

Artificial Intelligence for Sustainability: Maximizing Benefits for the United States

Panel III: Societal Impact of AI on Employment and Workforce Employment Outlook: 2023–33

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Division of Employment Projections

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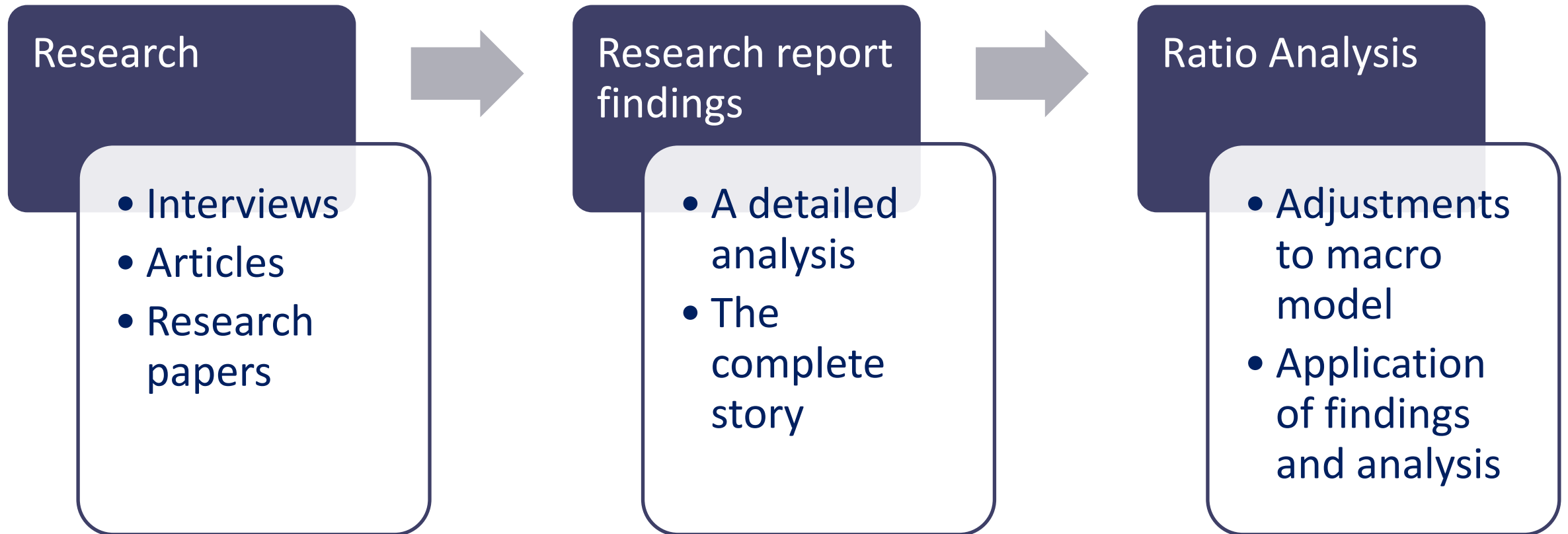


Topics

- How BLS and the Employment Projections (EP) program incorporate technological advancements, including AI, into the employment projections
- 2023–33 Projections Case Studies
- Overview of 2023–33 projections
 - ▶ 2024–34 projections will be published August 28



Projections Development Process



Projections are Based on a Set of Assumptions

- Projections data provide a potential scenario for changes in the economy over a decade
 - ▶ Grounded in historical relationships in employment data
- The projected U.S. economy will be at approximately full employment/potential output
 - ▶ Do not try to anticipate future business cycle activity
- Assume that labor productivity and technological progress will be in line with the historical experience
 - ▶ Productivity will increase and technology will progress



Technology Impacts Occupations

- Historical record shows that technology impacts occupations gradually
 - ▶ A couple of these historical examples are cited in the MLR article
- It takes time for employers and workers to incorporate new technology
- Technology may impact overall demand for an occupation, or it may change the composition of tasks performed by an occupation
 - ▶ May result in faster GDP growth, higher output for total economy
- Goal is to identify expected employment changes, both in direction and magnitude
 - ▶ Is there sufficient evidence to support an adjustment to the model?
- EP approaches potential AI-related impacts in the same way as it does other technologies
 - ▶ Research aims to connect potential employment impacts of a new technology with data trends

