



Workforce Transformation: Preparing for Jobs and Skills in the Age of AI

How will artificial intelligence reshape employment? This presentation explores the impact of AI on jobs and the skills needed to thrive in the evolving workforce.

The AI Workforce Shift

- **2.4 million jobs will be fully replaced** by AI and automation, eliminating these roles entirely
 - *Examples: Data entry clerks, cashiers, certain administrative assistants, and customer service representatives*
- **12 million workers** will need to **transition into new roles** or acquire new skills as AI reshapes their industries
 - *Examples: Salespeople shifting to consultative roles, manufacturing workers managing AI-driven production, and paralegals focusing on high-value research*
- Most other jobs will be **transformed** as AI enhances work rather than replaces workers
 - *Examples: Doctors using AI for diagnostics, teachers incorporating AI tools, and construction workers leveraging AI-powered project planning*

Agenda

- **AI's role in workforce trends**
- **Job demand forecasts**
- **Key skills for future work**
- **How individuals and organizations can prepare**

AI's Role in Workforce Trends

AI is redefining work— how are jobs, skills, and industries evolving in this new era

AI's Influence on Work: A Historical Perspective

- **Industrial Revolution:**
 - Mechanization replaced manual labor but created entirely new industries
- **Digital Revolution:**
 - Automation changed office work but expanded tech jobs
- **AI Revolution:**
 - AI is augmenting decision-making, requiring new skills to engage in human-machine collaboration

Workforce Transformation: Preparing for Jobs and Skills in the Age of AI

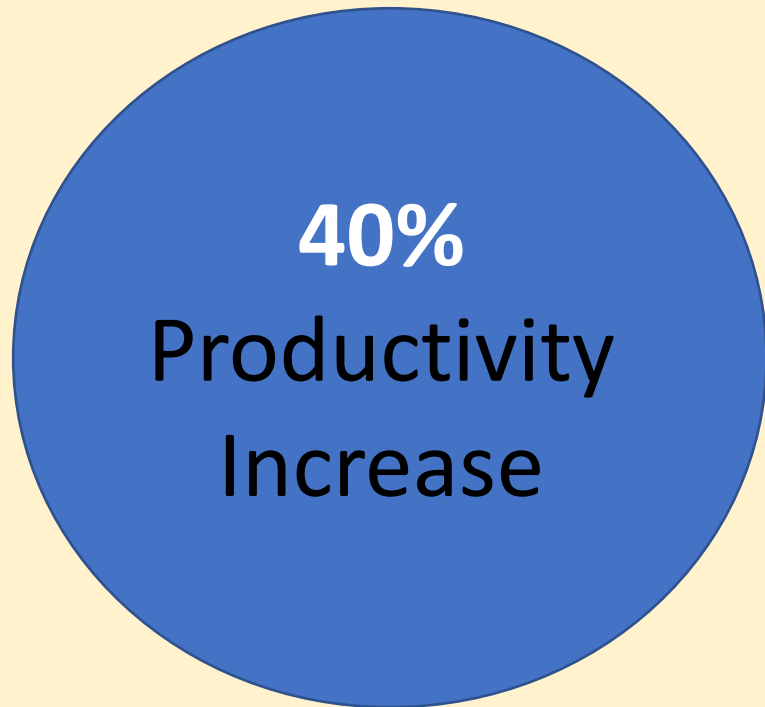
According to McKinsey research:

- **Less than 5%** of jobs can be fully automated, but
- **60%** of jobs have at least **30% of tasks** that could be automated
- AI is not replacing jobs – it's changing how work gets done

What does this mean for you:

- **The AI revolution isn't an all-or-nothing scenario**
- **Most jobs will be transformed rather than eliminated**
- **Workers need to adapt to new human-machine partnerships**
- **This affects virtually every occupation and industry**

AI Productivity Impact: Stanford University Study



Highest Productivity Gains:


- Writing, editing tasks
- Code development
- Data summarization, analysis
- Research synthesis

The Opportunity

Bridge the gap between
technology potential
and workforce

Source: Noy, S., & Zhang, W. (2023). "Experimental Evidence on the Productivity Effects of Generative Artificial Intelligence." Stanford Digital Economy Lab Working Paper. <https://www.science.org/doi/10.1126/science.adh2586>

The AI Skills Gap



76%

Percentage of Workers Feeling Unprepared for AI-related Skills

Key Workforce Concerns:

- **Uncertainty about which AI skills will be most valuable**
- **Lack of formal training programs in workplaces**
- **Concerns about keeping pace with rapidly evolving AI**
- **Anxiety about job security and role transformation**

Source: Noy, S., & Zhang, W. (2023). "Experimental Evidence on the Productivity Effects of Generative Artificial Intelligence." Stanford Digital Economy Lab Working Paper. <https://www.science.org/doi/10.1126/science.adh2586>

Job Forecasts by Occupation 10-Year Outlook

The demand for AI-related skills is outpacing supply. There's a clear need for reskilling and upskilling to keep pace with AI-driven workplace changes

Employment Projections: Two Views

By Occupation

- These projections estimate future demand for specific jobs or roles (e.g., registered nurses, software developers, construction laborers).

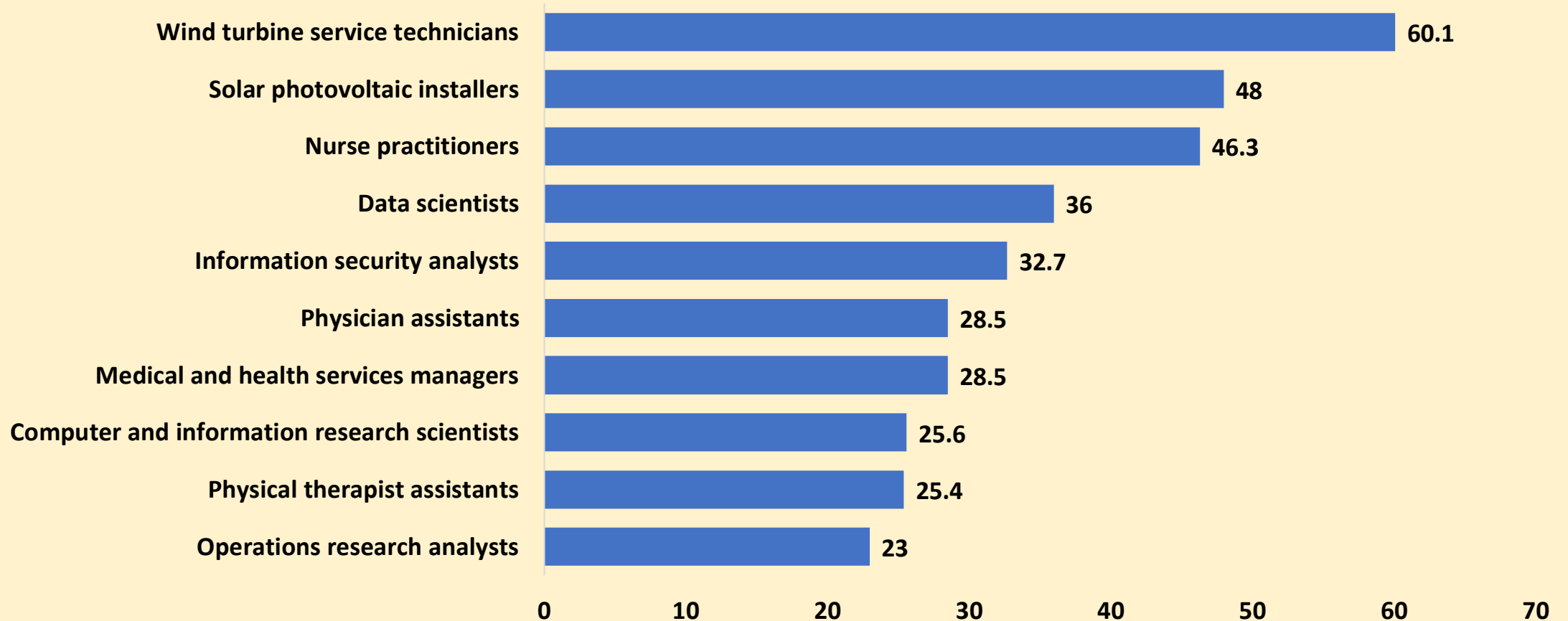
By Industry

- These projections estimate future employment levels within different sectors of the economy (e.g., healthcare, manufacturing, retail, finance).

Key Difference:

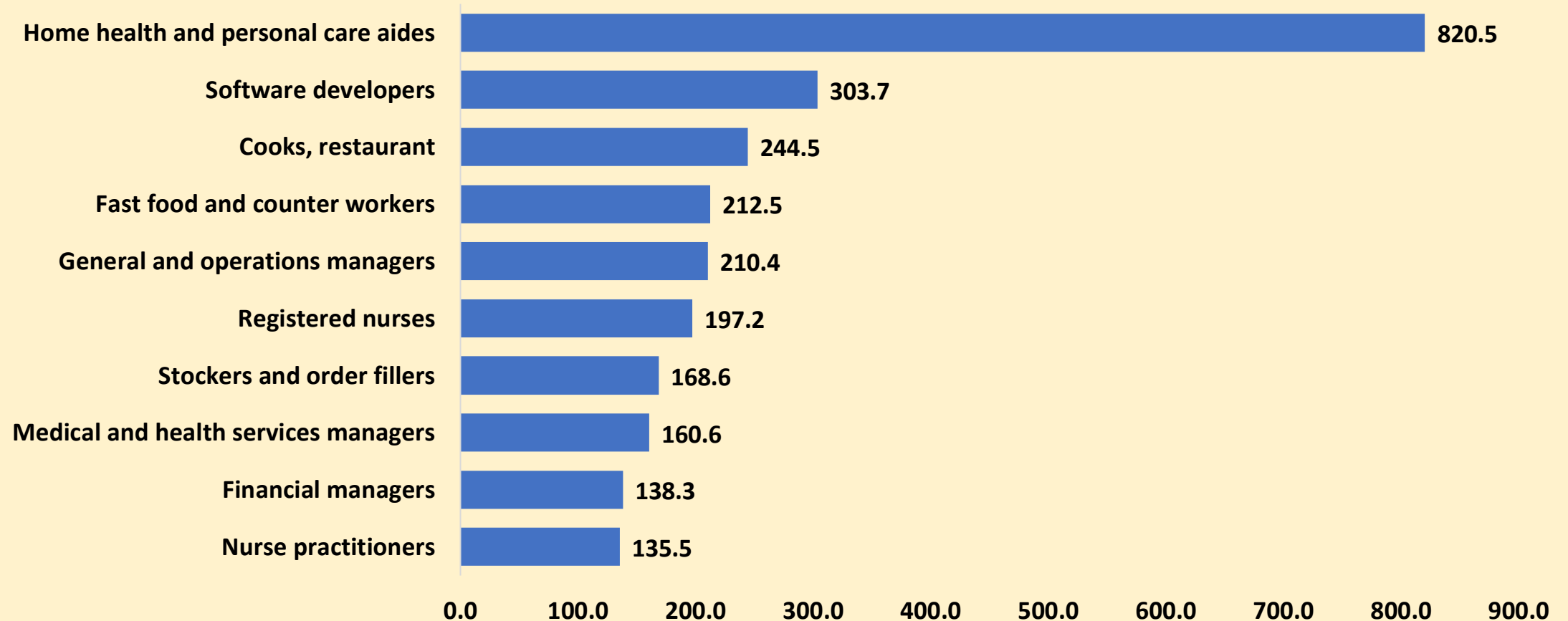
- Industry projections focus on the economic sectors where jobs will be created or lost.
- Occupation projections focus on specific job roles and the skills needed for future employment.

