2016 WORKFORCE OUTLOOK FORUM

DARAIUS IRANI, PH.D.

MAY 26, 2016

Regional Economic Studies Institute

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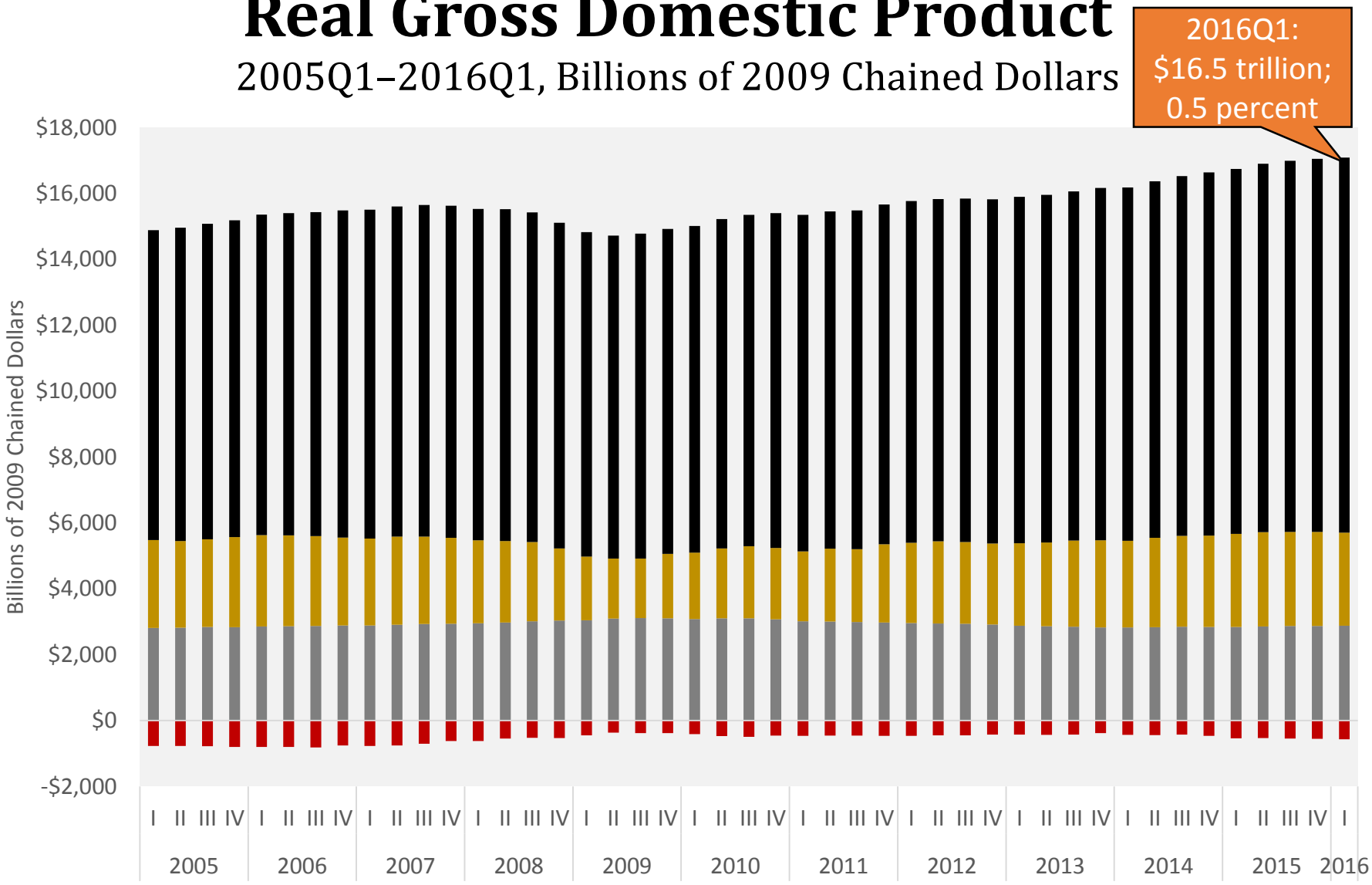
Real Gross Domestic Product

2005Q1–2016Q1, Billions of 2009 Chained Dollars



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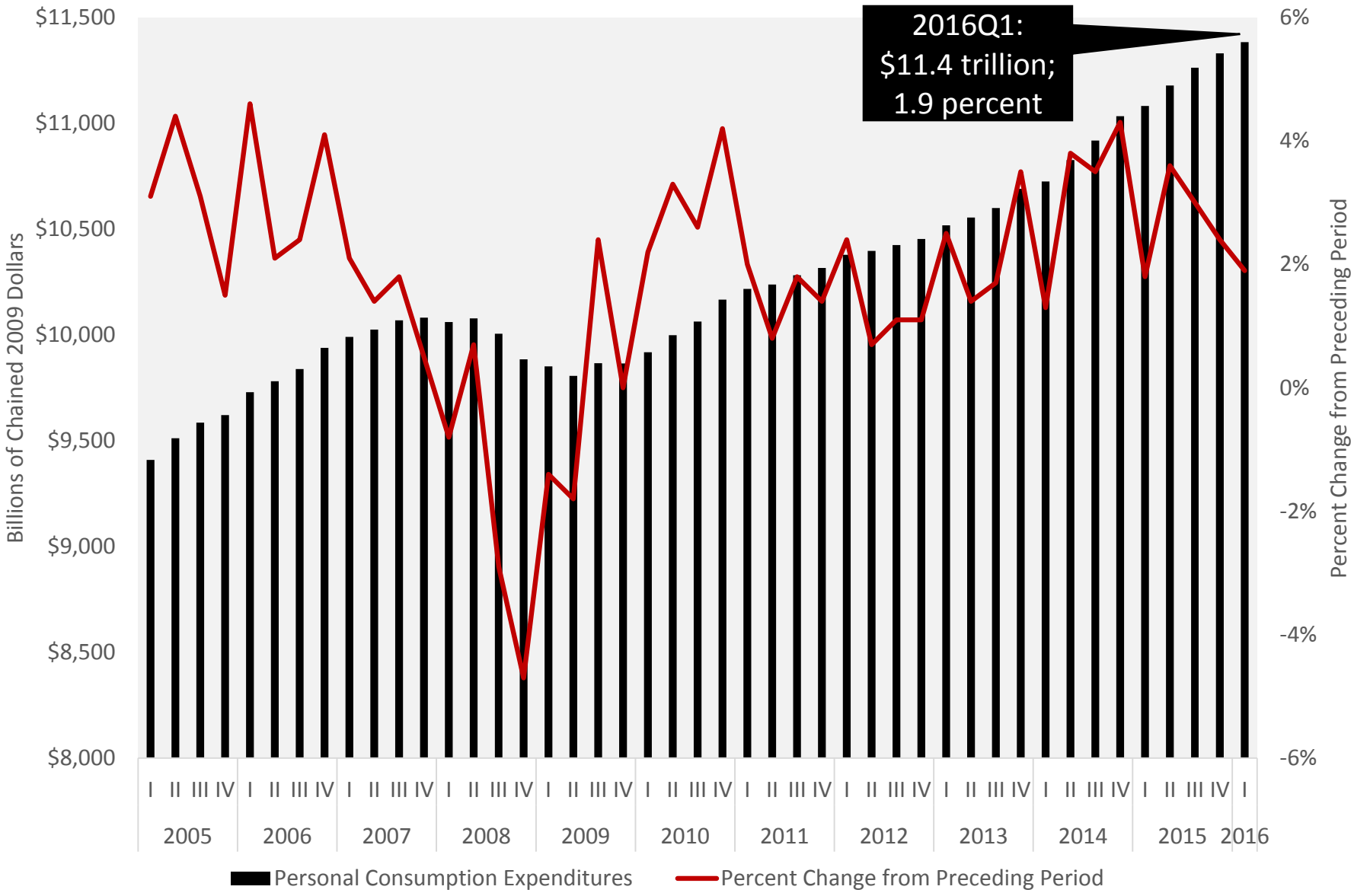
Source: Bureau of Economic Analysis (BEA)