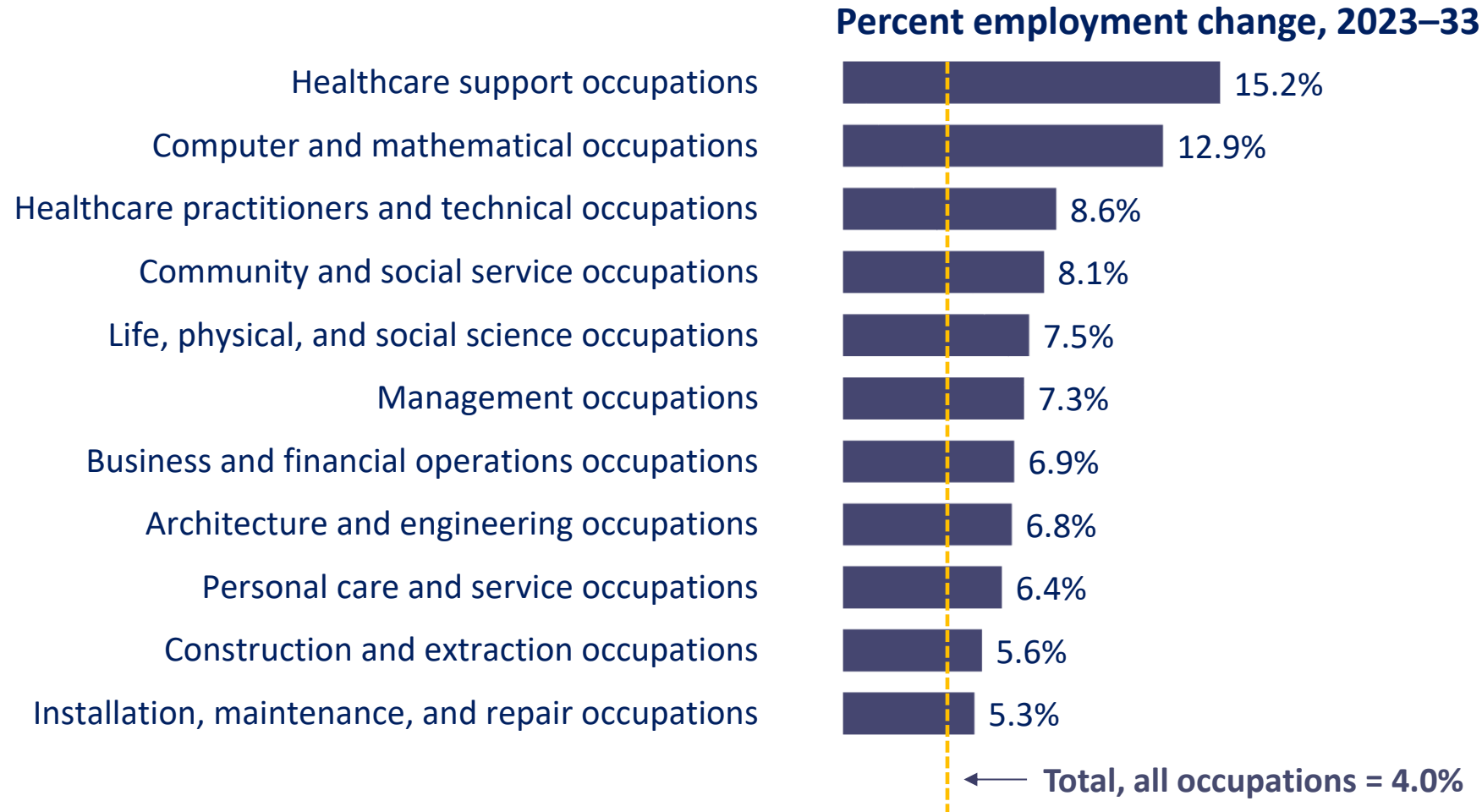


Focus on Long-term Structural Trends

- EP does not calculate or publish the impact that is projected to stem from AI alone
- EP does consider and integrate impacts from any other structural changes that have been identified
- In a case where technology advances much more rapidly than it has in the past, it is unlikely that historical employment relationships will hold
- Developments in AI are proceeding rapidly
 - ▶ Uncertainty around potential impacts remains high



