

# Identifying Structural Change in BLS Data

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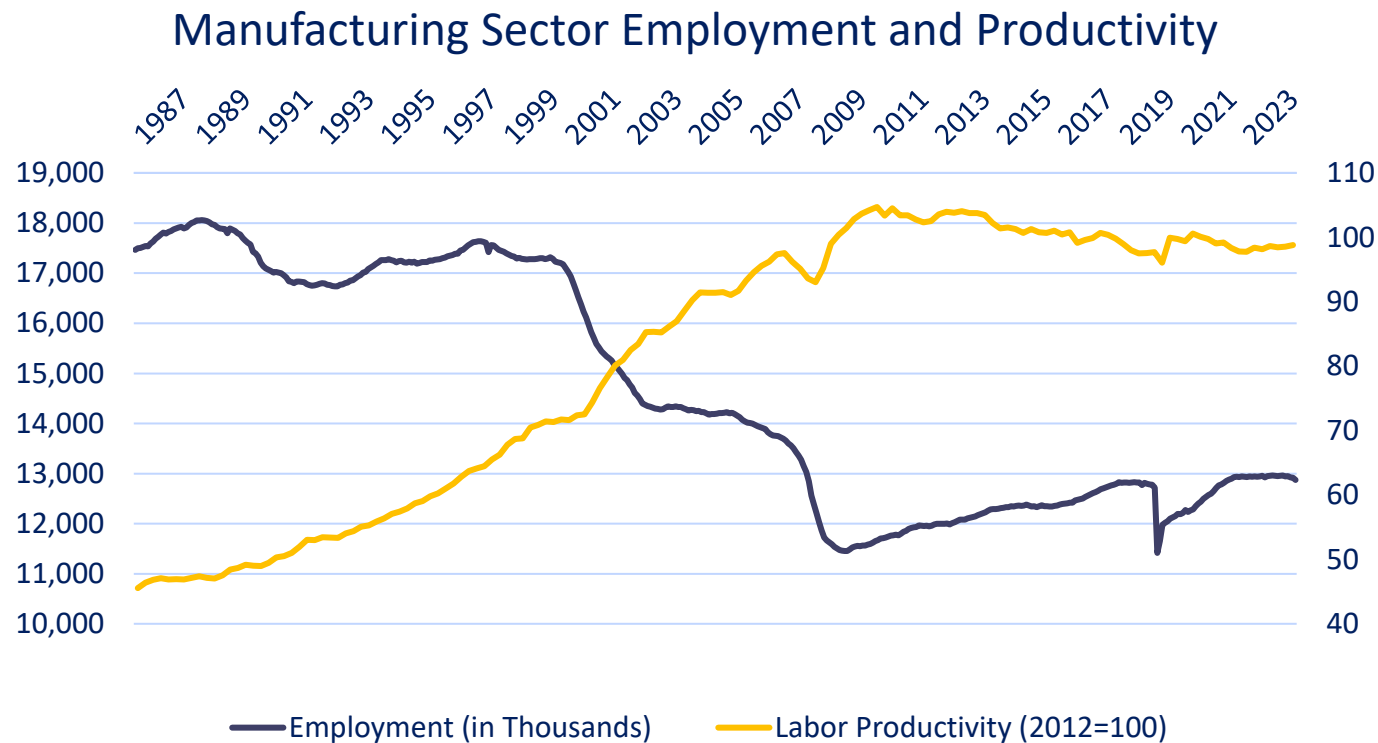
# BLS Projections Program

- 10-year projections of employment by occupation and industry
- Used to identify jobs in demand for the Department of Labor's Workforce Training grants
- Focus is on identifying and projecting structural changes in the labor market:
  - ▶ Industry growth trends
  - ▶ Occupational staffing patterns for industries



# Identifying Structural Changes in Industries

- BLS has timely and consistent data on industries
- Additional metrics like output and productivity provide context



# AI/Technology Impacts and Occupations

- Generally accepted that AI impacts tasks
- Occupations are defined by tasks (work performed), while Industries are defined by production (goods or services)
- How do we view impacts of AI/Technology in Occupation data?