Fastest Growing Occupations U.S. (Percent Change in Jobs 2023-2033)



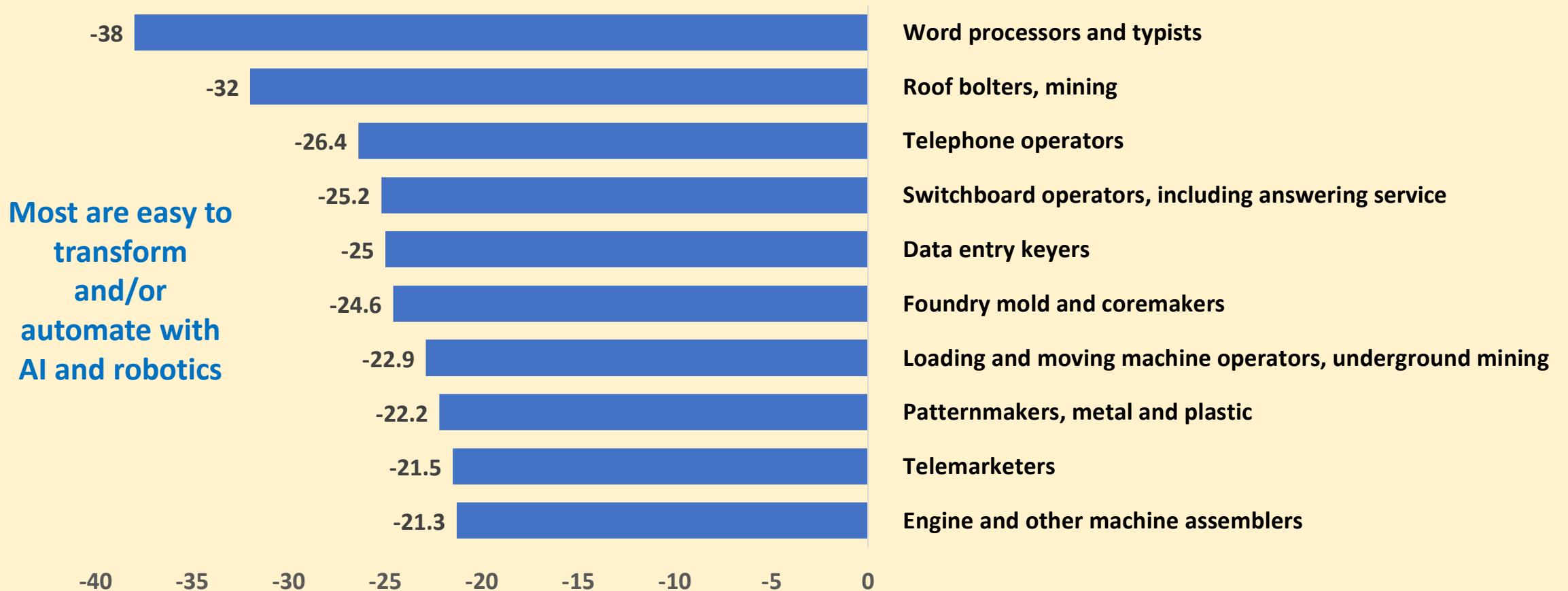
Source: Bureau of Labor Statistics

Occupations with Most Job Growth, U.S. (**Numeric Change**, Thousands of Jobs 2023-2033)



Source: Bureau of Labor Statistics

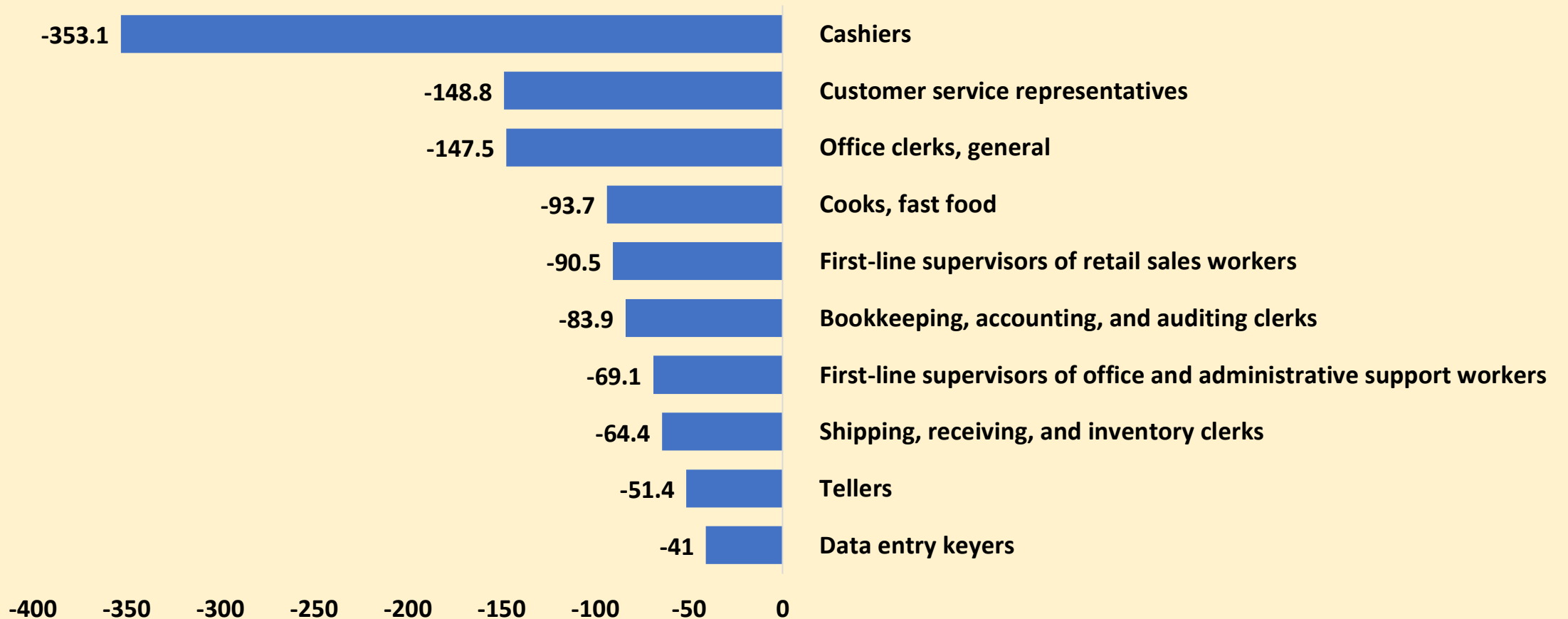
Fastest Declining Occupations U.S. (Percent Change in Jobs 2023-2033)



Source: Bureau of Labor Statistics

Largest Job Declines, U.S.

(Numeric Change, Thousands of Jobs 2023-2033)



Source: Bureau of Labor Statistics

Questions for Consideration

Based on these projections, do you think your industry or role is more likely to be **transformed, displaced, or expanded** by AI?

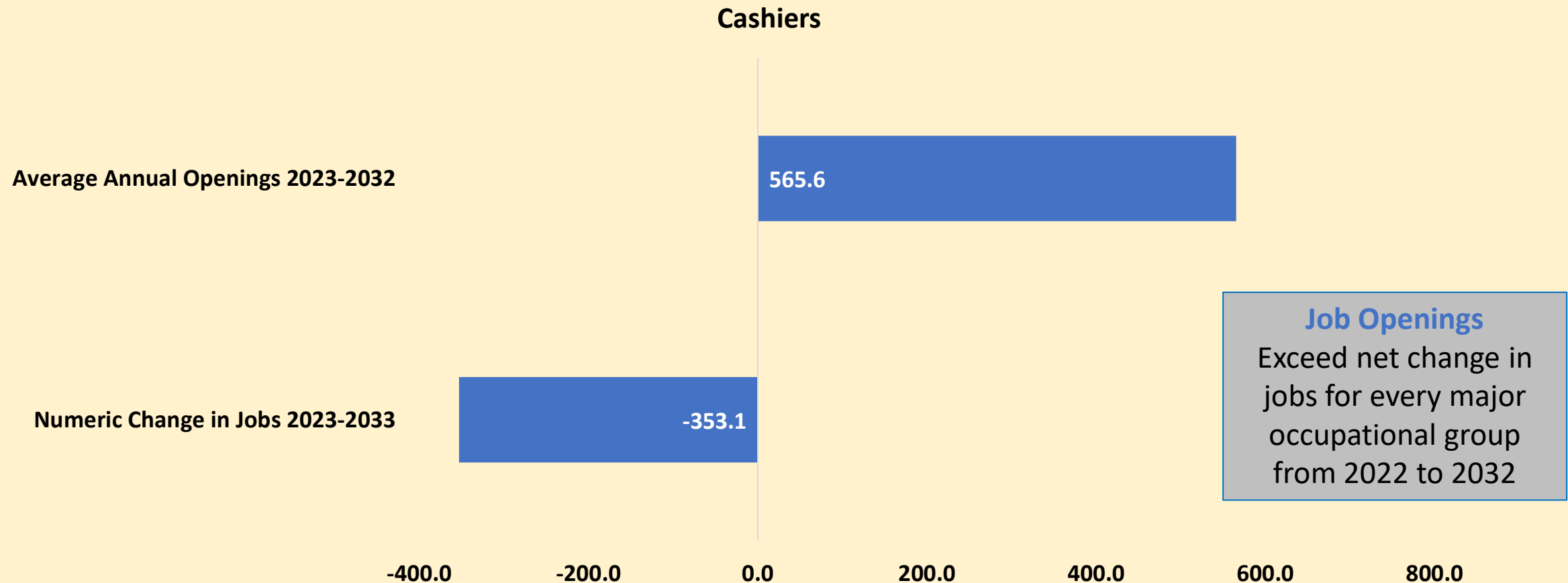
How do you see AI impacting your **day-to-day** work?"

Openings vs. Numeric Change

Numeric Job Change: Represents how many net new jobs are expected to be added over the 10-year period. This is the net increase/decrease in employment.

Number of Openings: Includes new jobs **PLUS** replacement needs (jobs vacated due to retirements, career changes, etc.). **Openings are often much higher** than numeric change because they include turnover.