U.S. Personal Consumption Expenditures

2005Q1–2016Q1, Billions of Chained 2009 Dollars



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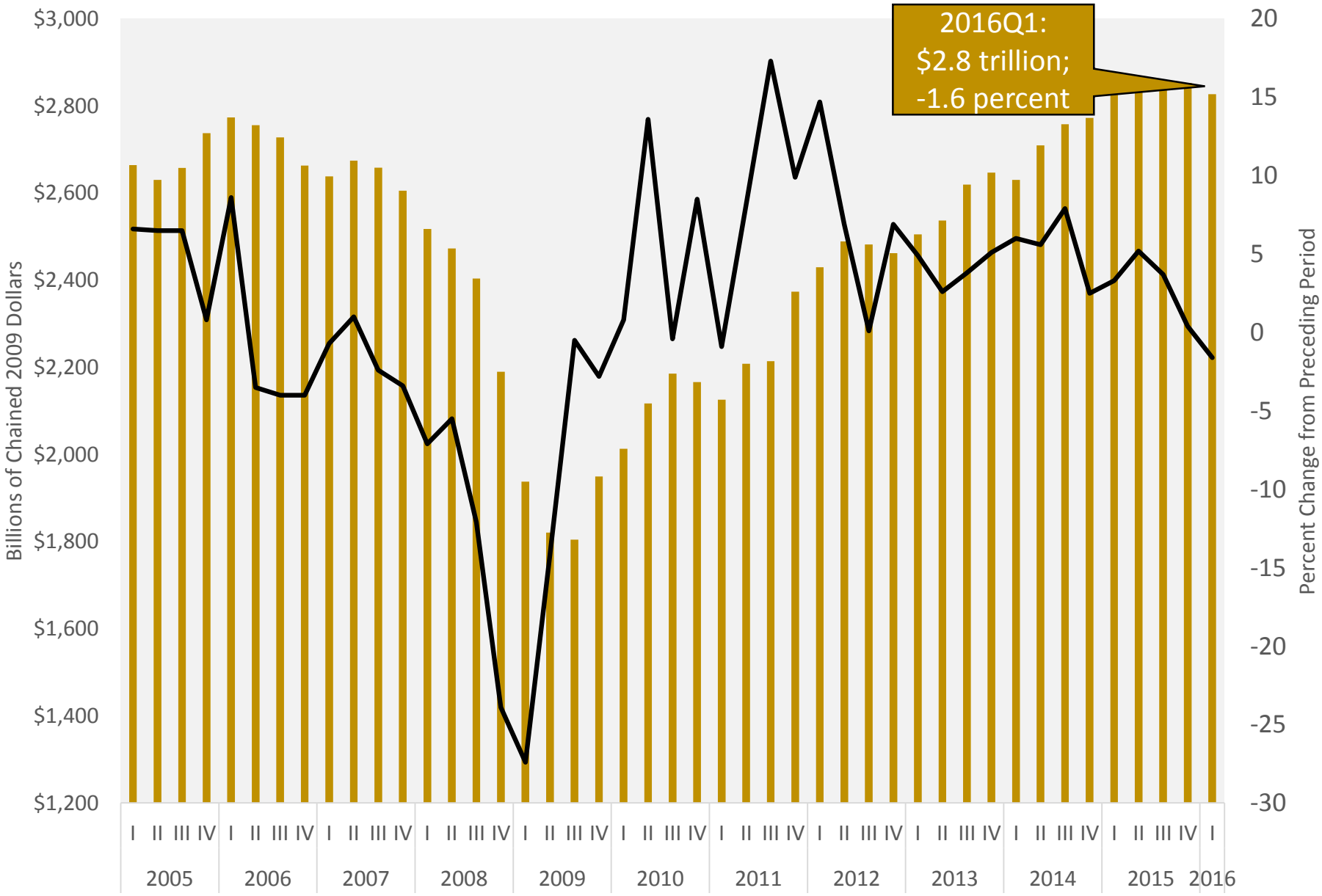
Source: BEA