# Sources of Occupational Data - CPS

- For long-term analysis of occupational change, the Current Population Survey (CPS) is commonly used
  - ▶ CPS provides data on occupations for over 50 years
  - ▶ Classifications change over time, although harmonizations exist
  - ▶ CPS sample size is not generally sufficient to analyze detailed occupations and is generally better for occupational groups

# Sources of Occupational Data - OEWS

- The Occupational Employment and Wage Statistics (OEWS) is the primary historical data used by the BLS Projections program
  - ▶ Large sample – over 1 million establishments
  - ▶ Over 800 detailed occupations
  - ▶ Over 500 areas (state, metropolitan, and nonmetropolitan areas)
  - ▶ Data available since late 1990s
  - ▶ At the national level, data are available for occupations by industry
  - ▶ But...

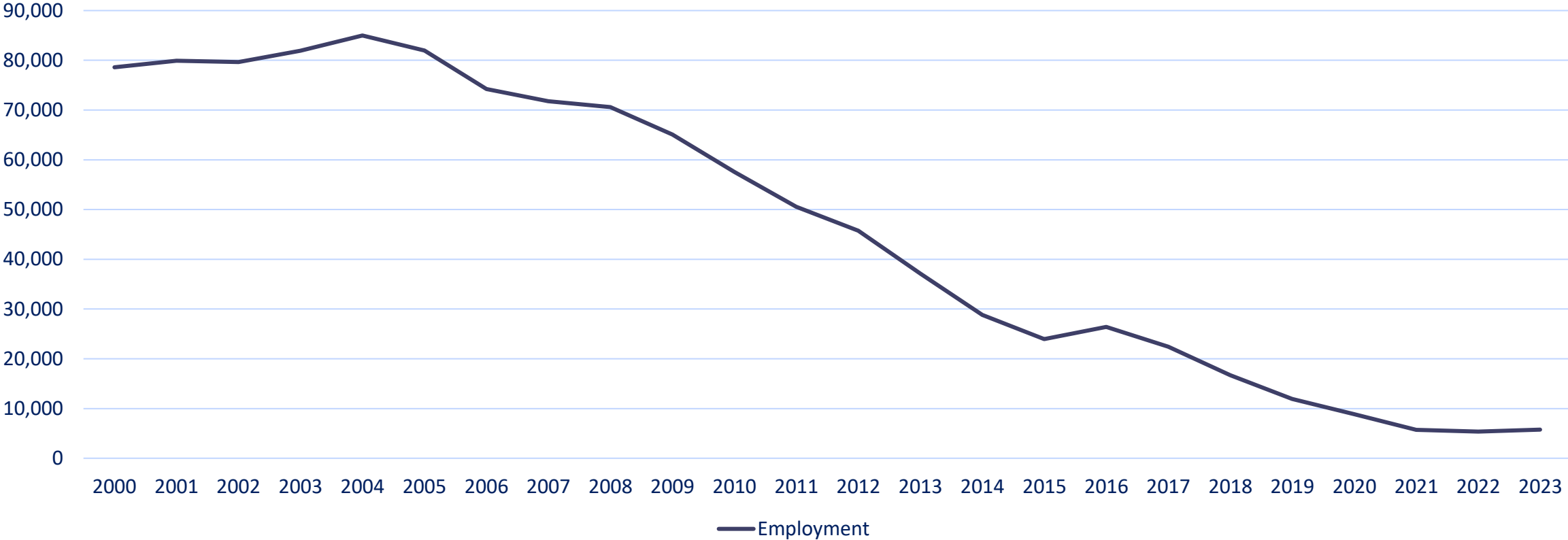


# Sources of Occupational Data - OEWS

- OEWS data are not designed to be used as a time series
  - ▶ Sample is collected in 6 panels over 3 years, with data released annually, but only the full 6 panels are representative
  - ▶ Data are not adjusted for changes in classifications, collection methods, estimation methods, and scope
  - ▶ BLS cautions against use of OEWS data for time-series analysis