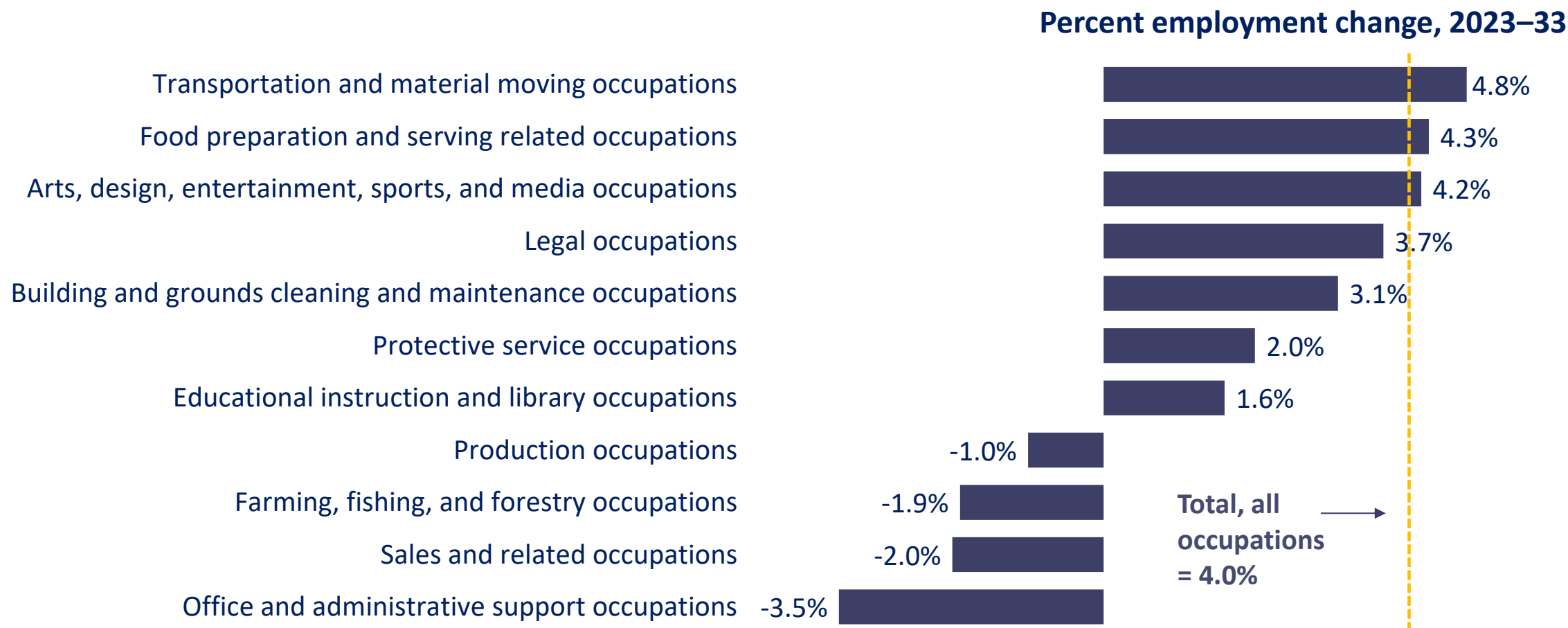
Occupation Groups Projected to Grow the Fastest



2023–33 Projections Case Study: Computer Occupations

- Several computer occupations are projected to experience an increase in demand
 - ▶ Strong demand for coding is expected to boost demand for software developers, an occupation projected to grow 17.9 percent from 2023—33, much faster than the average for all occupations
 - ▶ Information security analysts will be needed to sustain data maintenance and security; thus, their estimated employment growth is 32.7 percent, much faster than the average for all occupations from 2023–33
 - ▶ Database architects will be needed to improve business data infrastructure for AI integration; thus, their projected employment growth is 10.8 percent, much faster than the average for all occupations from 2023–33