U.S. Gross Private Domestic Investment

2005Q1–2016Q1, Billions of Chained 2009 Dollars



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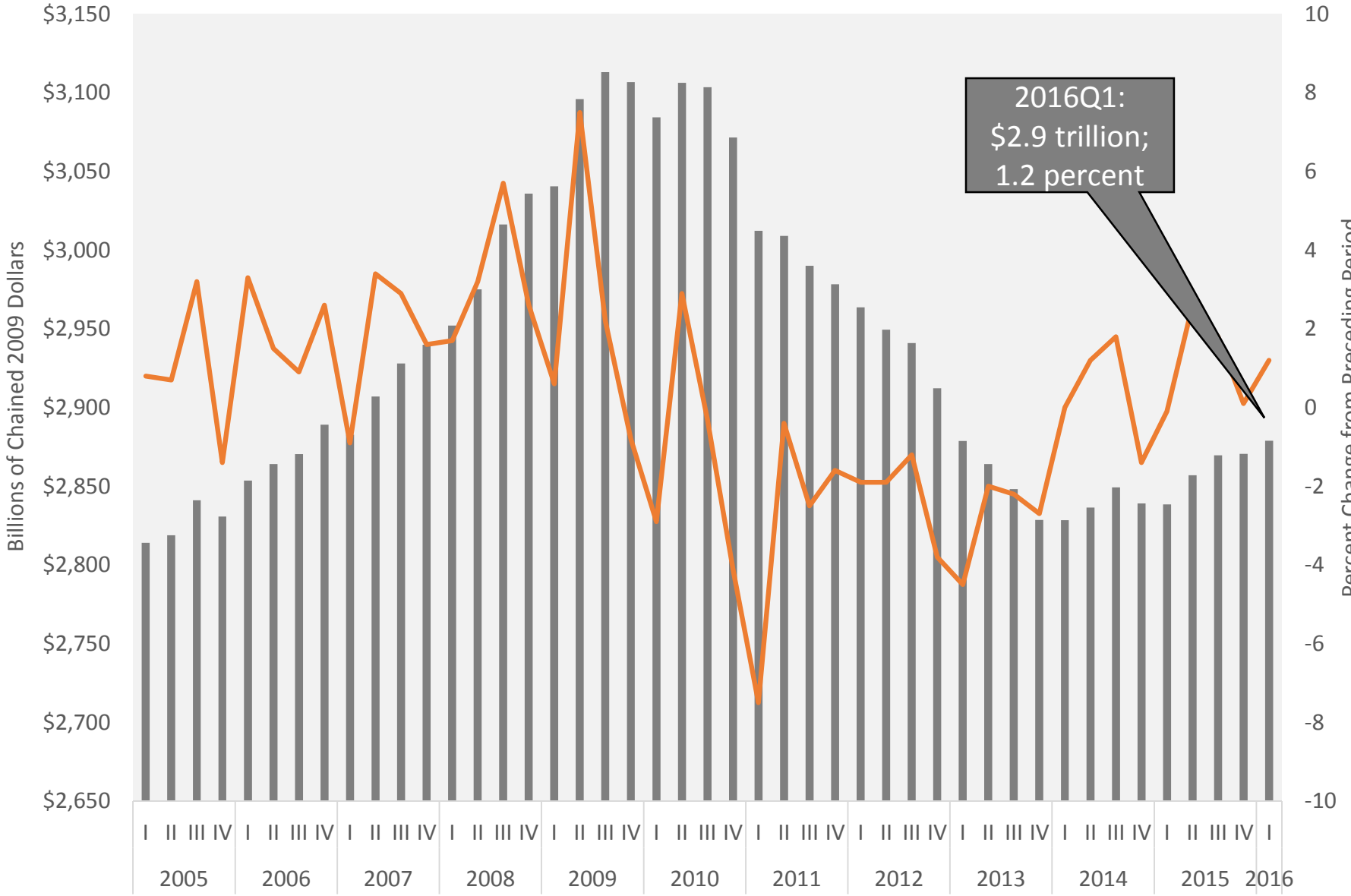
Source: BEA

U.S. Government Spending

2005Q1–2016Q1, Billions of Chained 2009 Dollars



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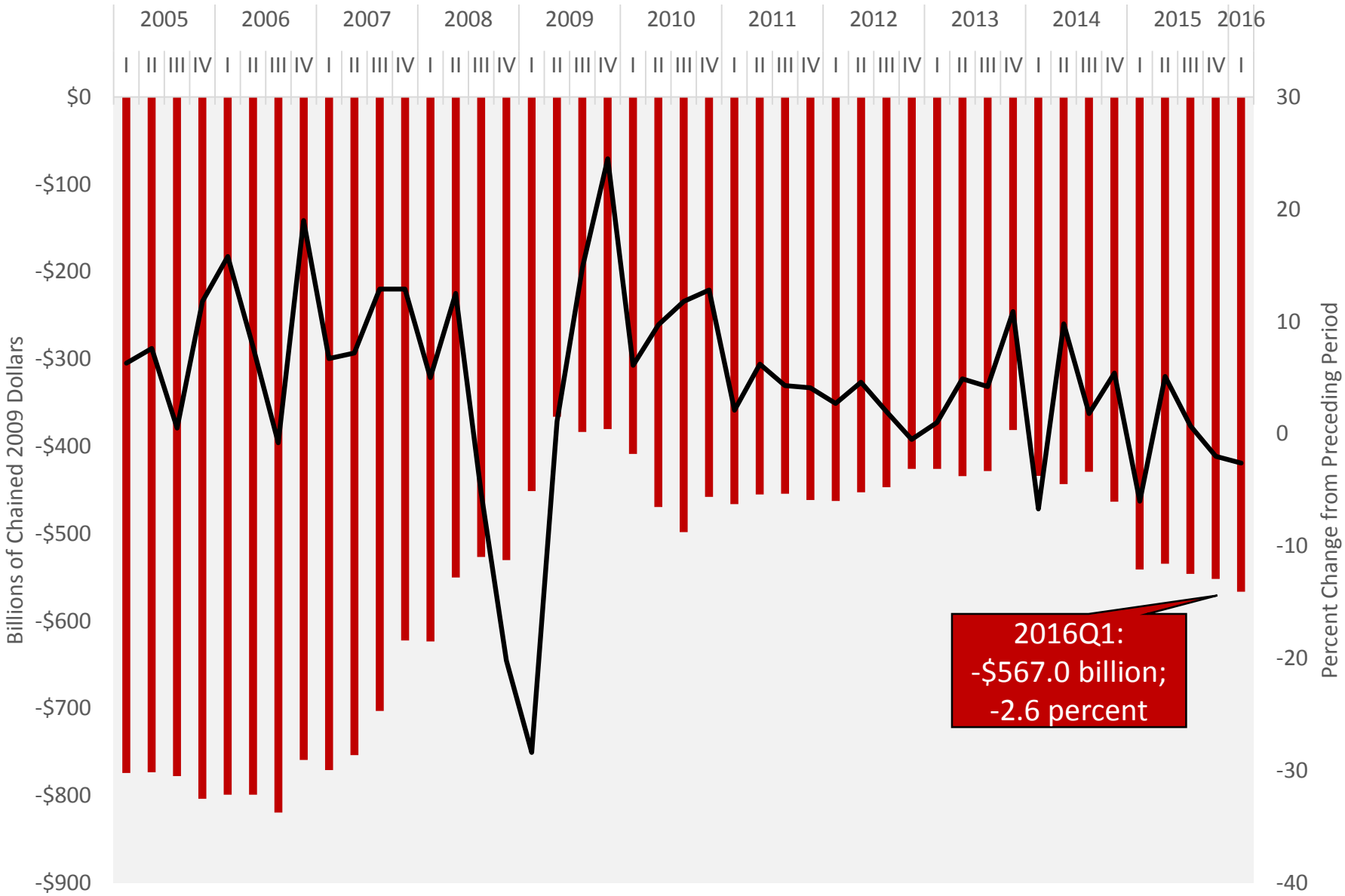
Source: BEA