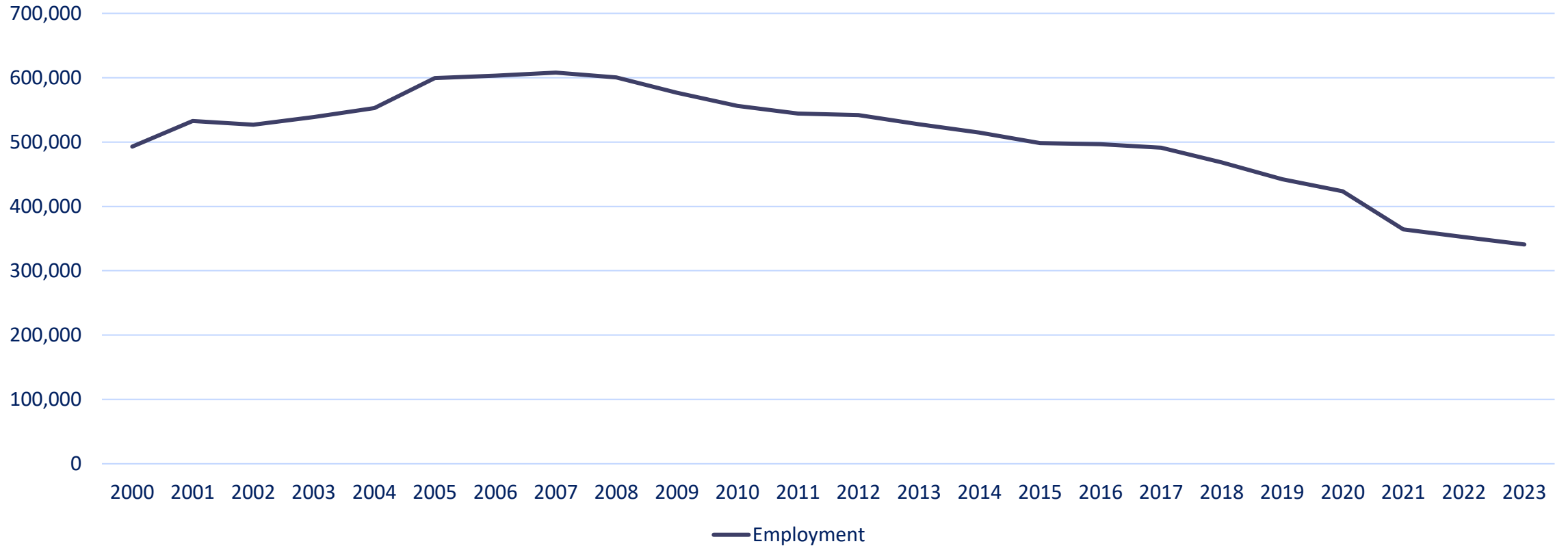


# Photographic Processing Workers

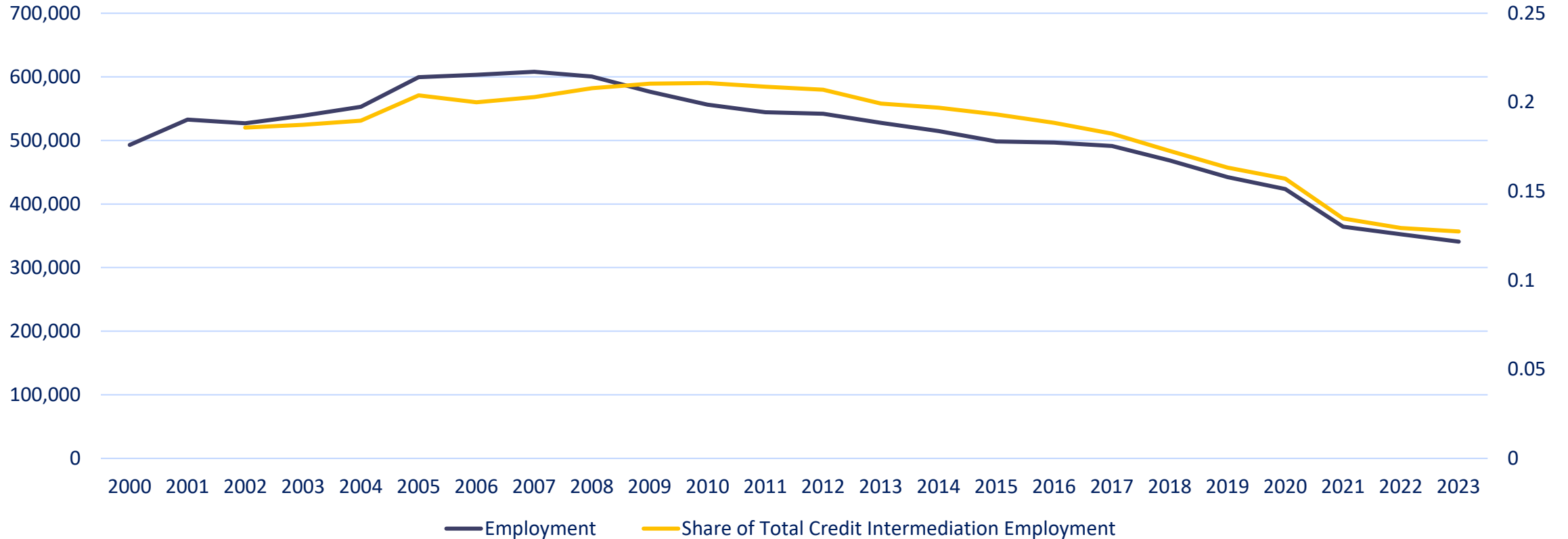