Numeric Change Vs. Total Job Openings Over 10 Years (thousands), United States



Source: Bureau of Labor Statistics

U.S. (thousands) Average Annual Openings: Management Occupations, Top 10



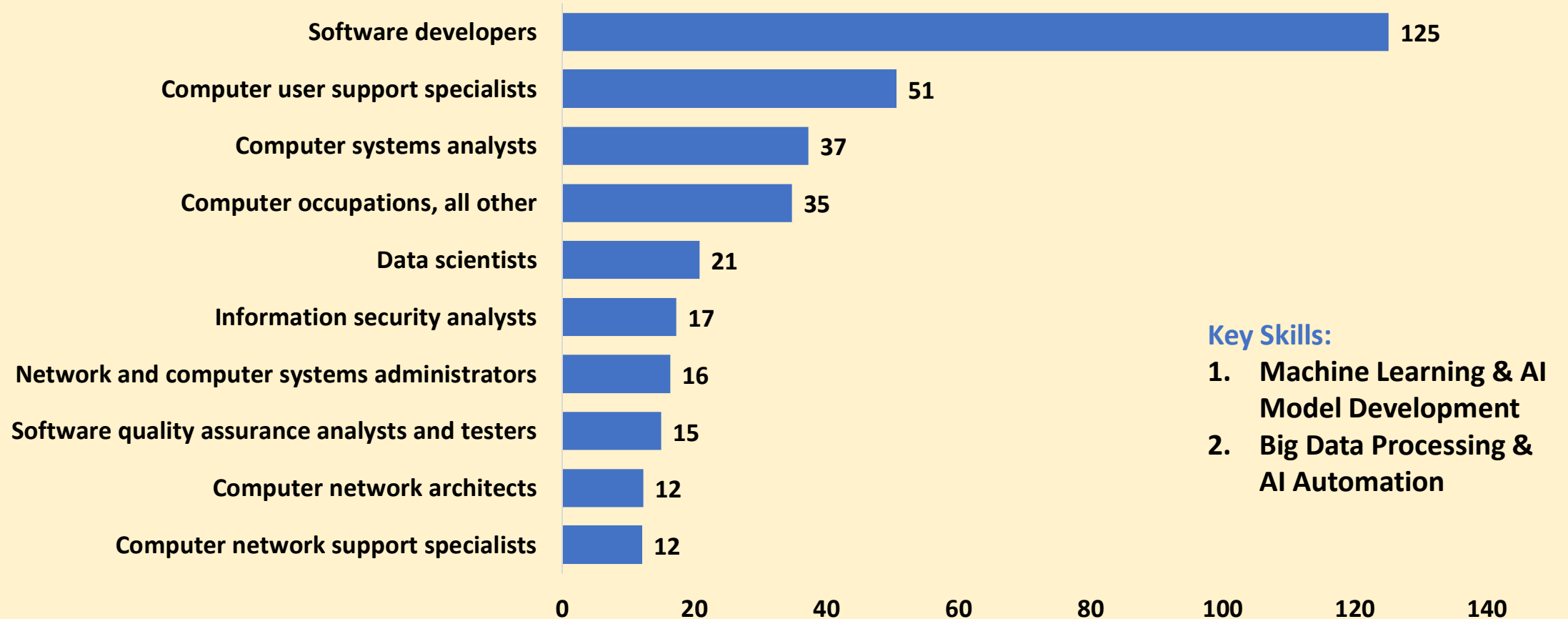
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Business & Financial Occupations, Top 10



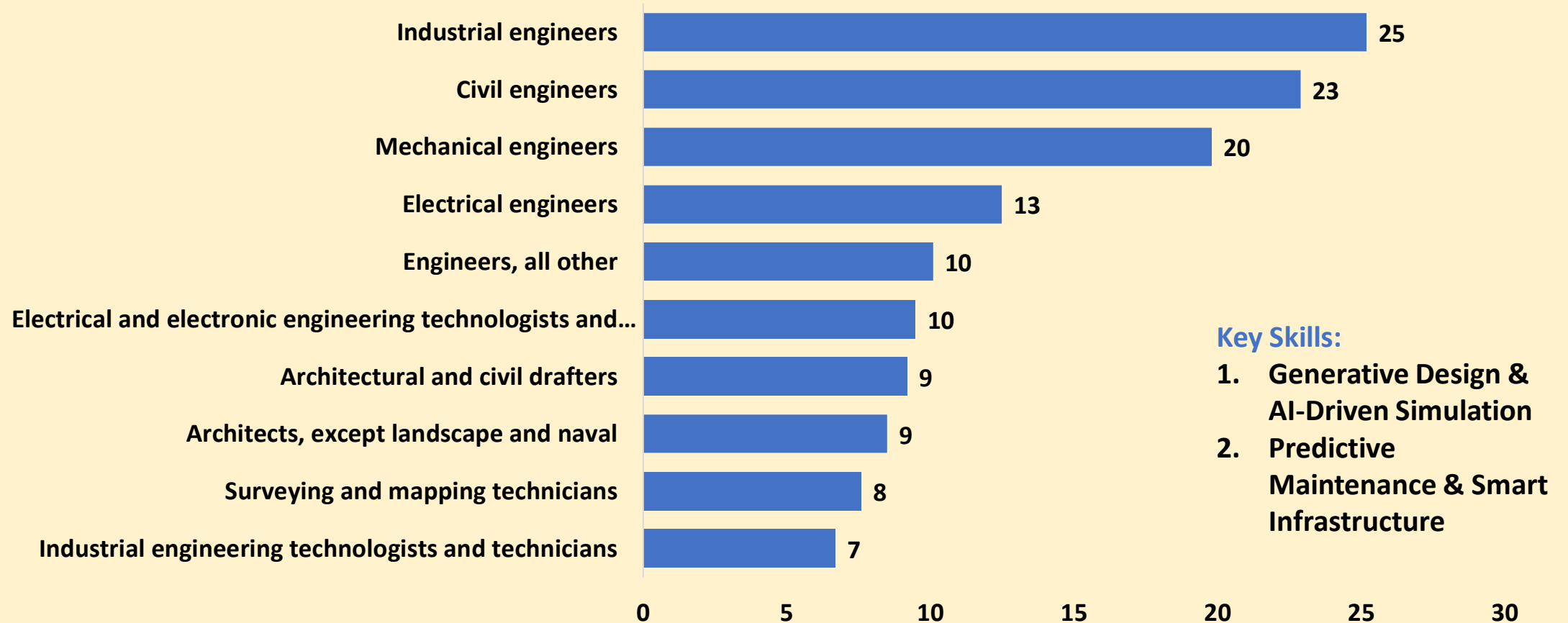
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Computer & Mathematical Occupations, Top 10



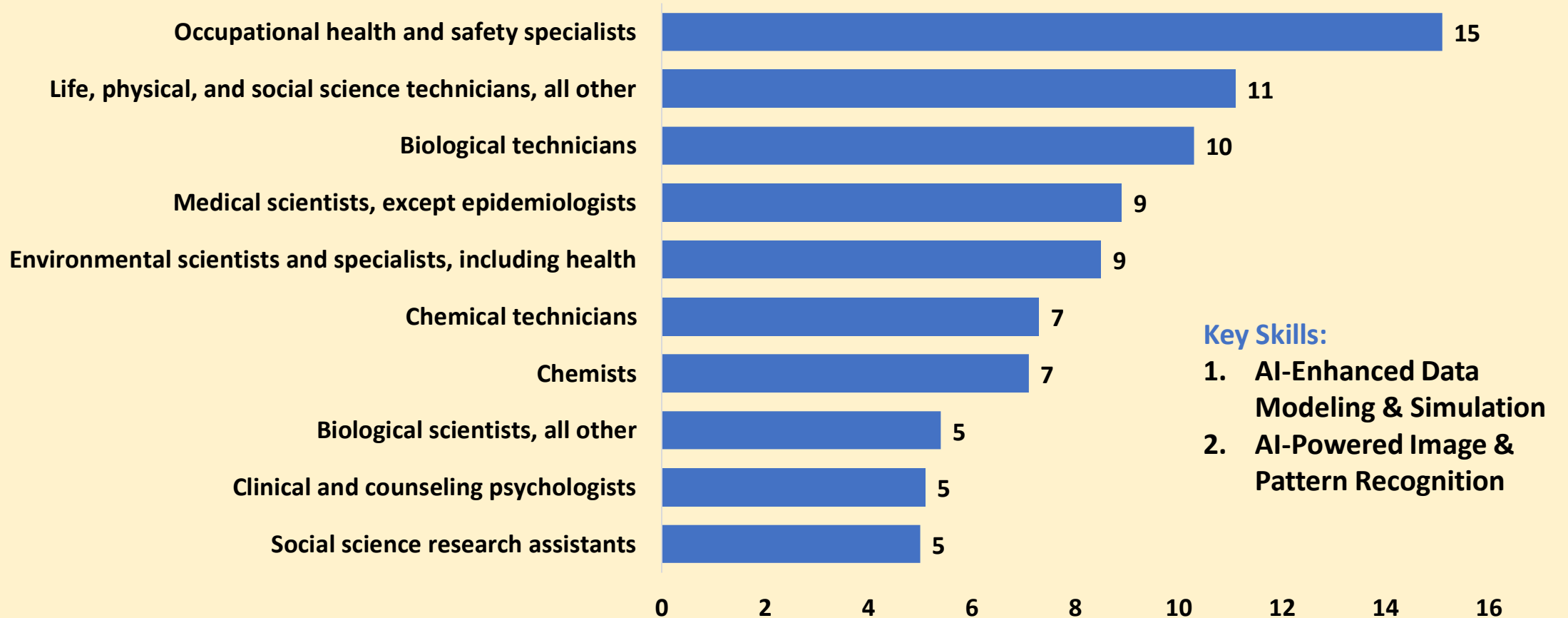
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Architecture & Engineering Occupations, Top 10



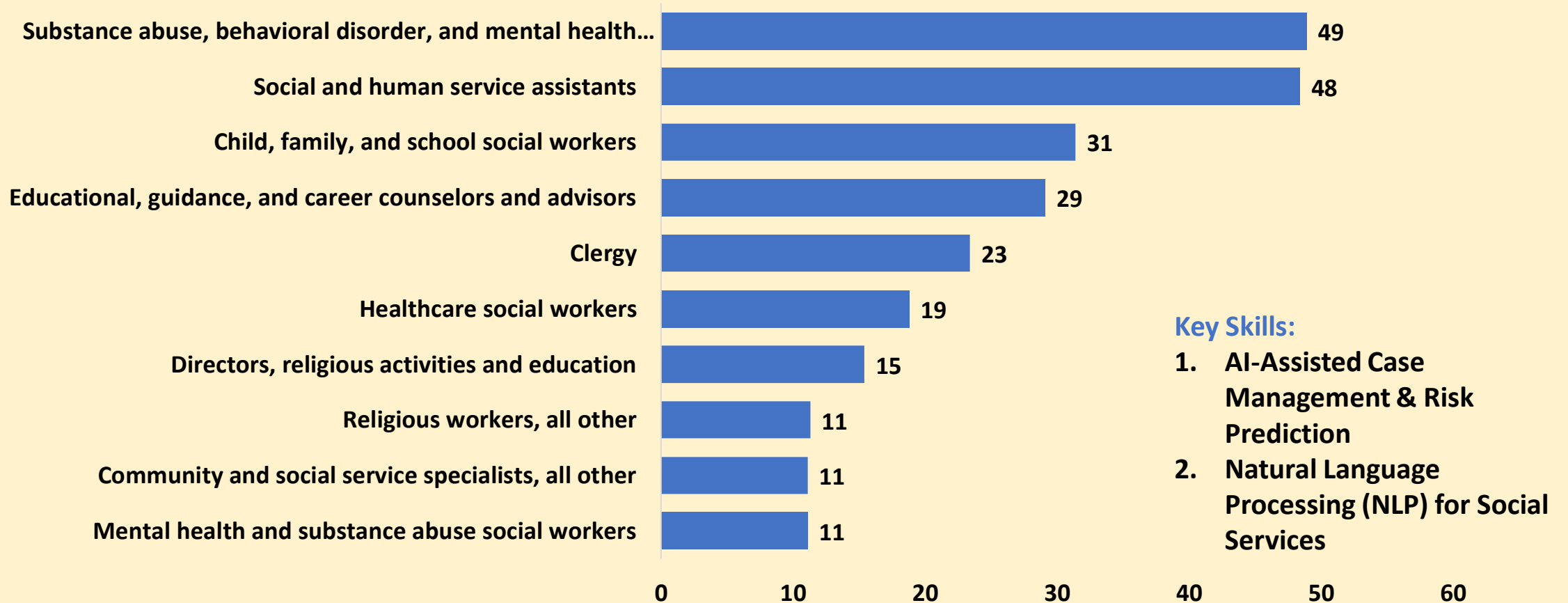
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Life/Physical/Social Science Occupations, Top 10



