 0.225), ('Business intelligence and data analysis software', 0.175) |
| Other Services Except Public Administration | ('Document management software', 0.5), ('Time accounting software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Industrial control software', 0.45), ('Operating system software', 0.425), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Network conferencing software', 0.375), ('Video creation and editing software', 0.375), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Music or sound editing software', 0.35), ('Computer based training software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Route navigation software', 0.325), ('Computer aided design CAD software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Medical software', 0.325), ('Facilities management software', 0.325), ('Web platform development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Point of sale POS software', 0.3), ('Instant messaging software', 0.3), ('Human resources software', 0.275), ('database management system software', 0.275), ('Desktop publishing software', 0.275), ('Data mining software', 0.275), ('database reporting software', 0.275), ('Desktop communications software', 0.25), ('Application server software', 0.25), ('Communications server software', 0.25), ('Geographic information system', 0.225), ('Web page creation and editing software', 0.225), ('Sales and marketing software', 0.225), ('Business intelligence and data analysis software', 0.175) |
| Information | ('Spell checkers', 0.7), ('Printer driver software', 0.525), ('Document management software', 0.5), ('Transaction security and virus protection software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Graphics card driver software', 0.45), ('Expert system software', 0.45), ('Industrial control software', 0.45), ('Graphical user interface development software', 0.425), ('Object oriented database management software', 0.425), ('Operating system software', 0.425), ('Process mapping and design software', 0.4), ('Map creation software', 0.375), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Voice recognition software', 0.375), ('Video creation and editing software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Optical character reader OCR or scanning software', 0.35), ('Data conversion software', 0.35), ('Music or sound editing software', 0.35), ('Configuration management software', 0.325), ('Computer based training software', 0.325), ('Metadata management software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Route navigation software', 0.325), ('File versioning software', 0.325), ('Computer aided design CAD software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Network security and virtual private network VPN equipment software', 0.325), ('Facilities management software', 0.325), ('Web platform |

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*Table A4. Skill-level scores for each industry (cont'd.)*

| Industry | Technology Skills |
|---|---|
| | development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Instant messaging software', 0.3), ('Clustering software', 0.3), ('database management system software', 0.275), ('Enterprise application integration software', 0.275), ('Desktop publishing software', 0.275), ('Data mining software', 0.275), ('Object or component oriented development software', 0.275), ('Content workflow software', 0.275), ('Internet protocol IP multimedia subsystem software', 0.25), ('Desktop communications software', 0.25), ('Communications server software', 0.25), ('Network security or virtual private network VPN management software', 0.225), ('Geographic information system', 0.225), ('Web page creation and editing software', 0.225), ('Program testing software', 0.225), ('Sales and marketing software', 0.225), ('Information retrieval or search software', 0.1) |
| Manufacturing | ('Network connectivity terminal emulation software', 0.525), ('Document management software', 0.5), ('Time accounting software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Expert system software', 0.45), ('Materials requirements planning logistics and supply chain software', 0.45), ('Industrial control software', 0.45), ('Graphical user interface development software', 0.425), ('Operating system software', 0.425), ('Cloud-based management software', 0.4), ('WAN switching software and firmware', 0.4), ('License management software', 0.4), ('Process mapping and design software', 0.4), ('Map creation software', 0.375), ('Computer aided design CAD and computer aided manufacturing CAM system', 0.375), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Video creation and editing software', 0.375), ('Procedure management software', 0.375), ('Procurement software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Optical character reader OCR or scanning software', 0.35), ('Compliance software', 0.35), ('Configuration management software', 0.325), ('Computer aided manufacturing CAM software', 0.325), ('Computer based training software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('File versioning software', 0.325), ('Computer aided design CAD software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Library software', 0.325), ('Medical software', 0.325), ('Facilities management software', 0.325), ('Web platform development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Compiler and decompiler software', 0.3), ('Point of sale POS software', 0.3), ('Transaction server software', 0.3), ('Instant messaging software', 0.3), ('Requirements analysis and system architecture software', 0.275), ('Human resources software', 0.275), ('database management system software', 0.275), ('Enterprise application integration software', 0.275), ('Enterprise system management software', 0.275), ('Access software', 0.275), ('Desktop publishing software', 0.275), ('Object or component oriented development software', 0.275), ('Content workflow software', 0.275), ('database reporting software', 0.275), ('Internet protocol IP multimedia subsystem software', 0.25), ('Desktop communications software', 0.25), ('Application server software', 0.25), ('Label making software', 0.25), ('Network security or virtual private network VPN management software', 0.225), ('Geographic information system', 0.225), ('Program testing software', 0.225), ('Sales and marketing software', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |
| Construction | ('Document management software', 0.5), ('Time accounting software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Expert system software', 0.45), ('Materials requirements planning logistics and supply chain software', 0.45), ('Industrial control software', 0.45), ('Operating system software', 0.425), ('License management software', 0.4), ('Process mapping and design software', 0.4), ('Map creation software', 0.375), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query |