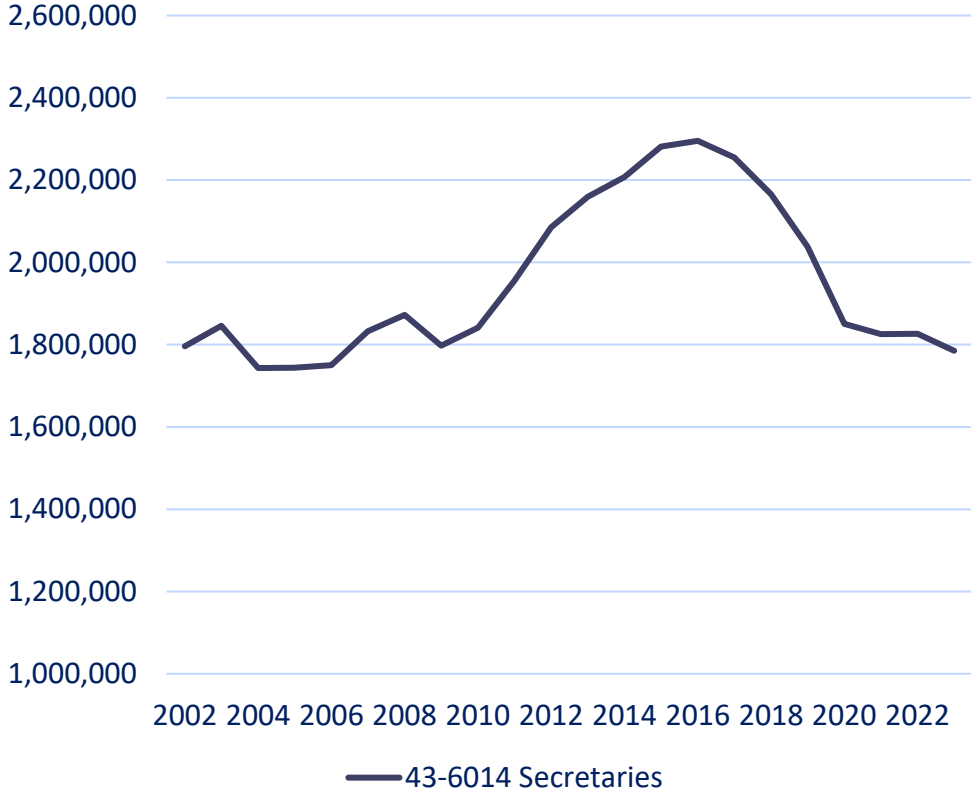
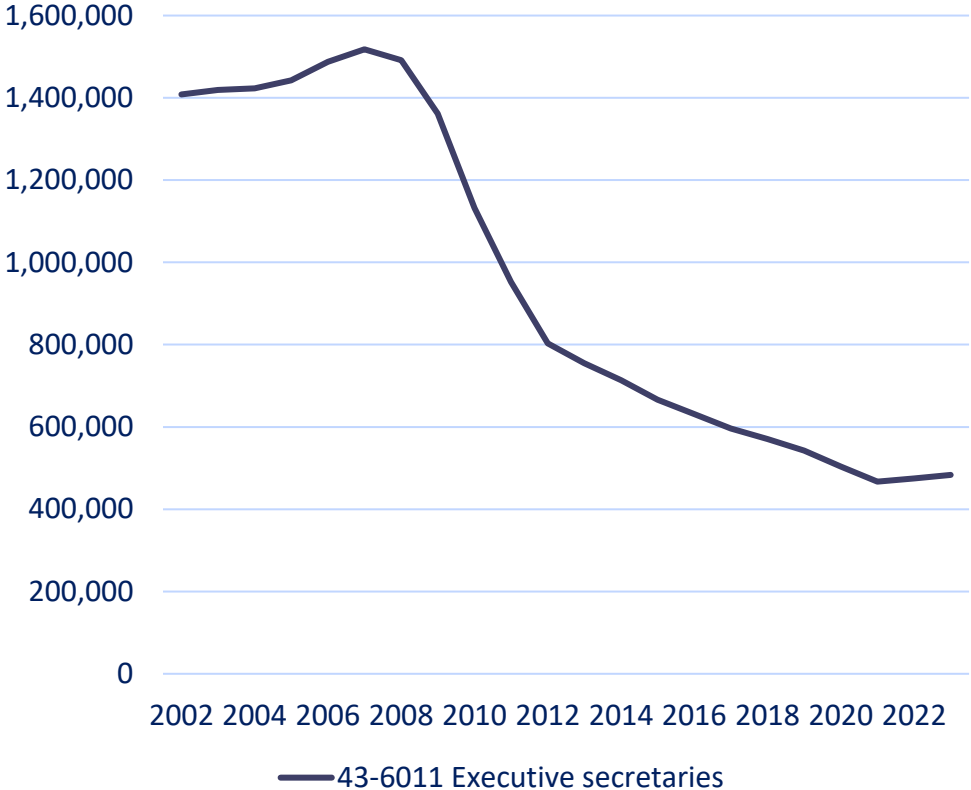
# Tellers