U.S. Net Exports

2005Q1–2016Q1, Billions of Chained 2009 Dollars



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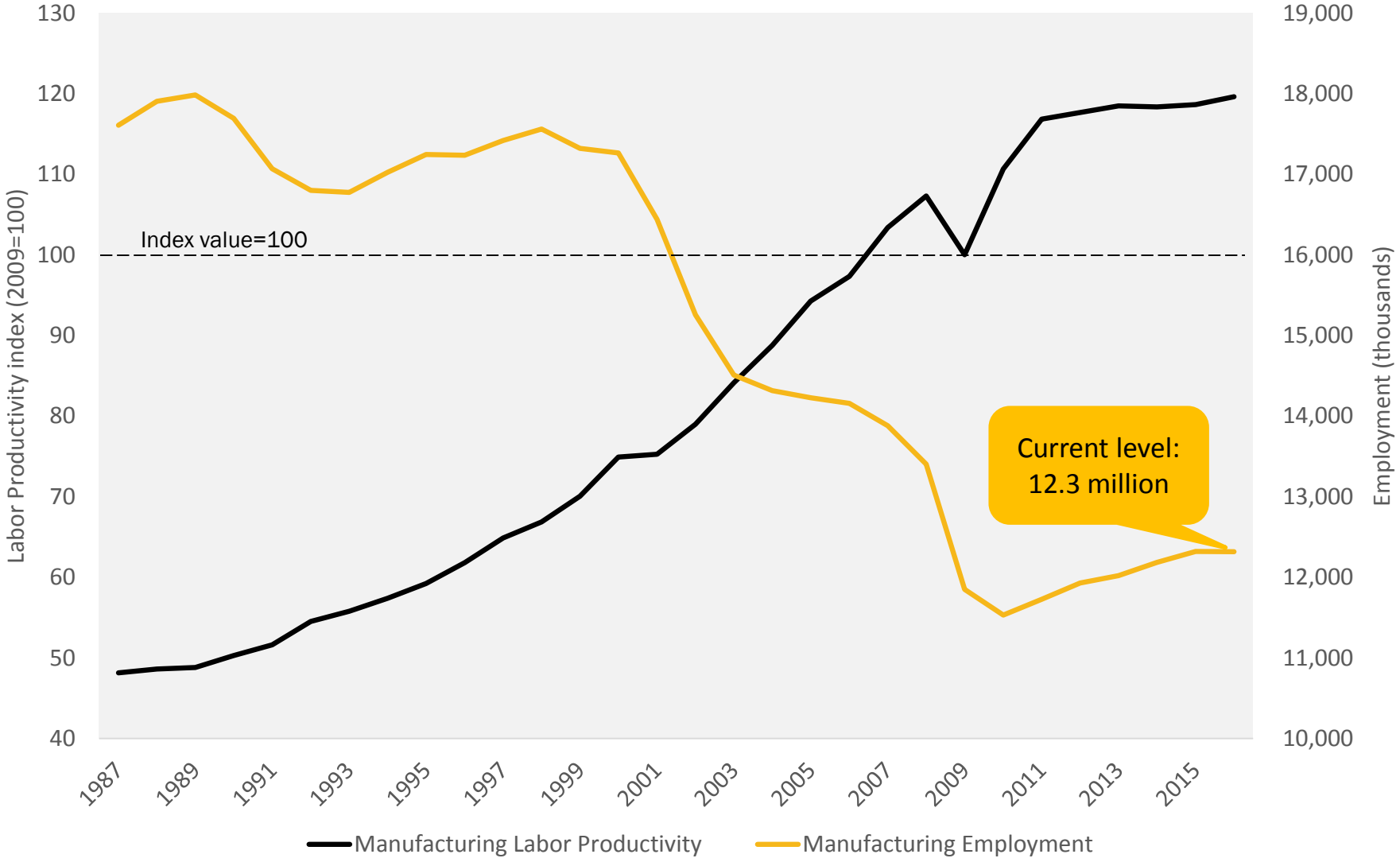
Source: BEA