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*Table A4. Skill-level scores for each industry (cont'd.)*

| Industry | Technology Skills |
|---|---|
| | software', 0.375), ('Customer relationship management CRM software', 0.375), ('Video creation and editing software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Optical character reader OCR or scanning software', 0.35), ('Compliance software', 0.35), ('Computer based training software', 0.325), ('Computer aided manufacturing CAM software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Route navigation software', 0.325), ('Computer aided design CAD software', 0.325), ('Mobile location based services software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Facilities management software', 0.325), ('Web platform development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Human resources software', 0.275), ('Enterprise application integration software', 0.275), ('Access software', 0.275), ('database reporting software', 0.275), ('Network security or virtual private network VPN management software', 0.225), ('Web page creation and editing software', 0.225), ('Information retrieval or search software', 0.1) |
| Utilities | ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Industrial control software', 0.45), ('Graphical user interface development software', 0.425), ('Operating system software', 0.425), ('Process mapping and design software', 0.4), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Compliance software', 0.35), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Computer aided design CAD software', 0.325), ('Mobile location based services software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Facilities management software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Clustering software', 0.3), ('Desktop publishing software', 0.275), ('Object or component oriented development software', 0.275), ('Application server software', 0.25), ('Geographic information system', 0.225), ('Business intelligence and data analysis software', 0.175) |
| Management of Companies and Enterprises | ('Document management software', 0.5), ('Word processing software', 0.45), ('Process mapping and design software', 0.4), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('database user interface and query software', 0.375), ('Video creation and editing software', 0.375), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Cloud-based data access and sharing software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Medical software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Human resources software', 0.275), ('Desktop publishing software', 0.275), ('database reporting software', 0.275), ('Web page creation and editing software', 0.225) |
| Mining, Quarrying, and Oil and Gas Extraction | ('Time accounting software', 0.475), ('Word processing software', 0.45), ('Industrial control software', 0.45), ('Operating system software', 0.425), ('Process mapping and design software', 0.4), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Procurement software', 0.375), ('Development environment software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Cloud-based data access and sharing software', 0.325), ('Computer aided design CAD software', 0.325), ('Mobile location based services software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Facilities management software', 0.325), ('Switch or router software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical |

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*Table A4. Skill-level scores for each industry (cont'd.)*

| Industry | Technology Skills |
|---|---|
| | or scientific software', 0.3), ('database management system software', 0.275), ('Object or component oriented development software', 0.275), ('Internet protocol IP multimedia subsystem software', 0.25), ('Application server software', 0.25), ('Web page creation and editing software', 0.225), ('Business intelligence and data analysis software', 0.175) |
| Government | ('Helpdesk or call center software', 0.65), ('Data compression software', 0.525), ('Document management software', 0.5), ('Bar coding software', 0.475), ('Time accounting software', 0.475), ('Transaction security and virus protection software', 0.475), ('Word processing software', 0.45), ('Expert system software', 0.45), ('Calendar and scheduling software', 0.45), ('Industrial control software', 0.45), ('Operating system software', 0.425), ('Tax preparation software', 0.425), ('Cloud-based management software', 0.4), ('Process mapping and design software', 0.4), ('Spreadsheet software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Map creation software', 0.375), ('Platform interconnectivity software', 0.375), ('Internet browser software', 0.375), ('Voice recognition software', 0.375), ('Video creation and editing software', 0.375), ('Legal management software', 0.375), ('Procurement software', 0.375), ('Flight control software', 0.375), ('Mobile messaging service software', 0.375), ('Customer relationship management CRM software', 0.375), ('Office suite software', 0.35), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Electronic mail software', 0.35), ('Optical character reader OCR or scanning software', 0.35), ('Charting software', 0.35), ('Compliance software', 0.35), ('Music or sound editing software', 0.35), ('Network monitoring software', 0.325), ('Library software', 0.325), ('Medical software', 0.325), ('Configuration management software', 0.325), ('Categorization or classification software', 0.325), ('File versioning software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Computer based training software', 0.325), ('Accounting software', 0.325), ('Facilities management software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Metadata management software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Computer aided design CAD software', 0.325), ('Mobile location based services software', 0.325), ('Web platform development software', 0.325), ('Instant messaging software', 0.3), ('Transaction server software', 0.3), ('Point of sale POS software', 0.3), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Human resources software', 0.275), ('Data mining software', 0.275), ('database management system software', 0.275), ('Enterprise system management software', 0.275), ('database reporting software', 0.275), ('Enterprise application integration software', 0.275), ('Object or component oriented development software', 0.275), ('Access software', 0.275), ('Desktop publishing software', 0.275), ('Content workflow software', 0.275), ('Desktop communications software', 0.25), ('Communications server software', 0.25), ('Application server software', 0.25), ('Program testing software', 0.225), ('Network security or virtual private network VPN management software', 0.225), ('Web page creation and editing software', 0.225), ('Geographic information system', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |
| Agriculture, Forestry, Fishing, and Hunting | ('Document management software', 0.5), ('Time accounting software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Expert system software', 0.45), ('Industrial control software', 0.45), ('Operating system software', 0.425), ('Process mapping and design software', 0.4), ('Map creation software', 0.375), ('Spreadsheet software', 0.375), ('Internet browser software', 0.375), ('database user interface and query software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Computer based training software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Mobile location based services software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Medical software', 0.325), ('Web platform development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Transaction server software', 0.3), |