Projected Employment Change by Occupation Group

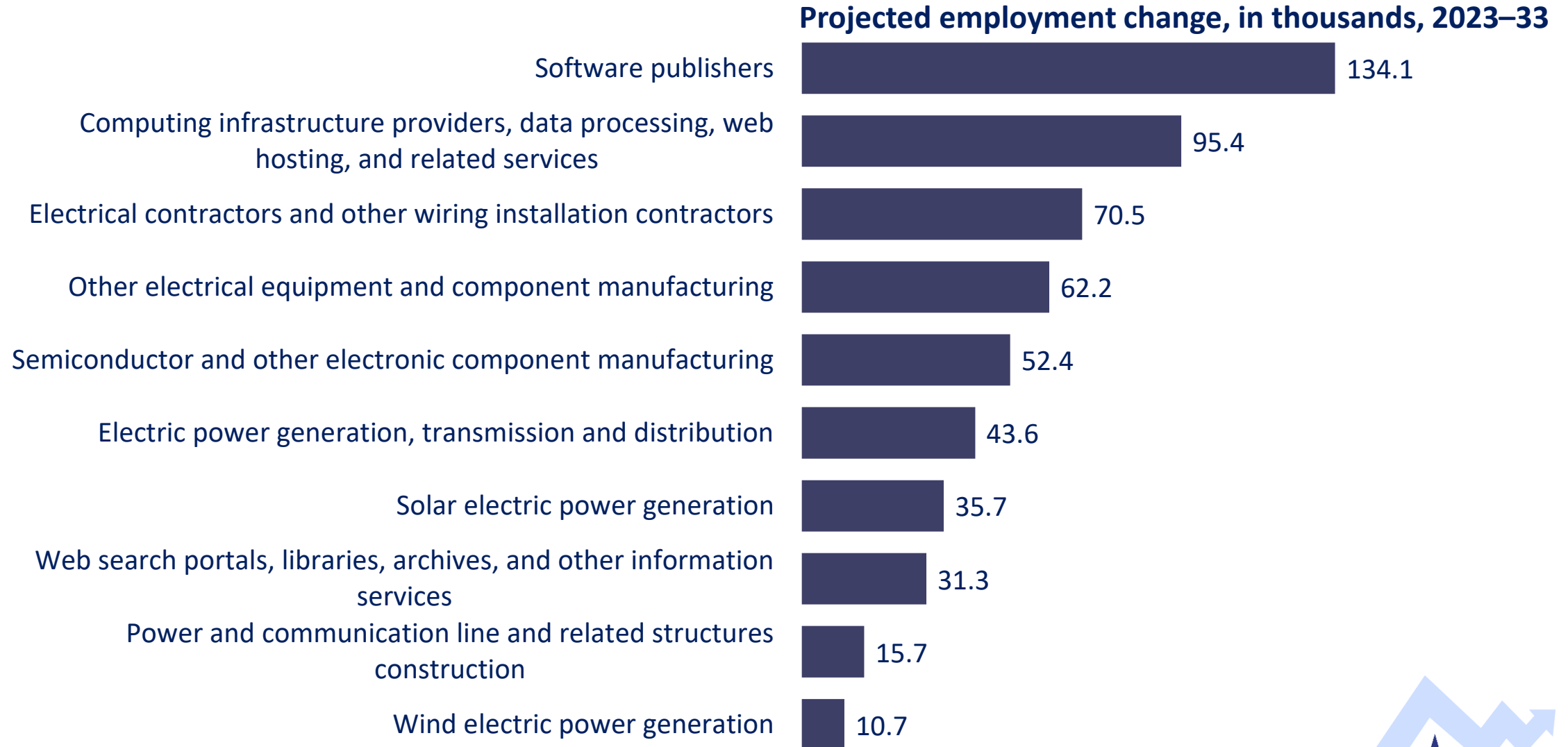


2023–33 Projections Case Study: Legal Occupations

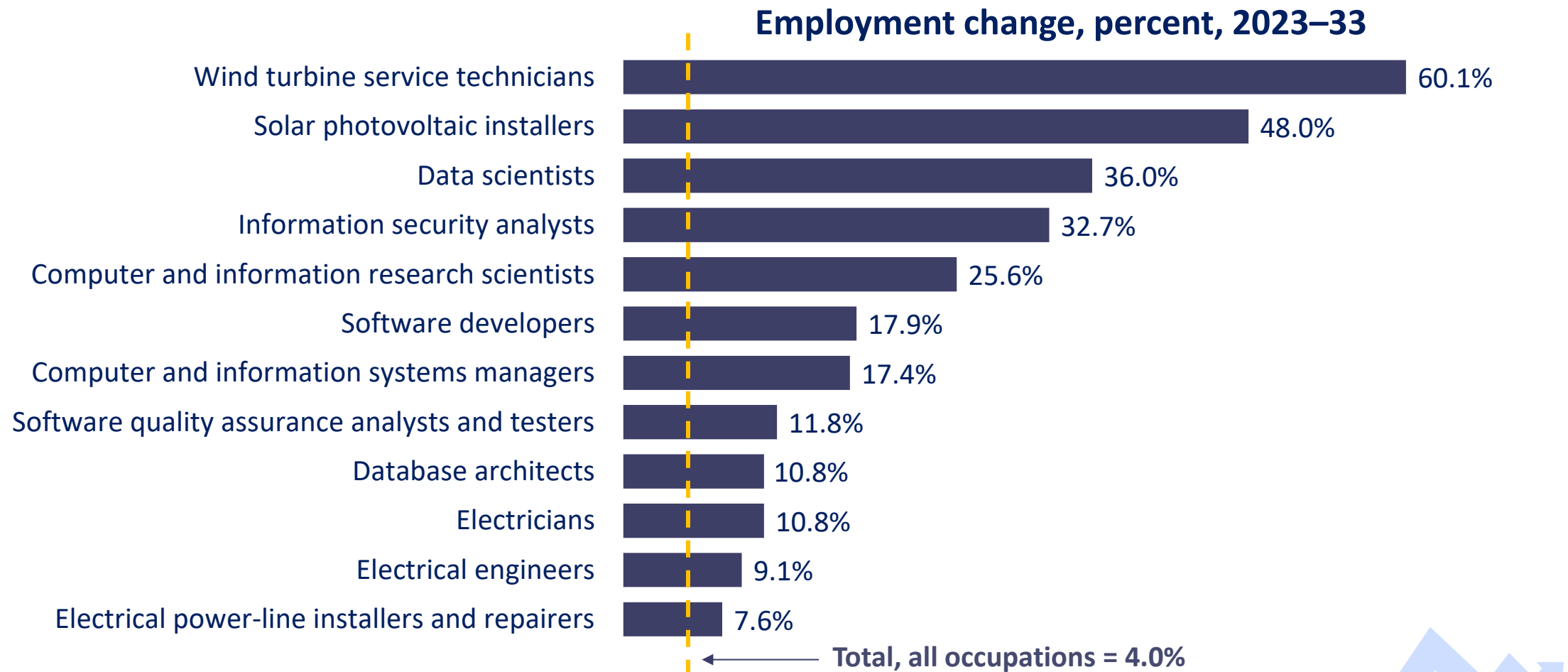
- Paralegals and legal assistants are expected to see the strongest employment impact of AI across legal professions
 - ▶ This occupation is projected to grow 1.2 percent, slower than the average for all occupations from 2023–33
- While AI is expected to improve productivity for lawyers, a much smaller share of their role can be automated
 - ▶ Lawyers are projected to grow 5.2 percent between 2023–33, about as fast as average