Manufacturing: Labor Productivity vs. Employment

Nation-wide, 1987–2016



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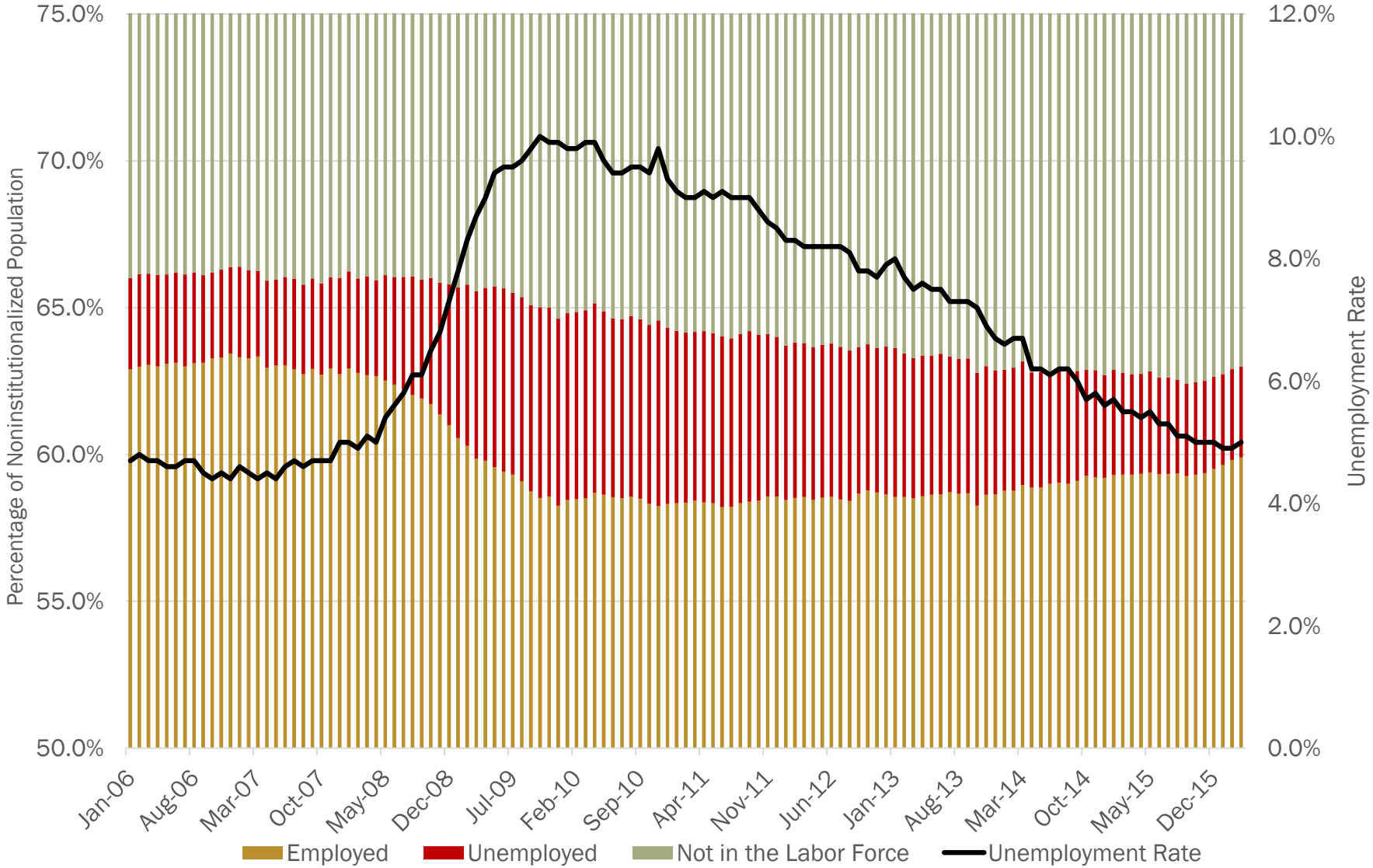
Source: BLS, RESI

Labor Force Participation vs. the Unemployment Rate

Jan. 2006–Mar. 2016



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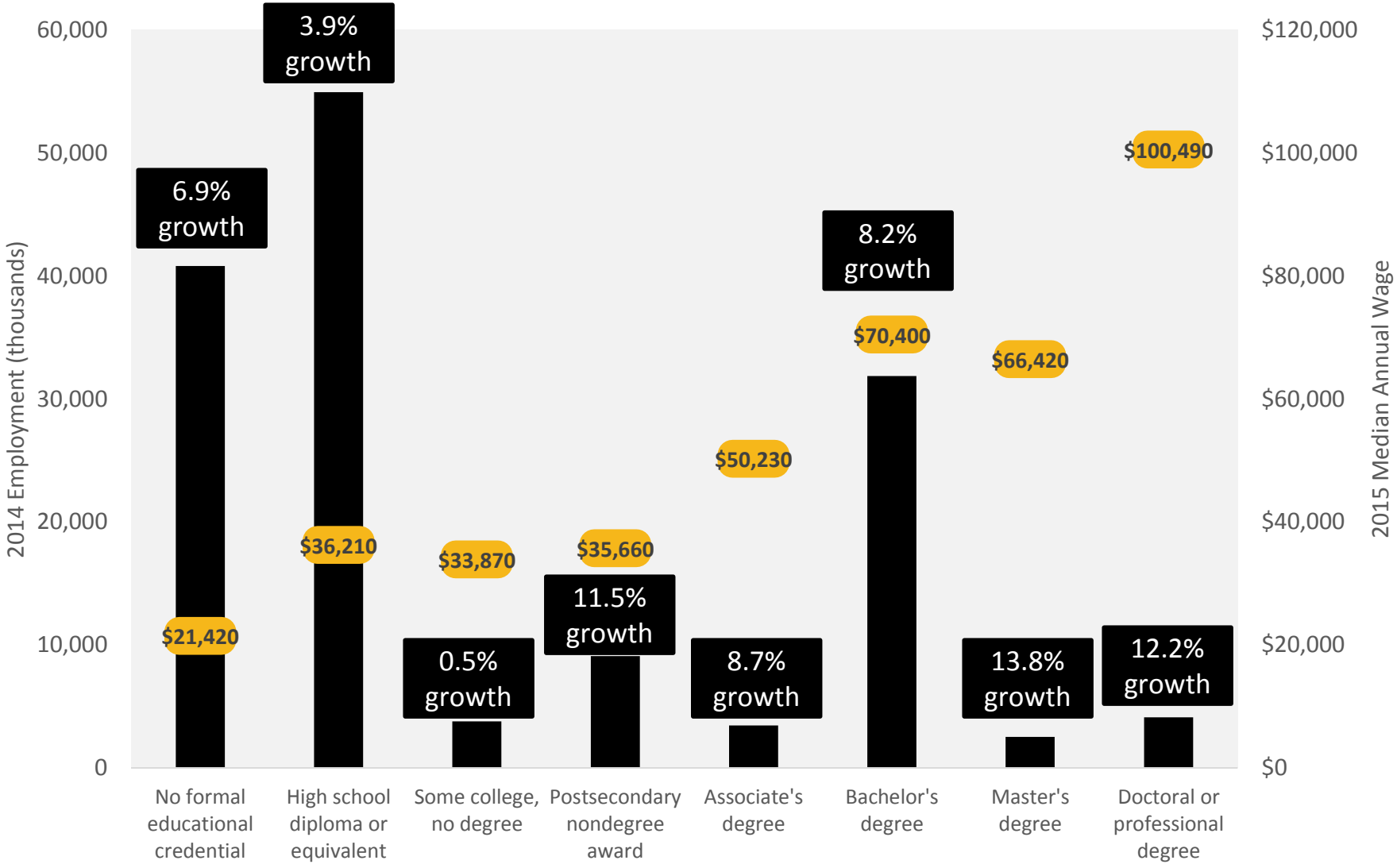
Source: BLS