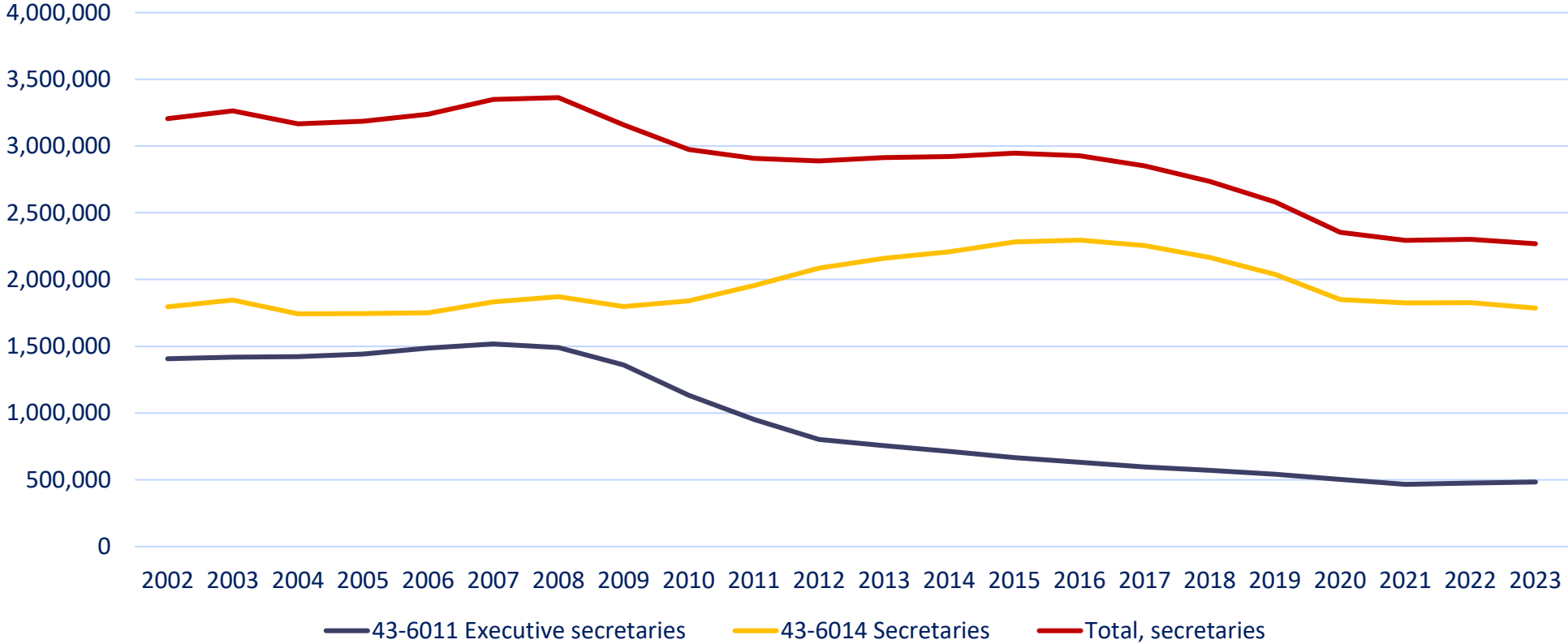
# Tellers



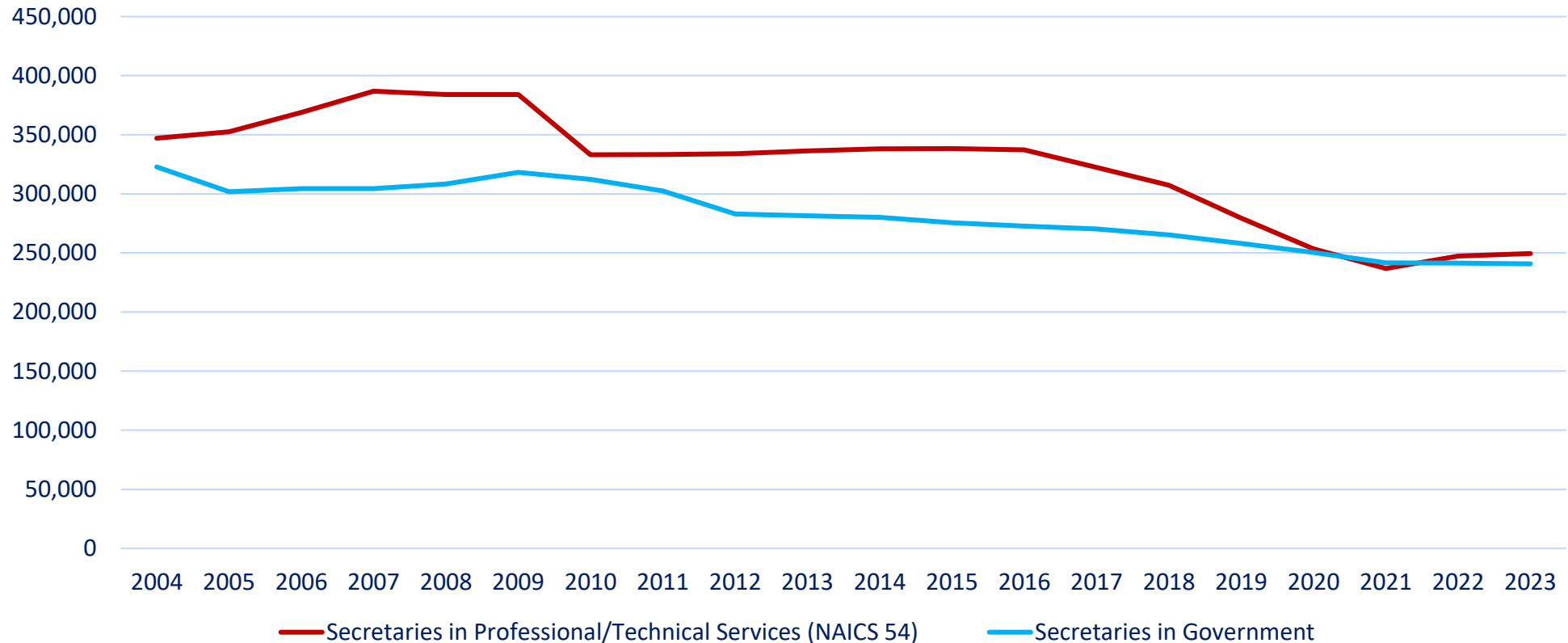
# Secretaries



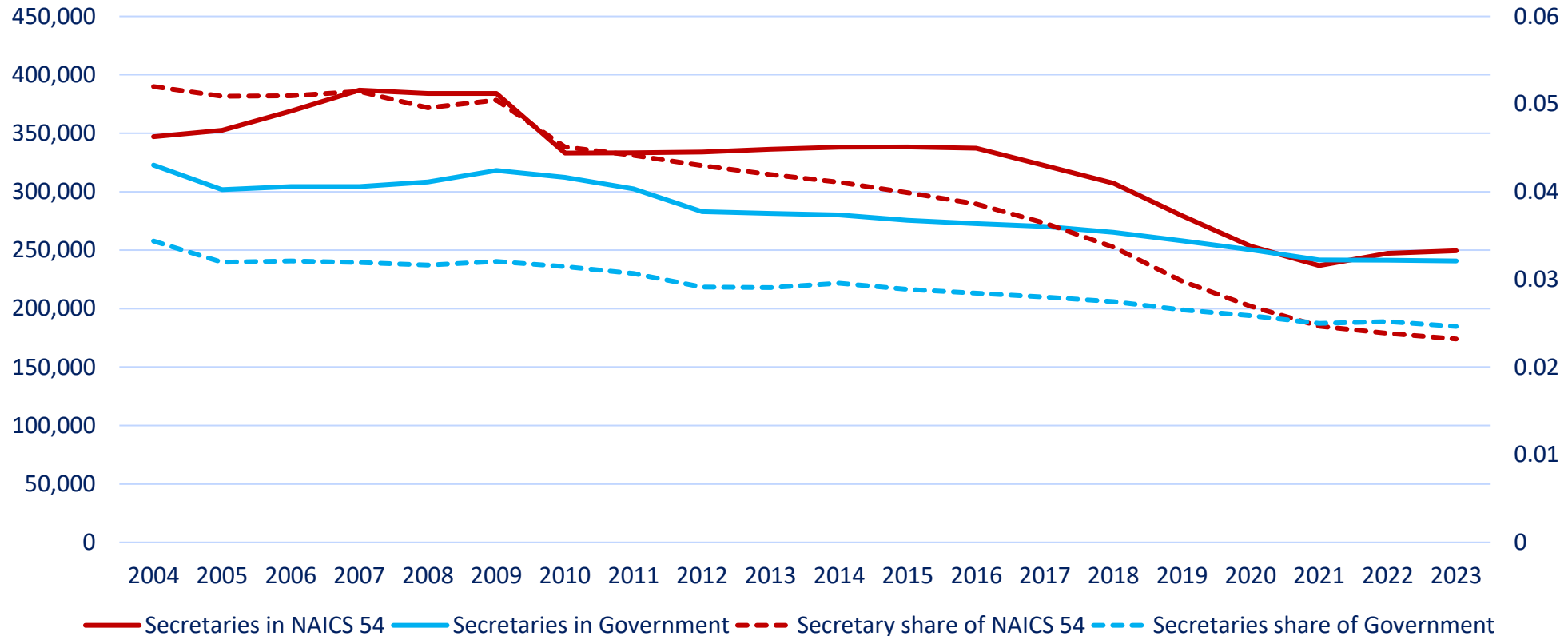
# Secretaries



# Secretaries - Employment By Industry

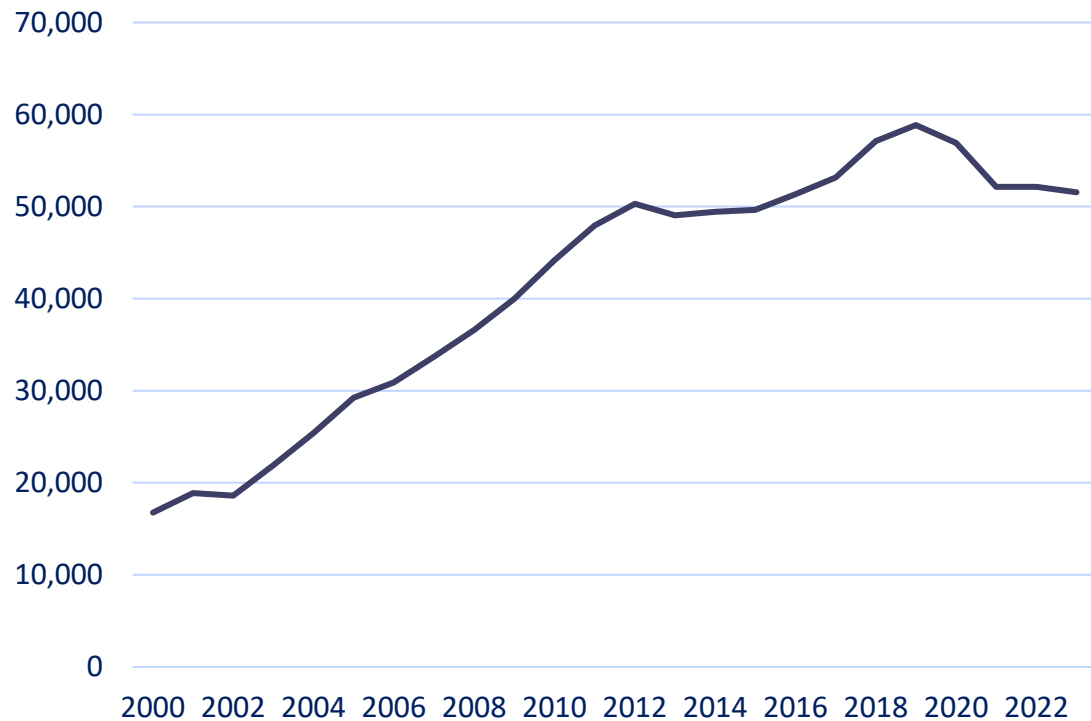