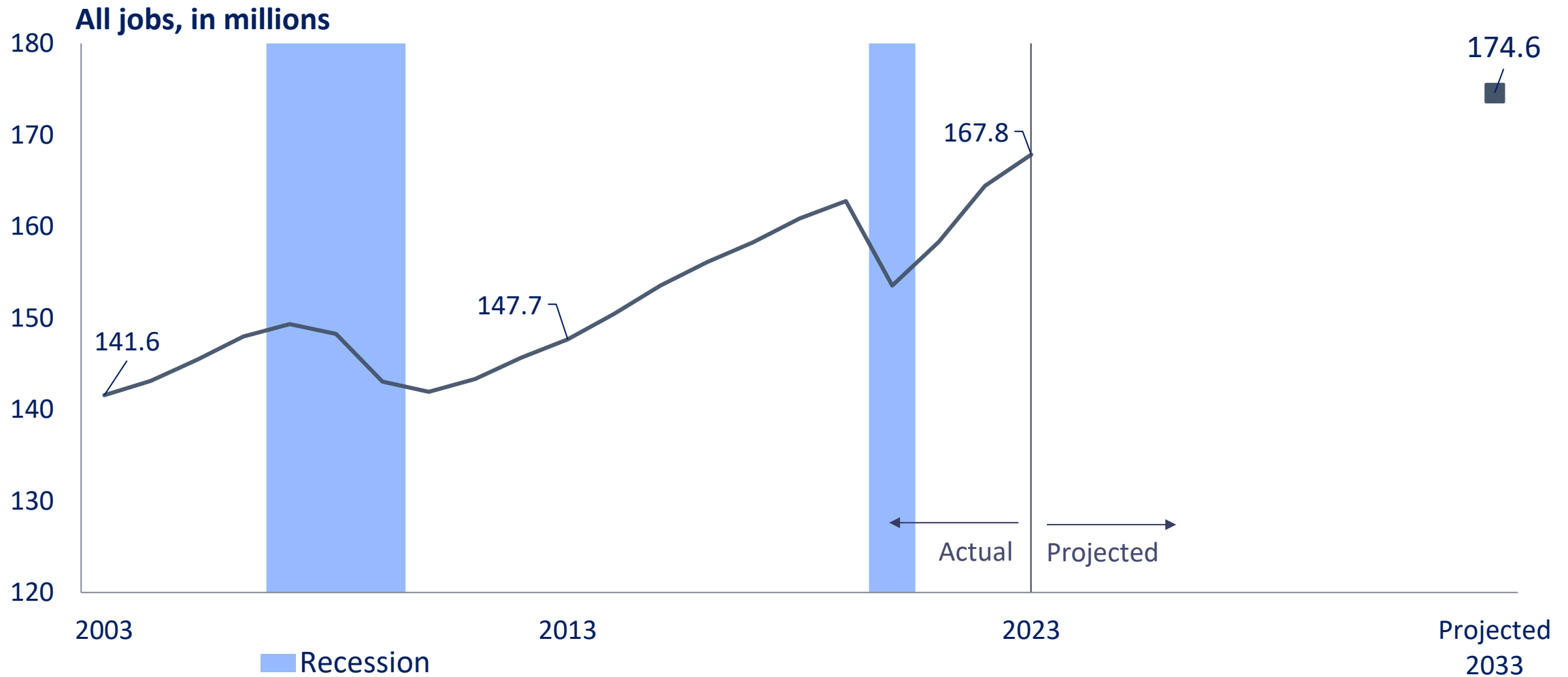
Selected Industries Related to AI Infrastructure



Selected Fast-Growing Occupations Related to AI Infrastructure



Total Employment, 2003–23 and Projected 2033



Additional resources

- “Incorporating AI impacts in BLS Employment projections: occupational case studies”:
<https://www.bls.gov/opub/mlr/2025/article/incorporating-ai-impacts-in-bls-employment-projections.htm>
- “Industry and occupational employment projections overview and highlights, 2023–33”:
<https://www.bls.gov/opub/mlr/2024/article/industry-and-occupational-employment-projections-overview-and-highlights-2023-33.htm>
- Employment Projections: 2023–33 news release, including technical note:
<https://www.bls.gov/news.release/ecopro.htm>
- Table 1.12 Factors affecting occupational utilization, projected 2023–33:
<https://www.bls.gov/emp/tables/factors-affecting-occupational-utilization.htm>
- “Growth trends for selected occupations considered at risk from automation”:
<https://www.bls.gov/opub/mlr/2022/article/growth-trends-for-selected-occupations-considered-at-risk-from-automation.htm>
- EP Handbook of Methods: <https://www.bls.gov/opub/hom/emp/>



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