Employment Growth by Educational Attainment

2014-2024



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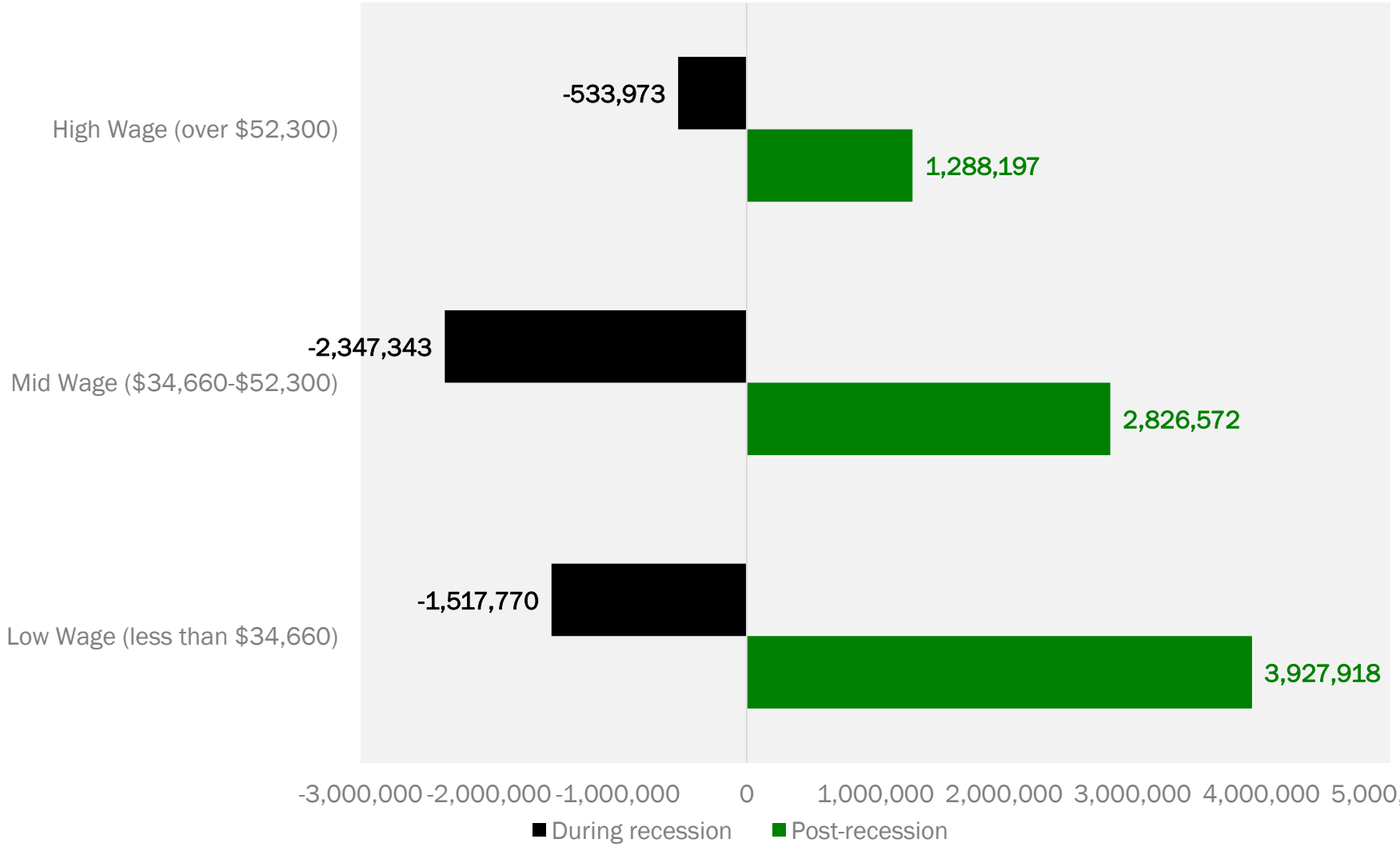
Source: BLS