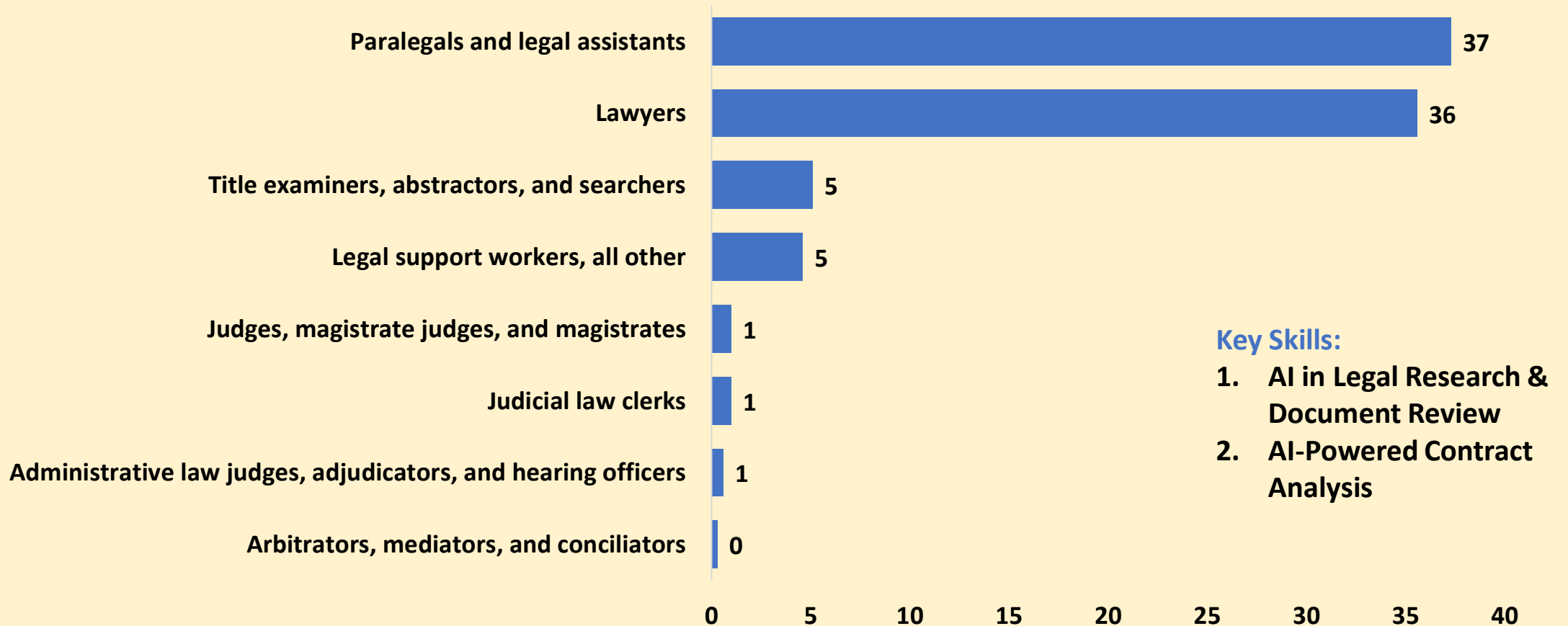
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Community/Social Service Occupations, Top 10



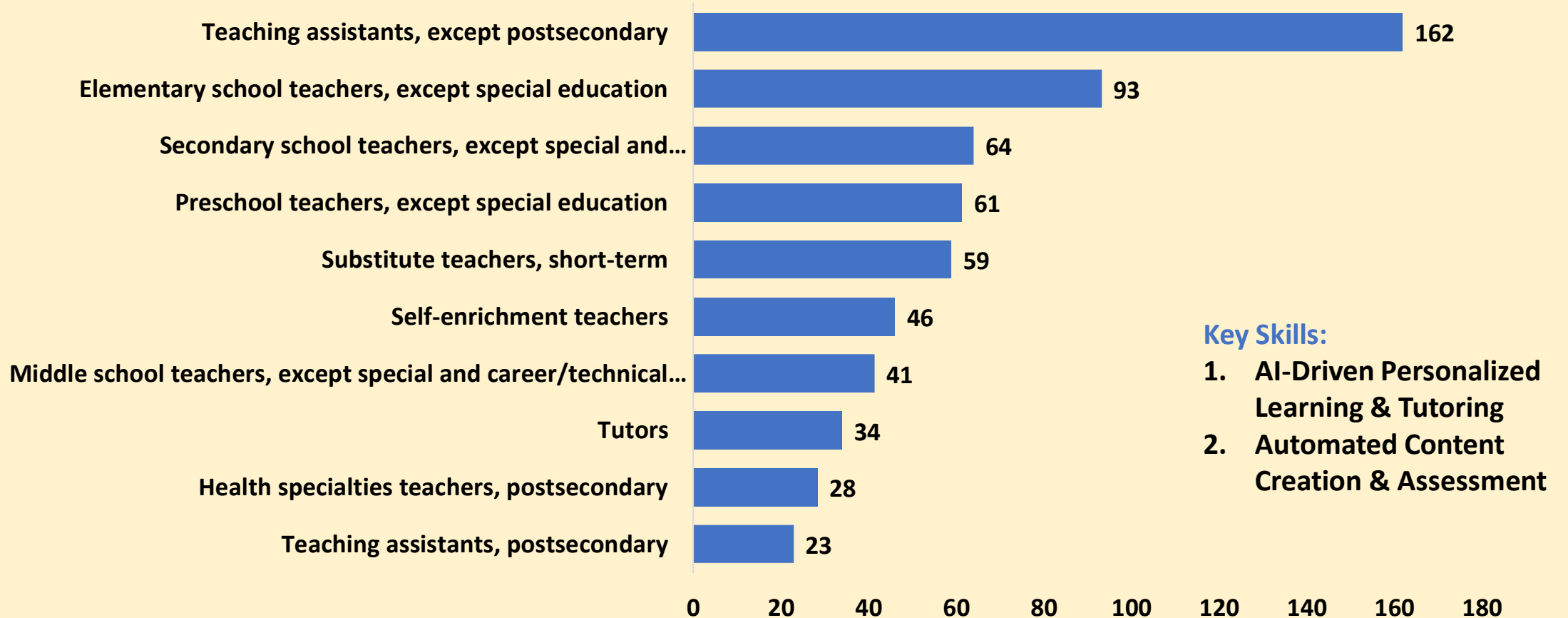
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Legal Occupations, Top 10



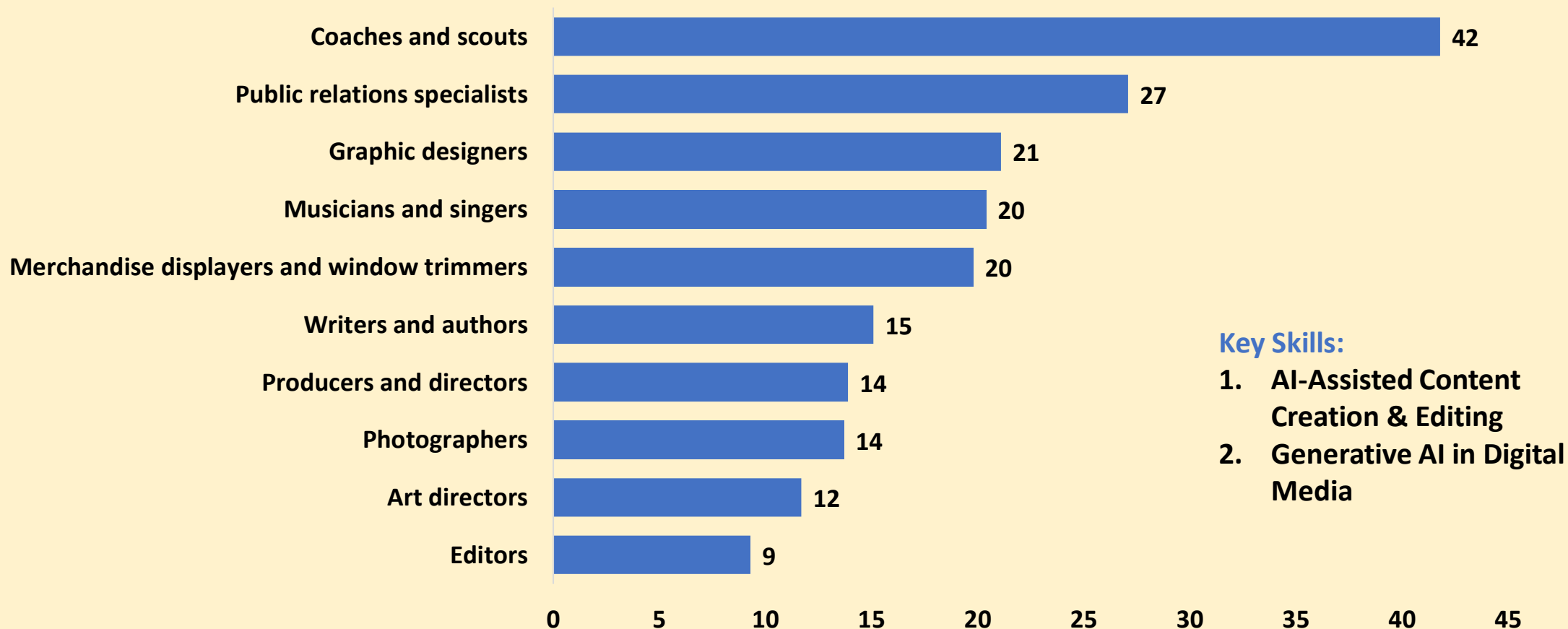
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Educational Instruction/Library Occupations, Top 10