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*Table A4. Skill-level scores for each industry (cont'd.)*

| Industry | Technology Skills |
|---|---|
| | ('Human resources software', 0.275), ('Desktop publishing software', 0.275), ('Geographic information system', 0.225), ('Web page creation and editing software', 0.225) |
| Administrative and Support Services | ('Helpdesk or call center software', 0.65), ('Document management software', 0.5), ('Time accounting software', 0.475), ('Transaction security and virus protection software', 0.475), ('Word processing software', 0.45), ('Calendar and scheduling software', 0.45), ('Materials requirements planning logistics and supply chain software', 0.45), ('Operating system software', 0.425), ('Process mapping and design software', 0.4), ('Map creation software', 0.375), ('Spreadsheet software', 0.375), ('Platform interconnectivity software', 0.375), ('Internet browser software', 0.375), ('Interactive voice response software', 0.375), ('Financial analysis software', 0.375), ('database user interface and query software', 0.375), ('Customer relationship management CRM software', 0.375), ('Video creation and editing software', 0.375), ('Development environment software', 0.35), ('Graphics or photo imaging software', 0.35), ('Office suite software', 0.35), ('Electronic mail software', 0.35), ('Optical character reader OCR or scanning software', 0.35), ('Compliance software', 0.35), ('Network monitoring software', 0.325), ('Configuration management software', 0.325), ('Categorization or classification software', 0.325), ('Video conferencing software', 0.325), ('Cloud-based data access and sharing software', 0.325), ('Route navigation software', 0.325), ('Computer aided design CAD software', 0.325), ('Mobile location based services software', 0.325), ('Accounting software', 0.325), ('Presentation software', 0.325), ('Inventory management software', 0.325), ('Medical software', 0.325), ('Facilities management software', 0.325), ('Web platform development software', 0.325), ('Enterprise resource planning ERP software', 0.325), ('Project management software', 0.3), ('Analytical or scientific software', 0.3), ('Point of sale POS software', 0.3), ('Mailing and shipping software', 0.3), ('Human resources software', 0.275), ('database management system software', 0.275), ('Enterprise application integration software', 0.275), ('Enterprise system management software', 0.275), ('Access software', 0.275), ('Desktop publishing software', 0.275), ('Data mining software', 0.275), ('Object or component oriented development software', 0.275), ('database reporting software', 0.275), ('Desktop communications software', 0.25), ('Application server software', 0.25), ('Communications server software', 0.25), ('Geographic information system', 0.225), ('Web page creation and editing software', 0.225), ('Sales and marketing software', 0.225), ('Business intelligence and data analysis software', 0.175), ('Information retrieval or search software', 0.1) |

## 7e. Number of Employees per Industry: data sourced from the U.S. Department of Labor

*Table A5. Number of Employees per Industry in 2023*

| Industry | # of Employees (2023) |
|---|---|
| Wholesale Trade | 3,013,860 |
| Retail Trade | 12,439,539 |
| Finance and Insurance | 4,621,398 |
| Educational Services | 9,604,156 |
| Real Estate and Rental and Leasing | 815,866 |
| Health Care and Social Assistance | 14,694,483 |
| Arts, Entertainment, and Recreation | 840,579 |
| Transportation and Warehousing | 5,043,434 |
| Professional, Scientific, and Technical Services | 8,341,555 |
| Accommodation and Food Services | 12,433,677 |
| Other Services Except Public Administration | 2,553,321 |
| Information | 1,595,723 |
| Manufacturing | 8,233,147 |
| Construction | 5,069,319 |
| Utilities | 189,939 |
| Management of Companies and Enterprises | 318,205 |
| Mining, Quarrying, and Oil and Gas Extraction | 209,463 |
| Government | 7,223,036 |
| Agriculture, Forestry, Fishing, and Hunting | 333,973 |
| Administrative and Support Services | 4,964,008 |

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# Impact of AI on workers in the United States

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