National Private-Sector Employment Quality

During (2008–2010) and After (2010–2014) Recession

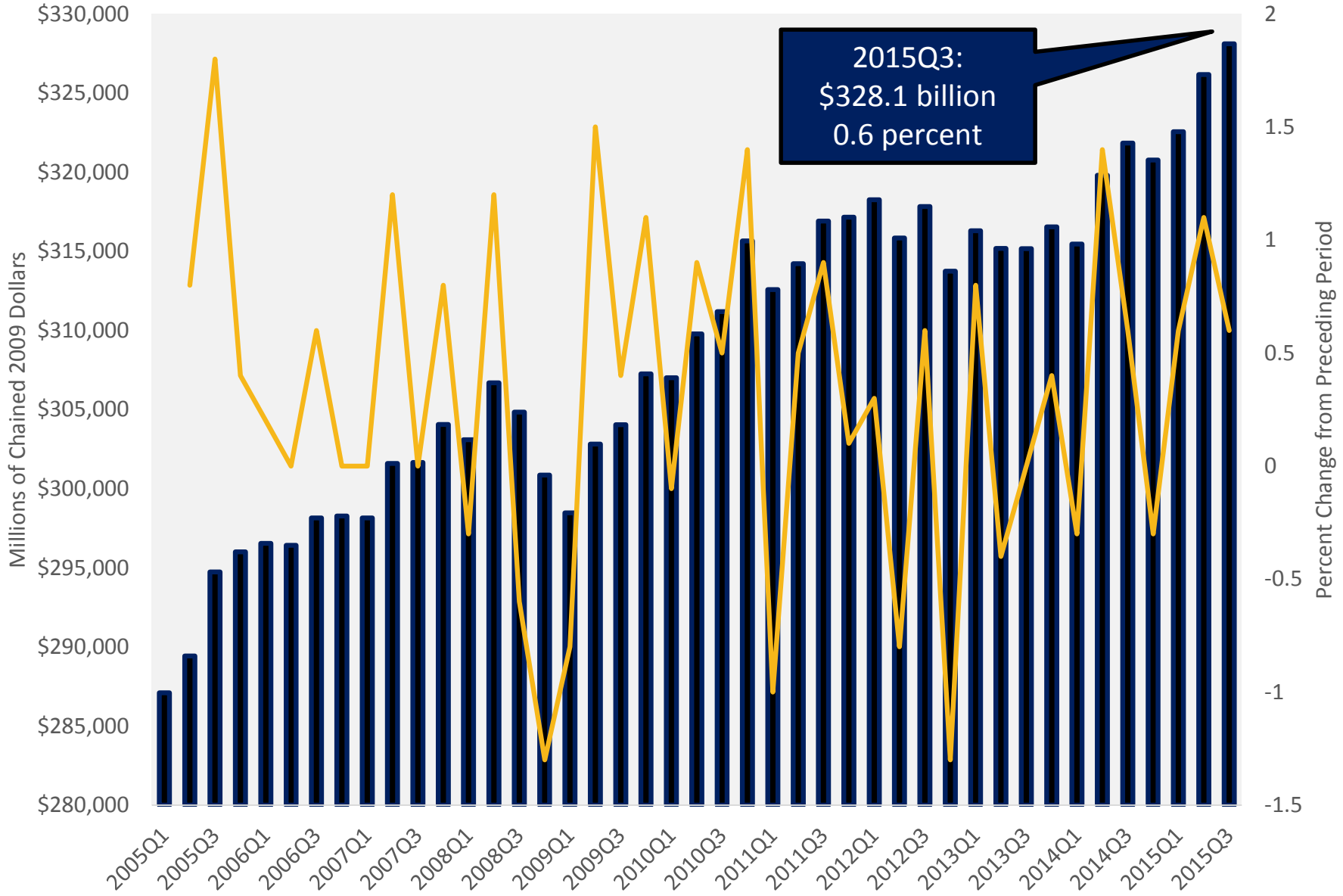


Sources: BLS, National Employment Law Project (NELP), RESI

The Maryland Economy

Maryland Real Gross State Product

2005Q1–2015Q3, Millions of Chained 2009 Dollars



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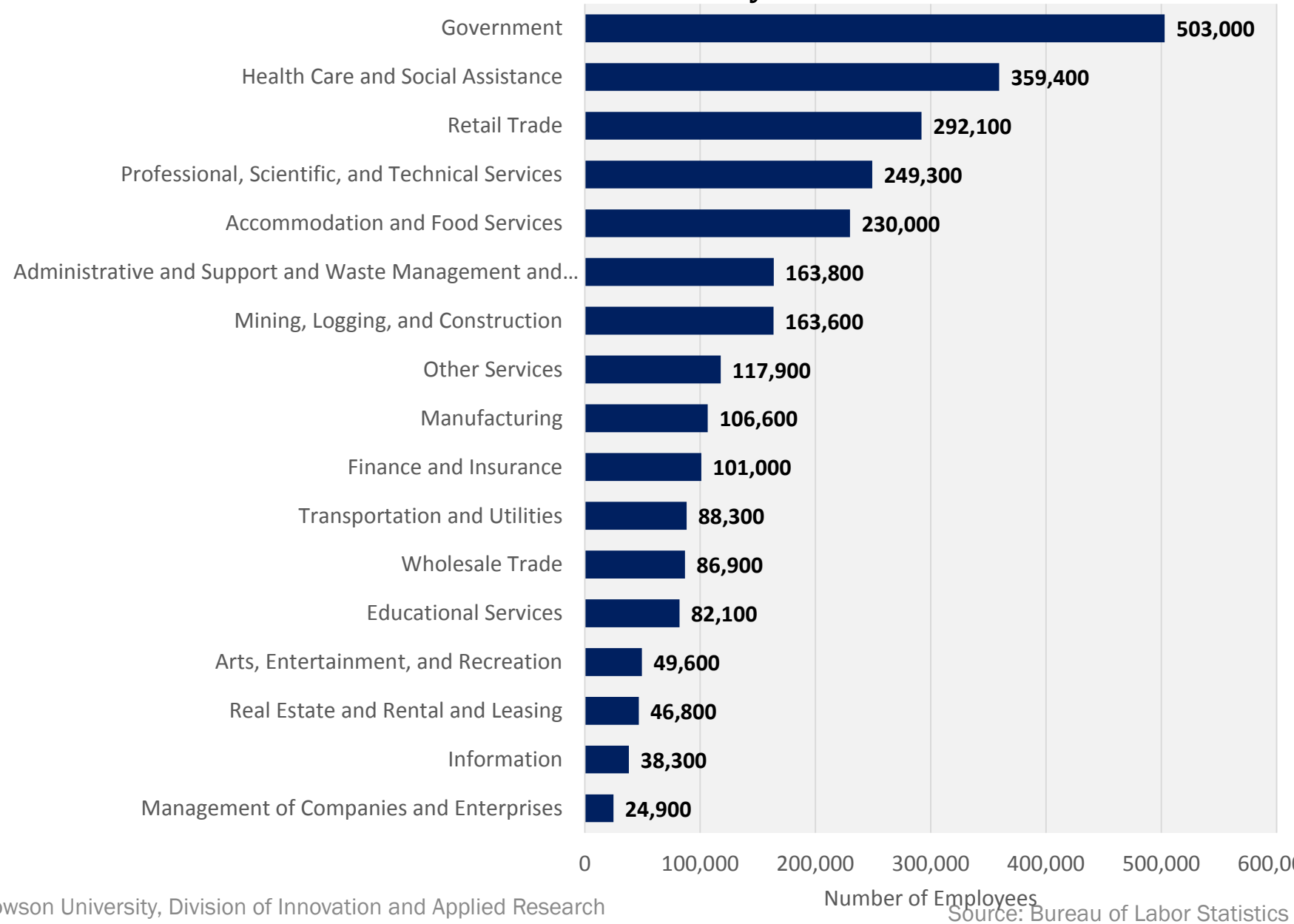
Source: BEA