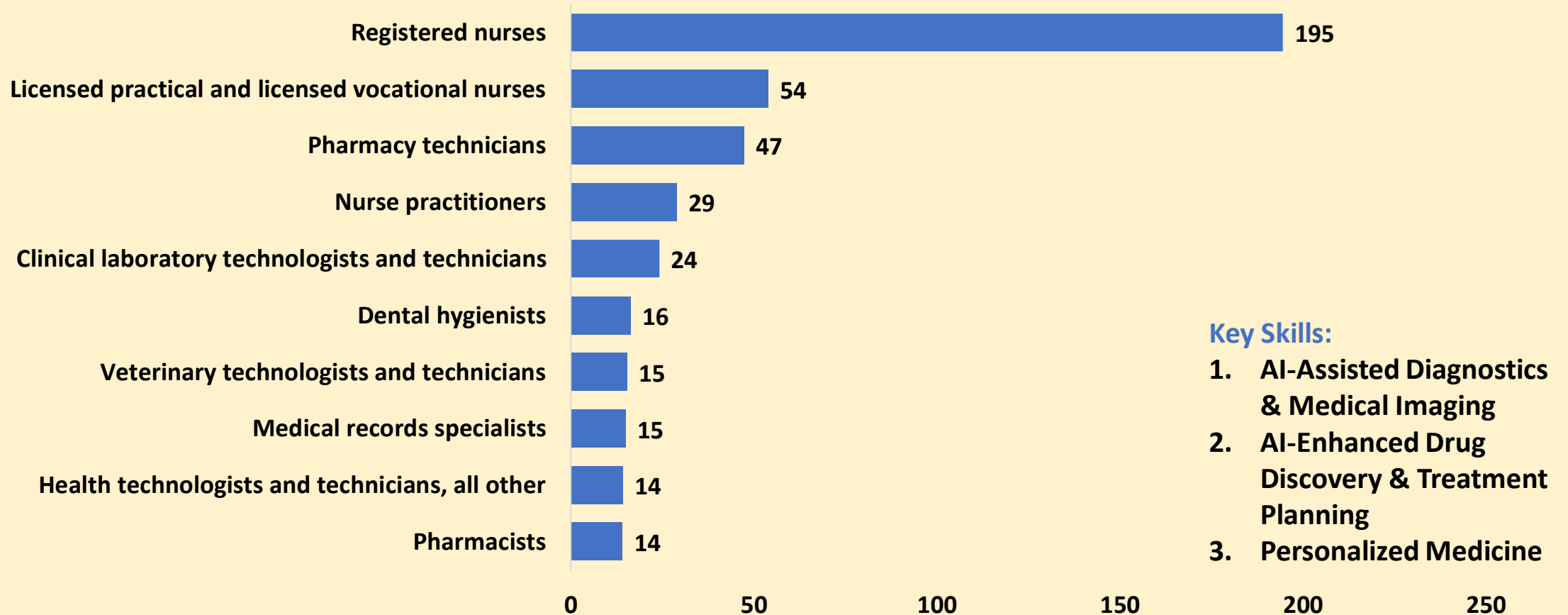
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Arts/Design/Entertainment/Sports/Media Occupations, Top 10



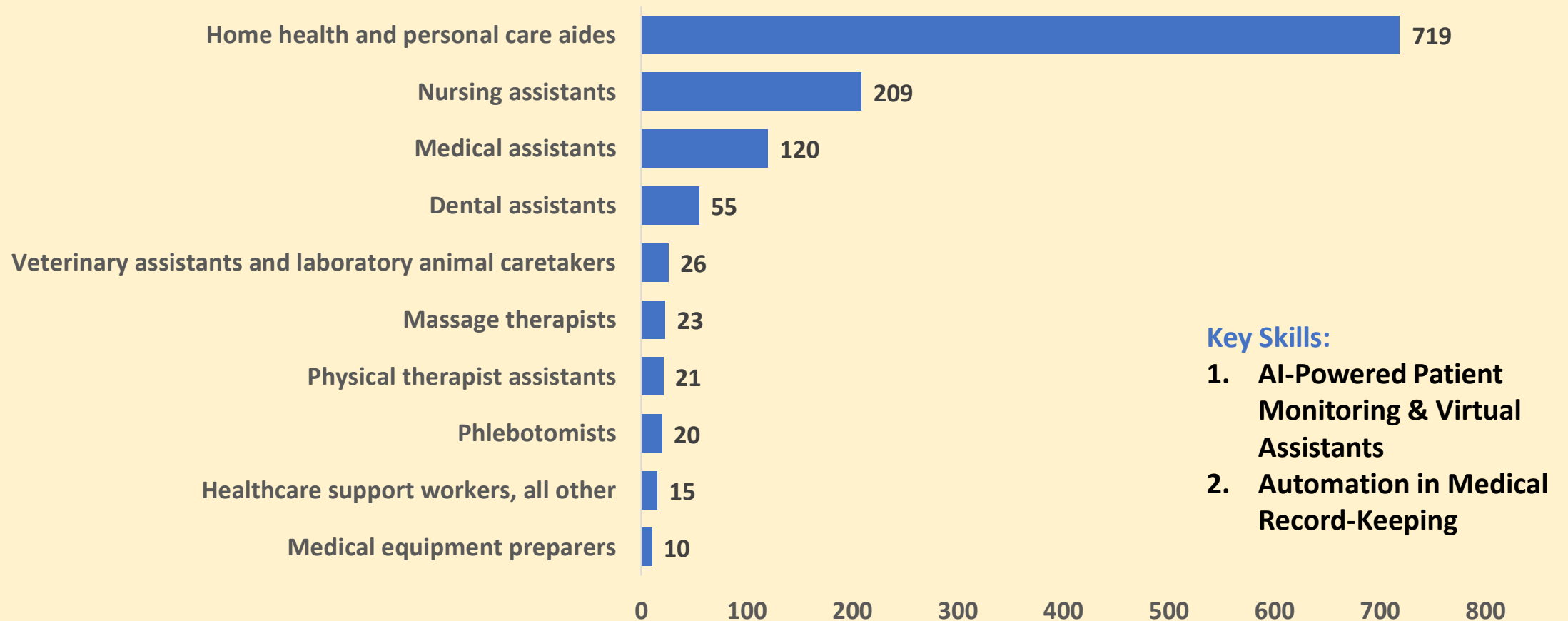
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Healthcare Practitioners and Technical Occupations, Top 10



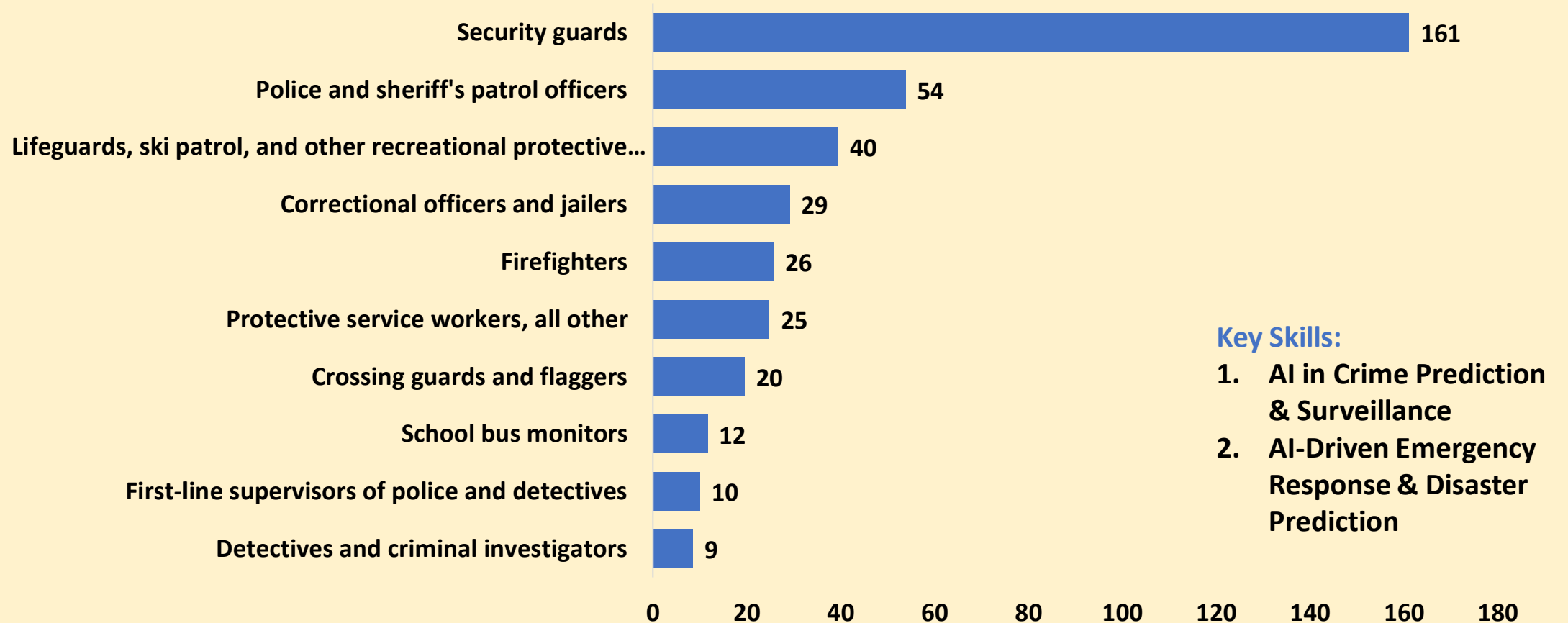
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Healthcare Support Occupations, Top 10



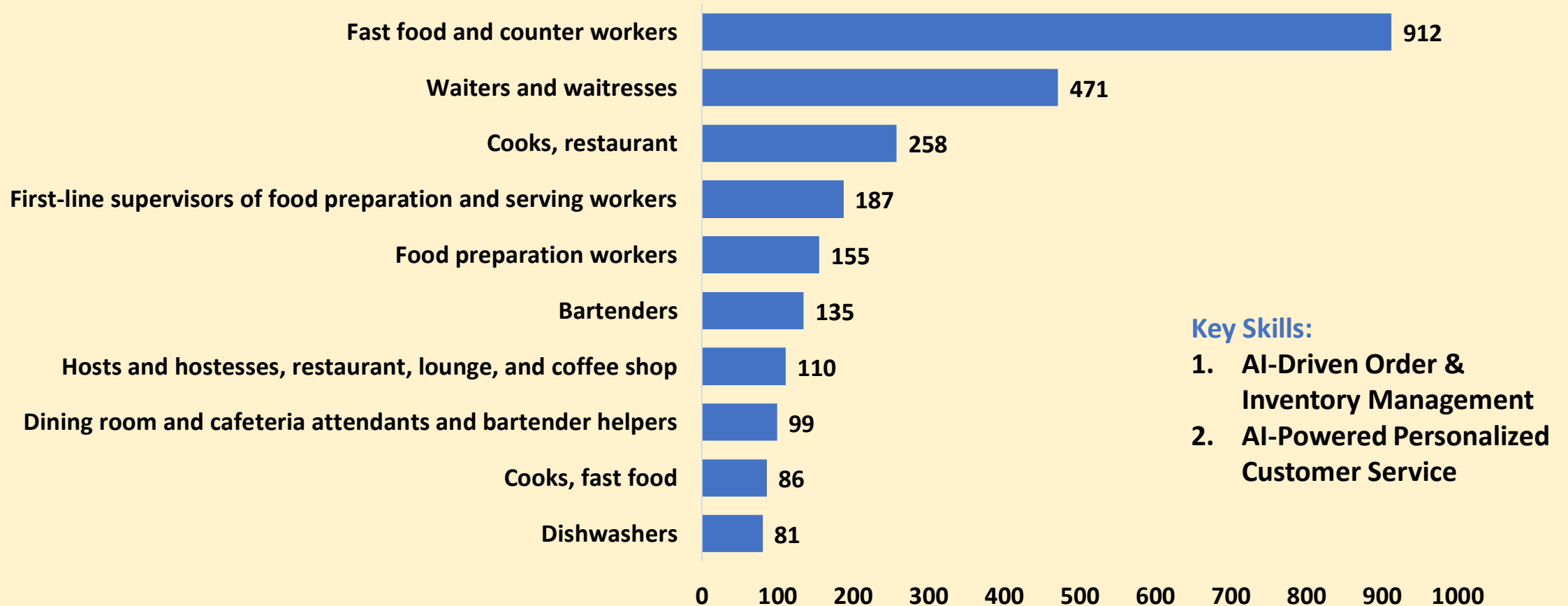
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Protective Service Occupations, Top 10



Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Food Preparation and Service Occupations, Top 10



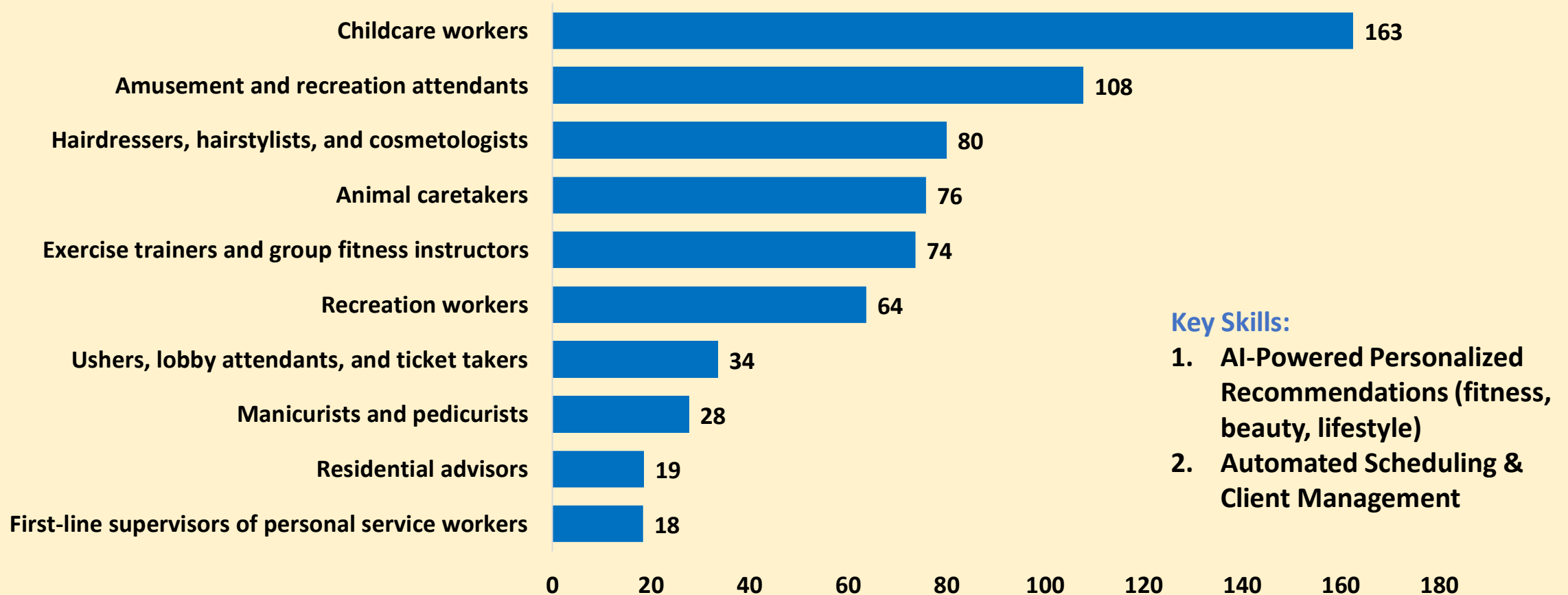
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Building and Grounds Cleaning and Maintenance Occupations, Top 10



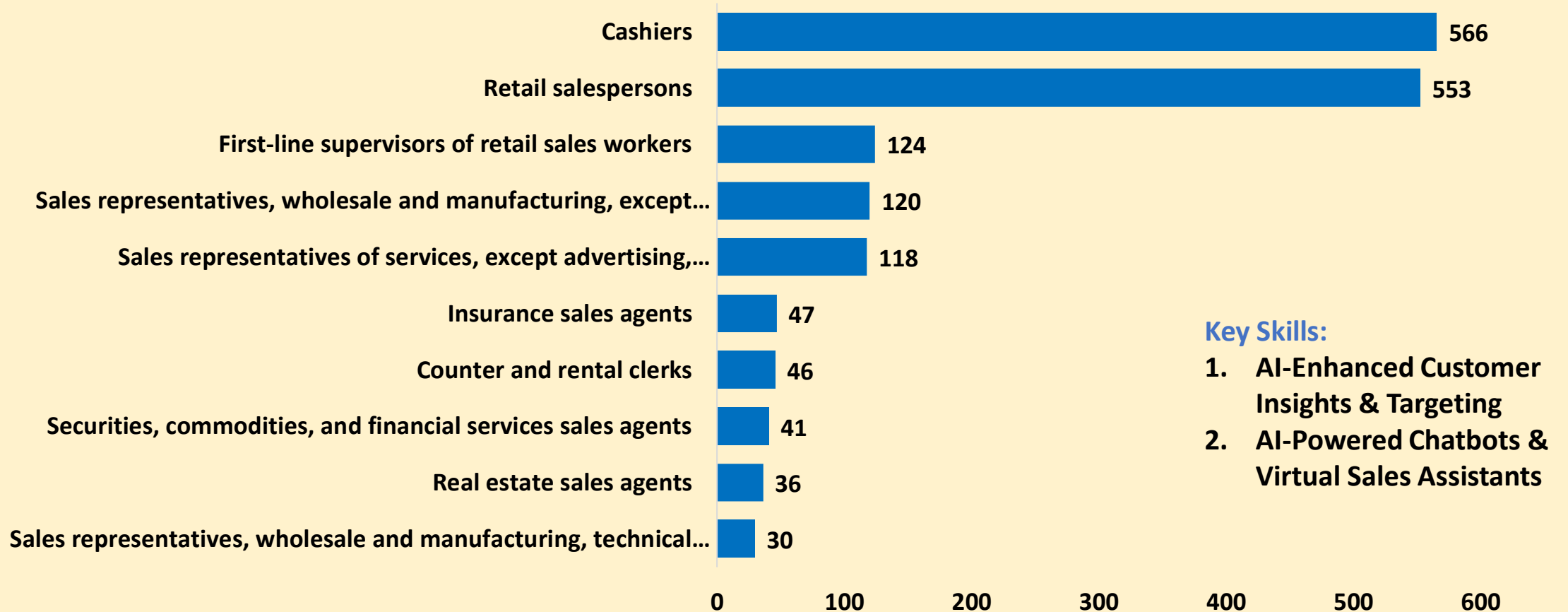
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Personal Care and Service Occupations, Top 10



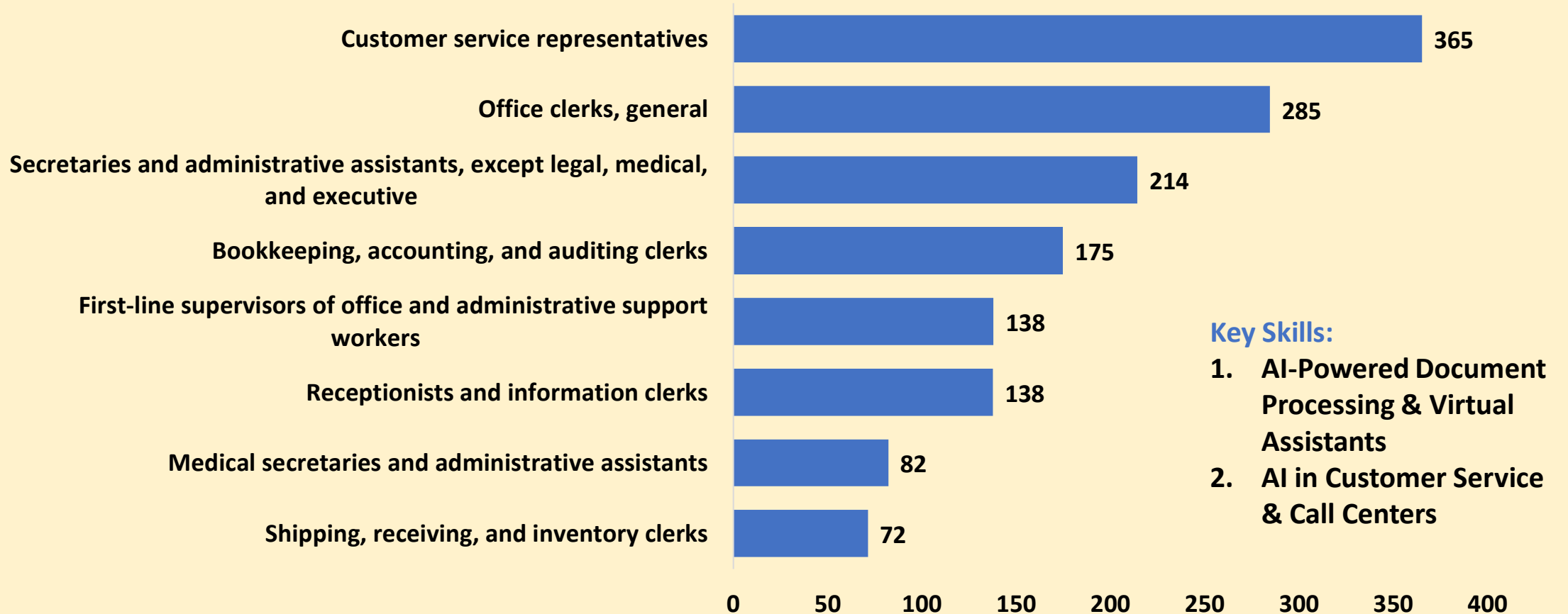
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Sales Occupations, Top 10