# Secretaries – Share of Industry

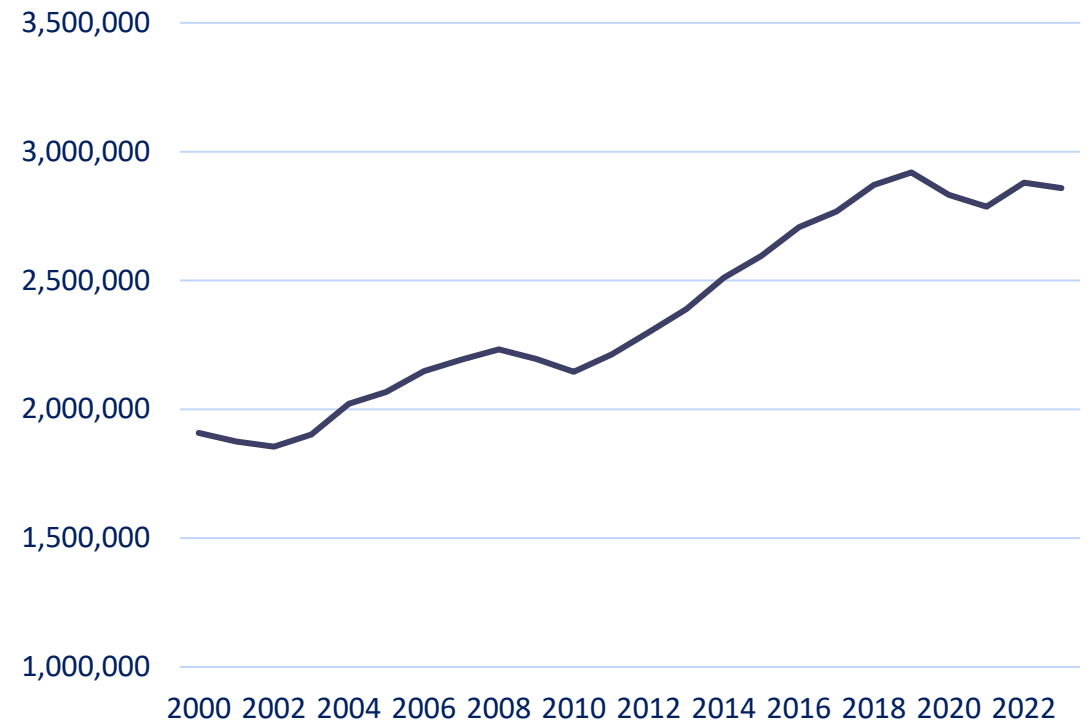


# Occupations Potentially Impacted by AI

## Employment of Interpreters and Translators



## Employment of Customer Service Representatives



# Summary

- Historical track record is that structural change in occupations happens slowly over time
- BLS occupational data from the OEWS survey is able to measure structural changes that occur slowly over time
- If AI/technology impacts occupations slowly over time, BLS data will show it, although it is slow to register inflection points
- If new forms of AI are different and impact occupations faster, this lag in identifying inflection points is more salient





# Contact Information

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