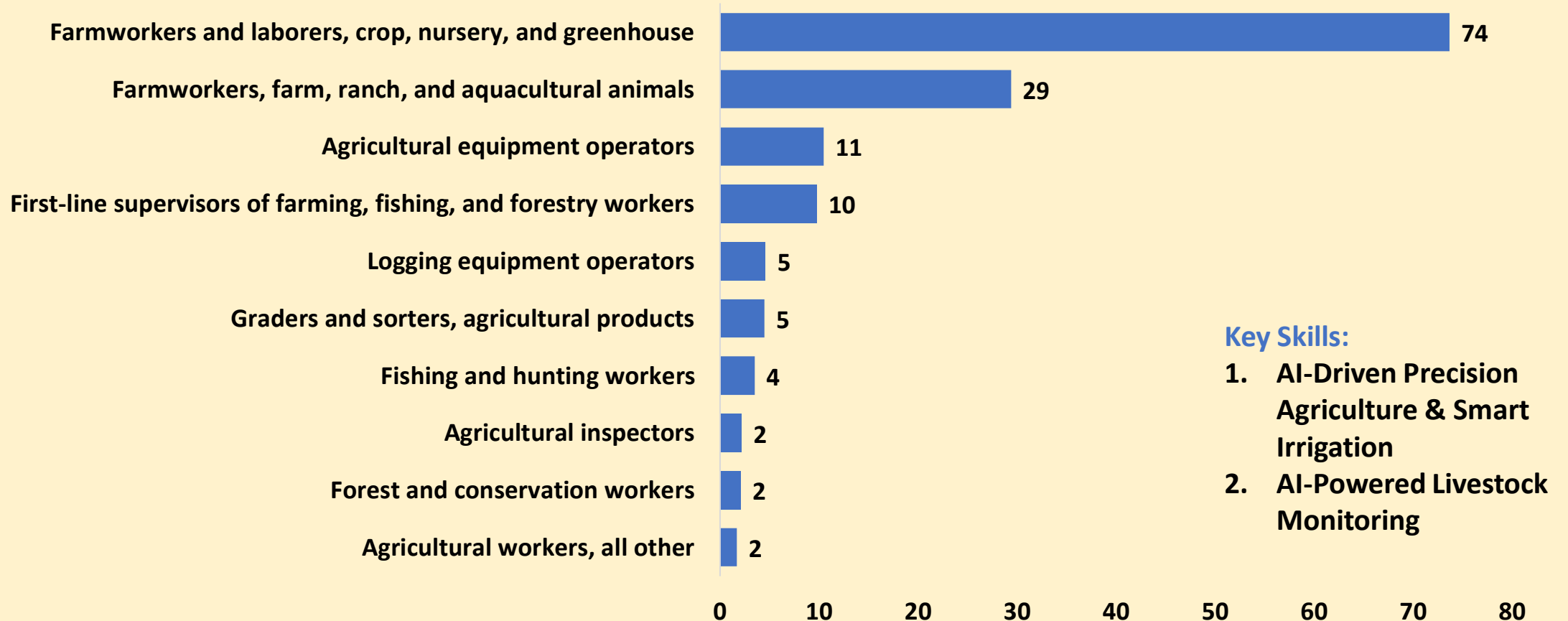
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Office and Administrative Support Occupations, Top 10



Source: Bureau of Labor Statistics, Projections 2023-2033

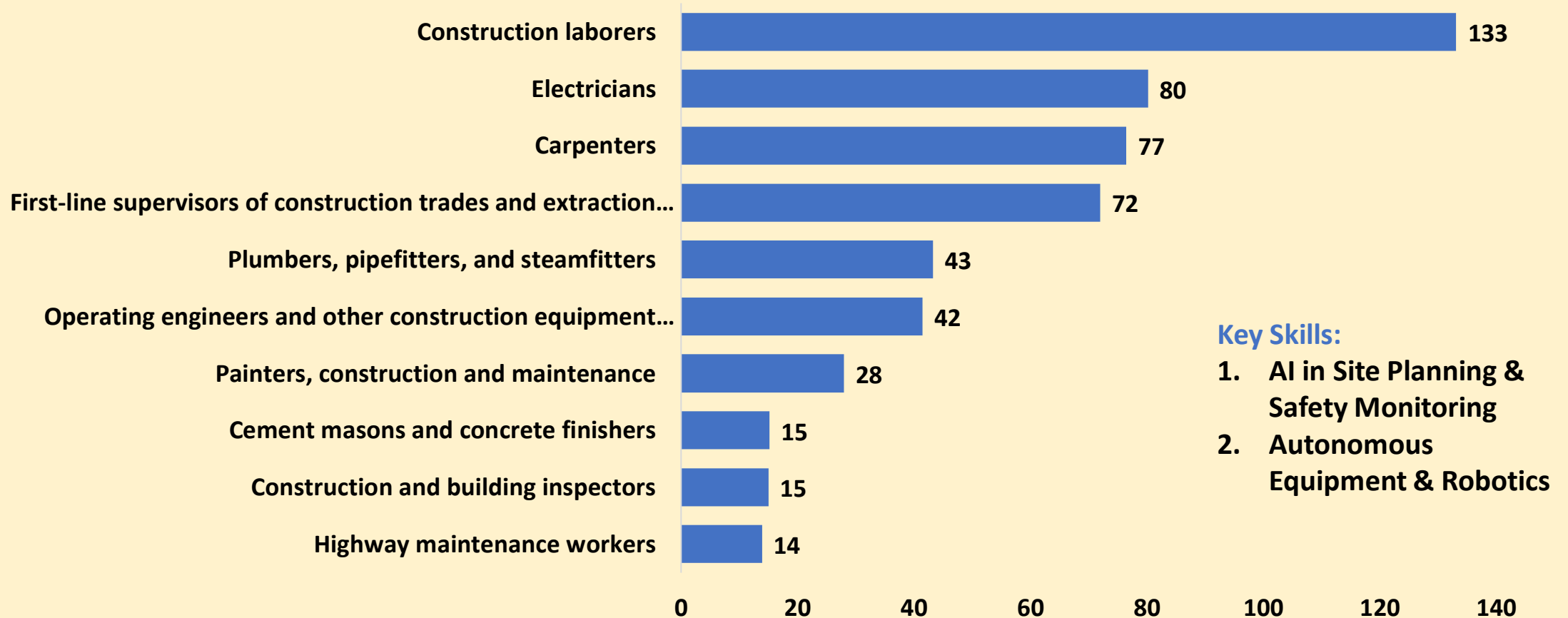
U.S. (thousands) Average Annual Openings: Farming, Fishing, and Forestry Occupations, Top 10



Source: Bureau of Labor Statistics, Projections 2023-2033

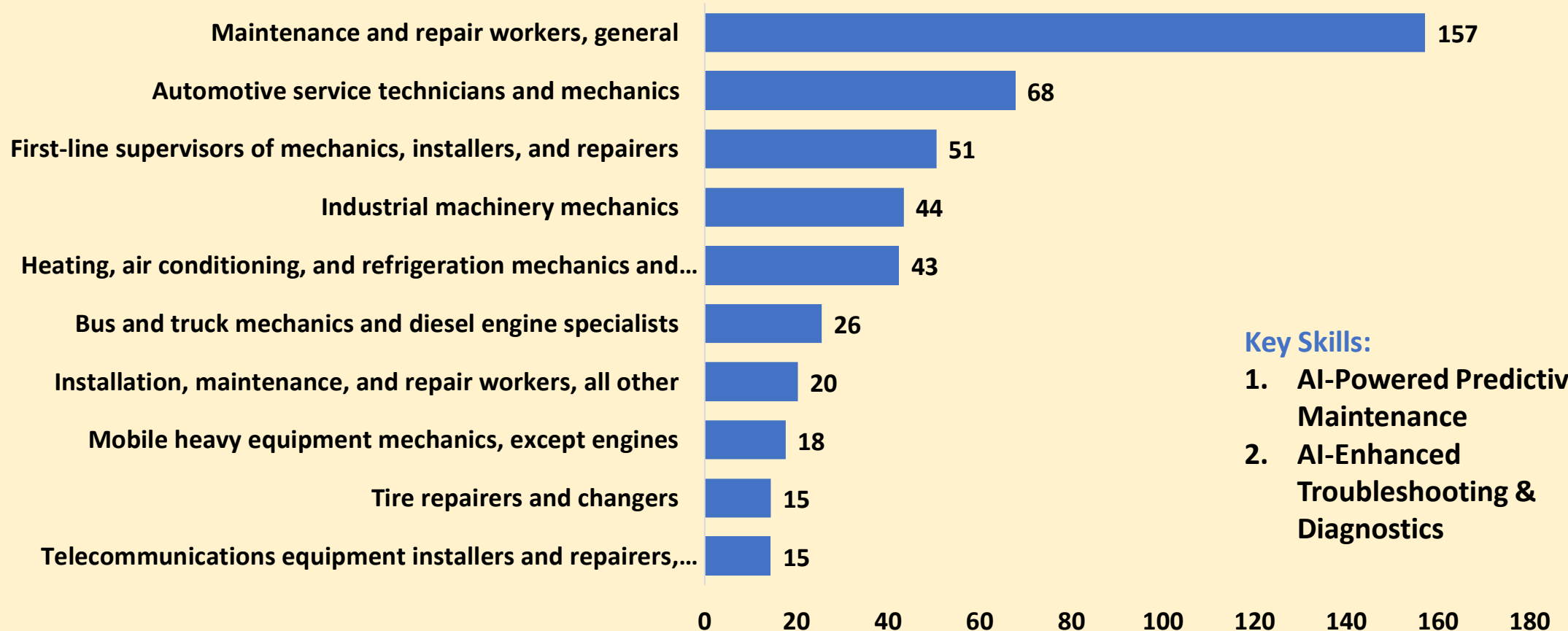
U.S. (thousands) Average Annual Openings:

Construction and Extraction Top 10



Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Installation, Maintenance, Repair Occupations, Top 10



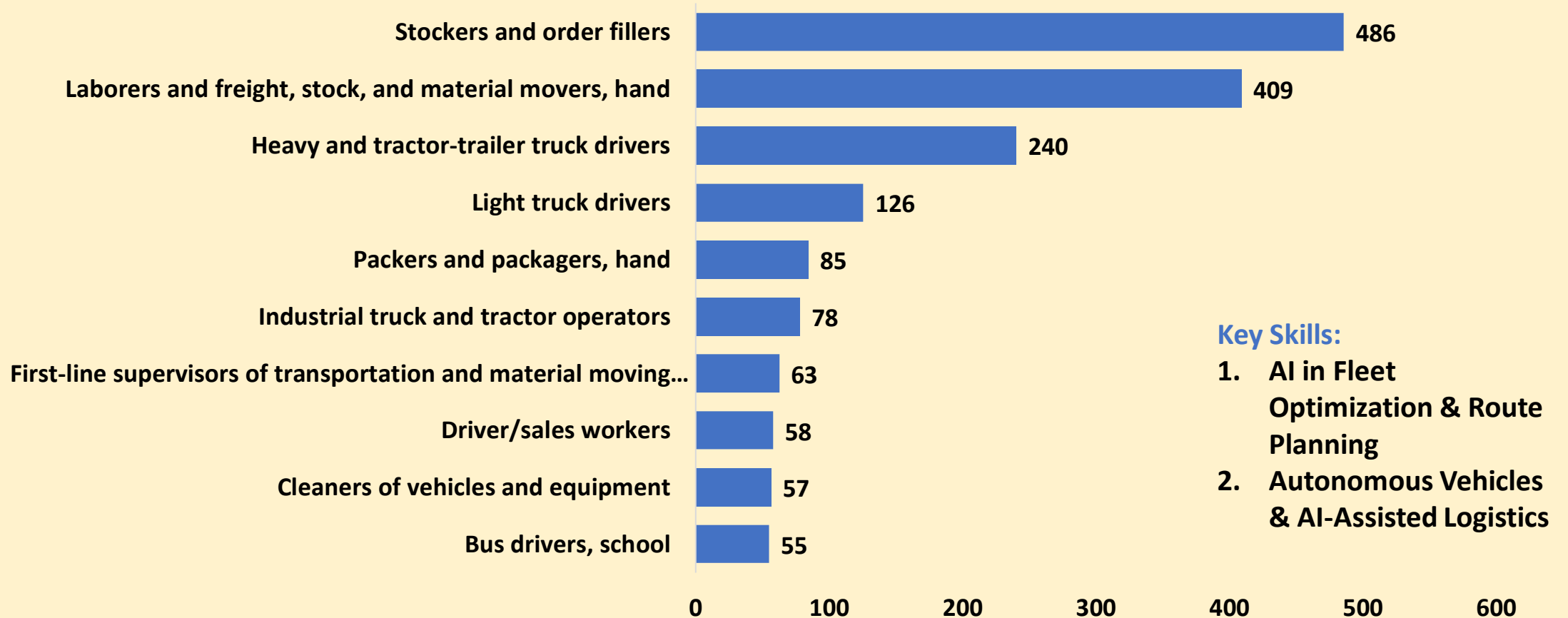
Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Production Occupations, Top 10



Source: Bureau of Labor Statistics, Projections 2023-2033

U.S. (thousands) Average Annual Openings: Transportation and Material Moving Occupations, Top 10



Source: Bureau of Labor Statistics, Projections 2023-2033

AI and New Skills Needed

Jobs aren't disappearing—they're evolving. The key to future-proofing your career? Master the skills AI can't replace

New Job Skills Arising from AI

Three broad categories

- Technical AI-related Skills
- Business & Analytical Skills
- Human-Centric Skills (AI-Resistant Skills)

Lifelong learning requirements

- Continuous skill adaptation

Technical AI-Related Skills

Skills for developing, deploying, and maintaining AI-driven systems

- **Machine Learning & AI Development** – Understanding algorithms, neural networks, and automation.
- **Data Science & Analytics** – Ability to collect, clean, and interpret data for decision-making.
- **Programming & Software Development** – Python, R, SQL, TensorFlow, and AI/ML frameworks.
- **Cybersecurity & AI Ethics** – Protecting AI systems from threats and ensuring ethical AI use.
- **Cloud Computing & AI Infrastructure** – Managing AI-powered applications on platforms like AWS, Google Cloud, and Azure.
- **Human-AI Collaboration & Engineering** – Training AI models and designing interfaces that enhance human productivity.

Business & Analytical Skills

AI will enhance decision-making, requiring professionals to be skilled in:

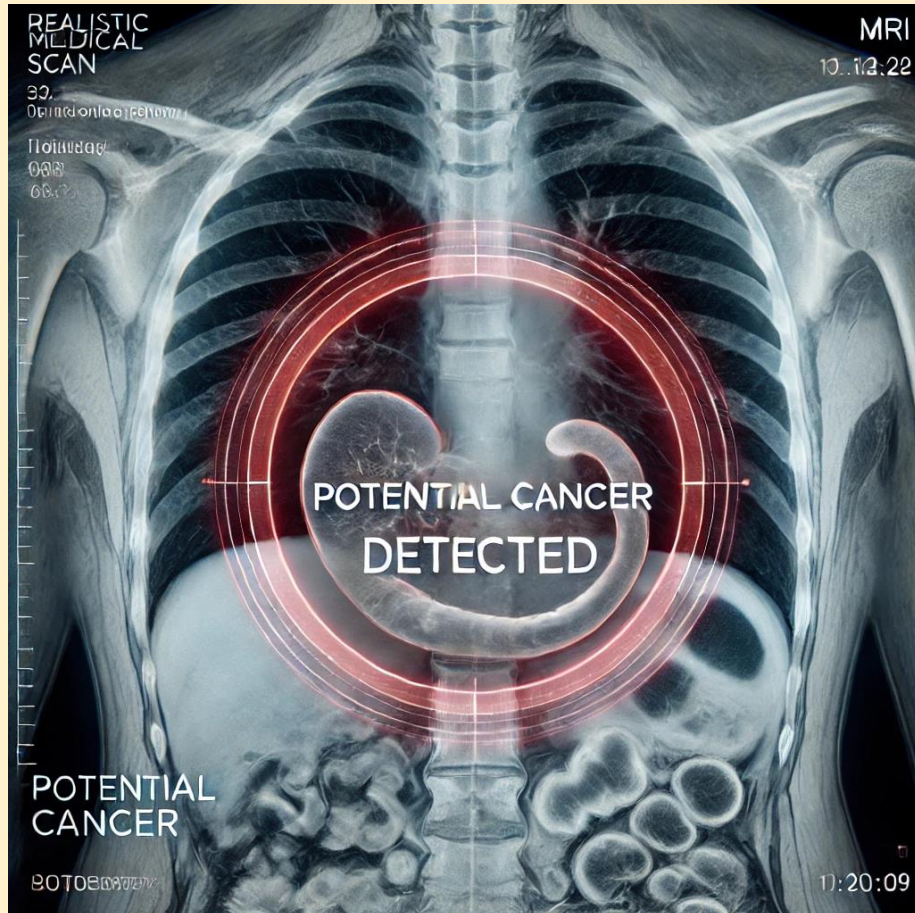
- **AI-Augmented Decision Making** – Using AI tools to support strategy, forecasting, and problem-solving.
- **Data-Driven Problem Solving** – Applying AI insights to optimize operations and improve customer experiences.
- **Process Automation & Efficiency** – Understanding how AI automates workflows in HR, marketing, and finance.
- **Digital Marketing & AI Integration** – Leveraging AI for targeted advertising, chatbots, and predictive analytics.
- **Change Management & AI Adoption** – Helping organizations implement AI without disrupting workflows.

Human-Centric Skills (AI-Resistant Skills)

While AI can automate tasks, these uniquely human skills will remain in demand:

- **Critical Thinking & Adaptability** – Ability to analyze AI-generated insights and make strategic decisions.
- **Creativity & Innovation** – Designing AI-driven products, marketing campaigns, and user experiences.
- **Emotional Intelligence & Leadership** – Managing teams, resolving conflicts, and making ethical AI-related decisions.
- **Ethics & Policy Development** – Understanding the implications of AI bias, privacy concerns, and regulations.
- **Communication & Collaboration** – Translating AI concepts for non-technical stakeholders and ensuring smooth AI-human teamwork.

Human-Machine Partnerships



AI-assisted diagnosis



Doctor informs patient and explains treatment options

Questions for Consideration

- Which of these skill areas—technical AI skills, business & analytical skills, or human-centric skills—do you think will be most important in your own career?
- What are some ways companies or individuals can better prepare?

Why AI Can't Replace All Jobs

- Human Emotions and Empathy: **The AI Blindspot**
- Creativity: **The Final Frontier AI Can't Cross**
- Complex Human Interactions: **More Than Just Logic**
- AI Struggles With **Unpredictable Scenarios**

*“The jobs that demand characteristics that are specific to humans such as **empathy, creativity, emotional intelligence, and the capacity to negotiate challenging social situations**, are ultimately the ones that will be most protected from AI.”*

Source: <https://gaper.io/15-jobs-will-ai-replace-by-2030/>

Jobs: Disappearing or Transforming?

In general:

- Low wage, low skill jobs: likely to be **eliminated** by AI
- High skill, high wage jobs: will be **transformed**
- Middle skill, middle wage jobs: **mixed** outcomes

How Individuals and Organizations Can Prepare

AI isn't just changing how we work—it's reshaping entire job categories, requiring millions of workers to adapt, transition, or reskill to stay competitive

Strategies for AI

- **Individuals**

- Upskilling, networking, and lifelong learning

- **Organizations**

- AI training programs, talent retention programs, role redesign

**Success requires adaptability and
human-AI collaboration**

Human-AI Collaboration

- **AI cannot replace creativity, emotional intelligence, or ethical reasoning**
- **AI-Human partnerships will redefine job roles and workflows**
- **Workers must develop AI-enhanced problem-solving skills**

Call to Action: Future Proof Your Career

- **Identify Transferable Skills**

- Look at your past experience and determine which skills align with future job trends (e.g., problem-solving, project management, data literacy)

- **Upskill with AI & Tech Literacy**

- Even non-tech professionals should understand how AI affects their field. Focus on data analysis, AI-enhanced tools, and automation basics.

- **Develop Human-Centric Skills**

- AI struggles with creativity, critical thinking, emotional intelligence, and adaptability—these skills will always be in demand.

- **Embrace Lifelong Learning!**

Consider a Career Pivot

- If your industry is shrinking, pivot to one that aligns with AI-driven growth. Fields that AI enhances rather than replaces include:
 - **Healthcare & Tech-Enabled Care** – Nursing, medical tech, telehealth
 - **Cybersecurity & IT** – Protecting AI-driven systems
 - **Green Economy & Sustainability** – Renewable energy, climate science
 - **Creative & Strategy Fields** – UX design, AI-augmented marketing, business strategy

Network & Engage in AI Communities

- Join AI, tech, and industry networking groups on LinkedIn, Meetup, and local business organizations.
 - Attend industry webinars and conferences (many are free online).
 - Follow thought leaders in AI and business transformation (Twitter, LinkedIn).
- Why This Matters:
 - **80%** of professional jobs are filled through networking
 - Stay updated on emerging job trends and hiring needs
 - Find mentors or career coaches to help with transitions

Stay Flexible & Embrace Lifelong Learning

- **Adopt a growth mindset** – Job markets are evolving rapidly. The ability to adapt is more important than any single skill.
- **Be open to hybrid or gig roles** – AI-driven job markets will favor portfolio careers (multiple income streams).
- **Certifications matter** – Many companies now value skills as much as degrees.
 - Google Data Analytics & AI Essentials (6 months, online)
 - AWS Cloud Practitioner (Amazon Cloud Skills)
 - CompTIA Security+ (Cybersecurity, beginner-friendly)
 - Project Management Professional (PMP)

How to Future-Proof Your Career

- **Learn AI & tech basics** – All workers should understand AI's impact.
- **Identify “AI-proof” skills** – Focus on adaptability, creativity, problem-solving.
- **Experiment with new job models** – Hybrid roles, gig work, consulting, entrepreneurship.
- **Network constantly** – Be visible in industry discussions to spot opportunities early.
- **Never stop learning** – The workforce will change faster than ever—continuous reskilling is key.

Questions for Consideration

- **What's one thing you'll do differently starting tomorrow based on what you learned today?**
- **What steps can you take in the next six months to better prepare for AI-driven changes?"**

Thank You!

I created a handout summarizing Key AI Skills

You can find it at:

<https://chatgpt.com/canvas/shared/67d9887af7508191b158e022ea4a7002>