Employment by Sector

March 2016, Maryland



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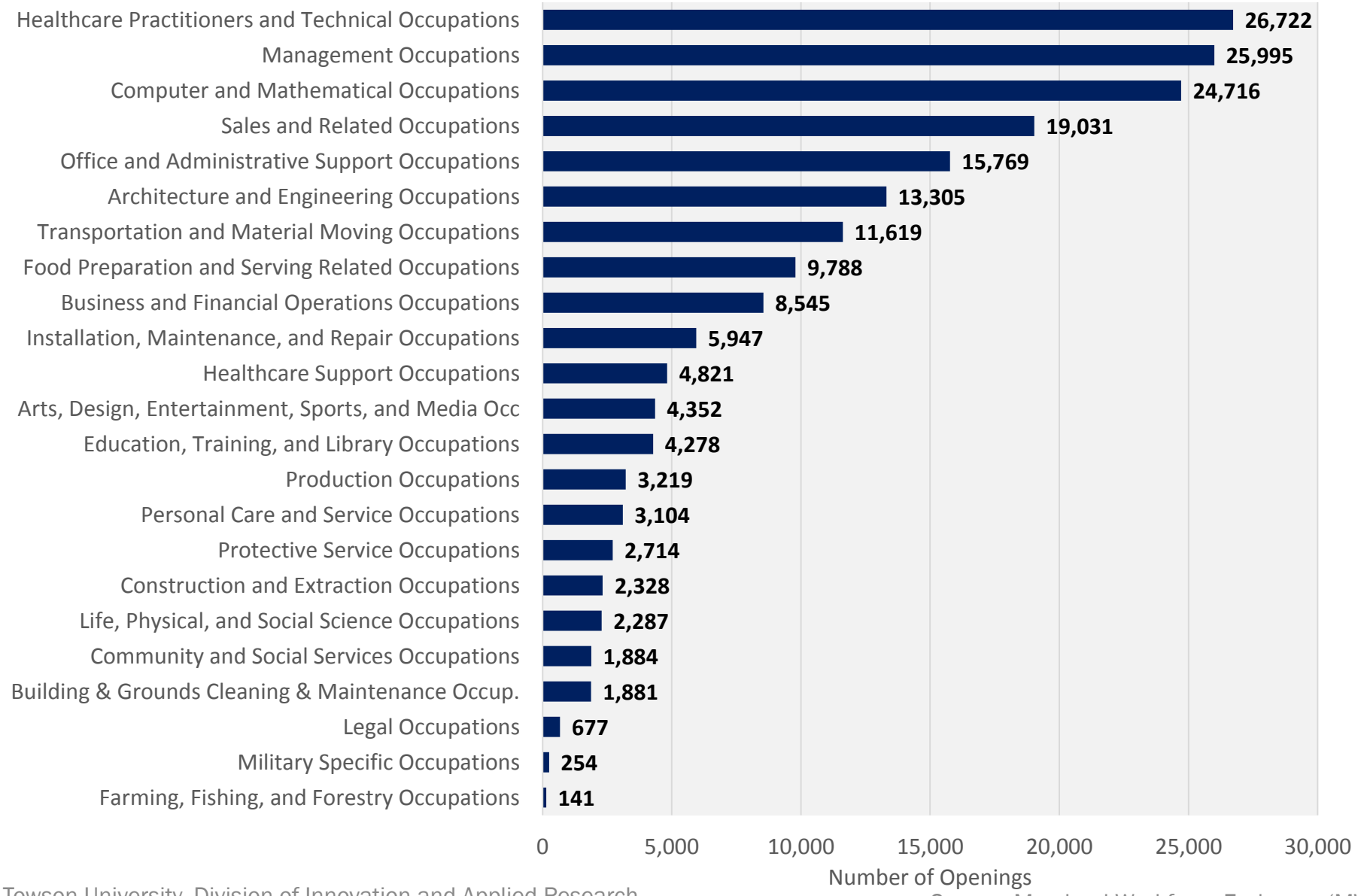
Source: Bureau of Labor Statistics (BLS)

Job Openings by Occupation Group

Maryland, April 2016



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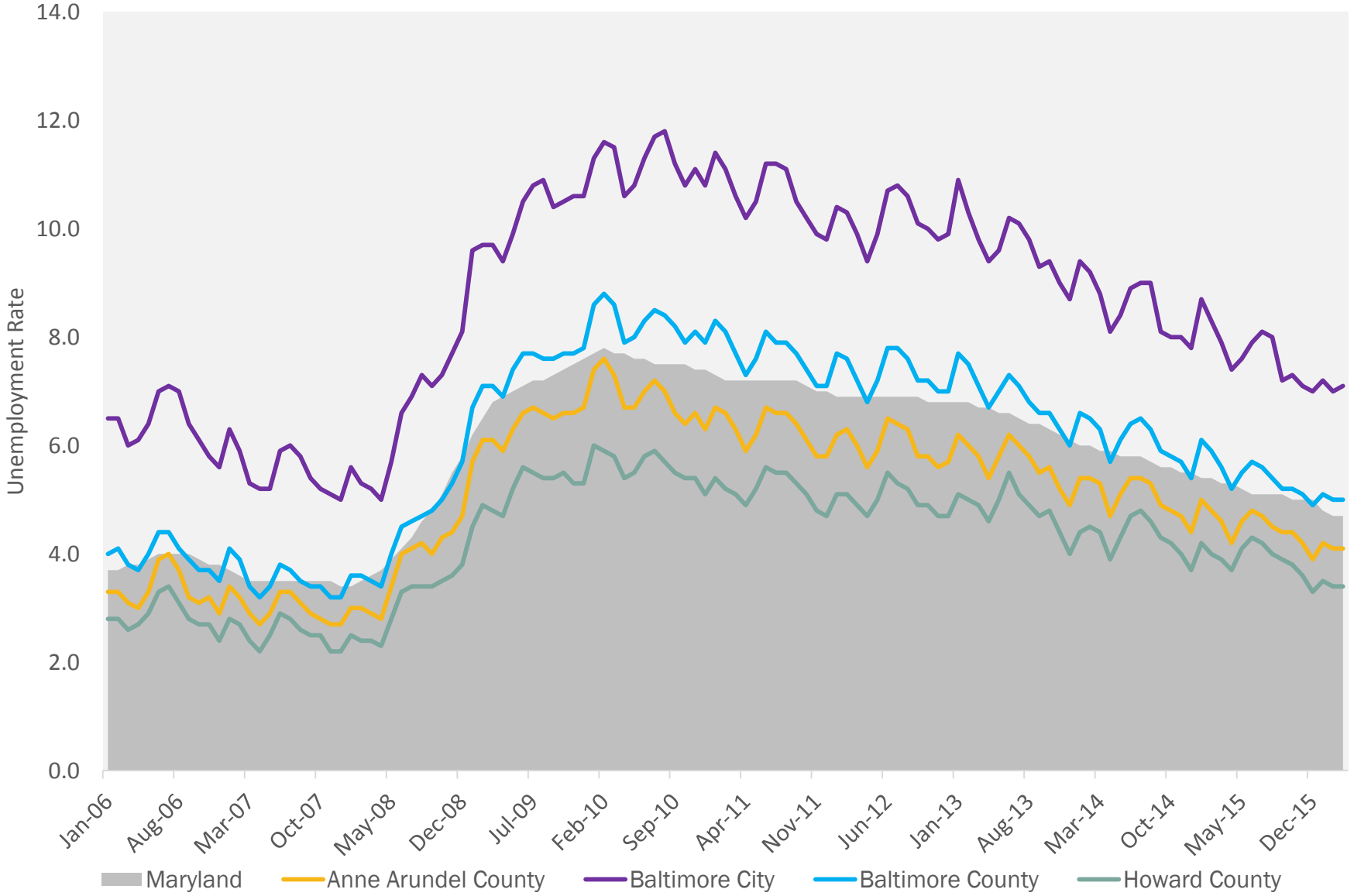
Source: Maryland Workforce Exchange (MWE)

Local Unemployment Rates

Jan. 2006–Mar. 2016



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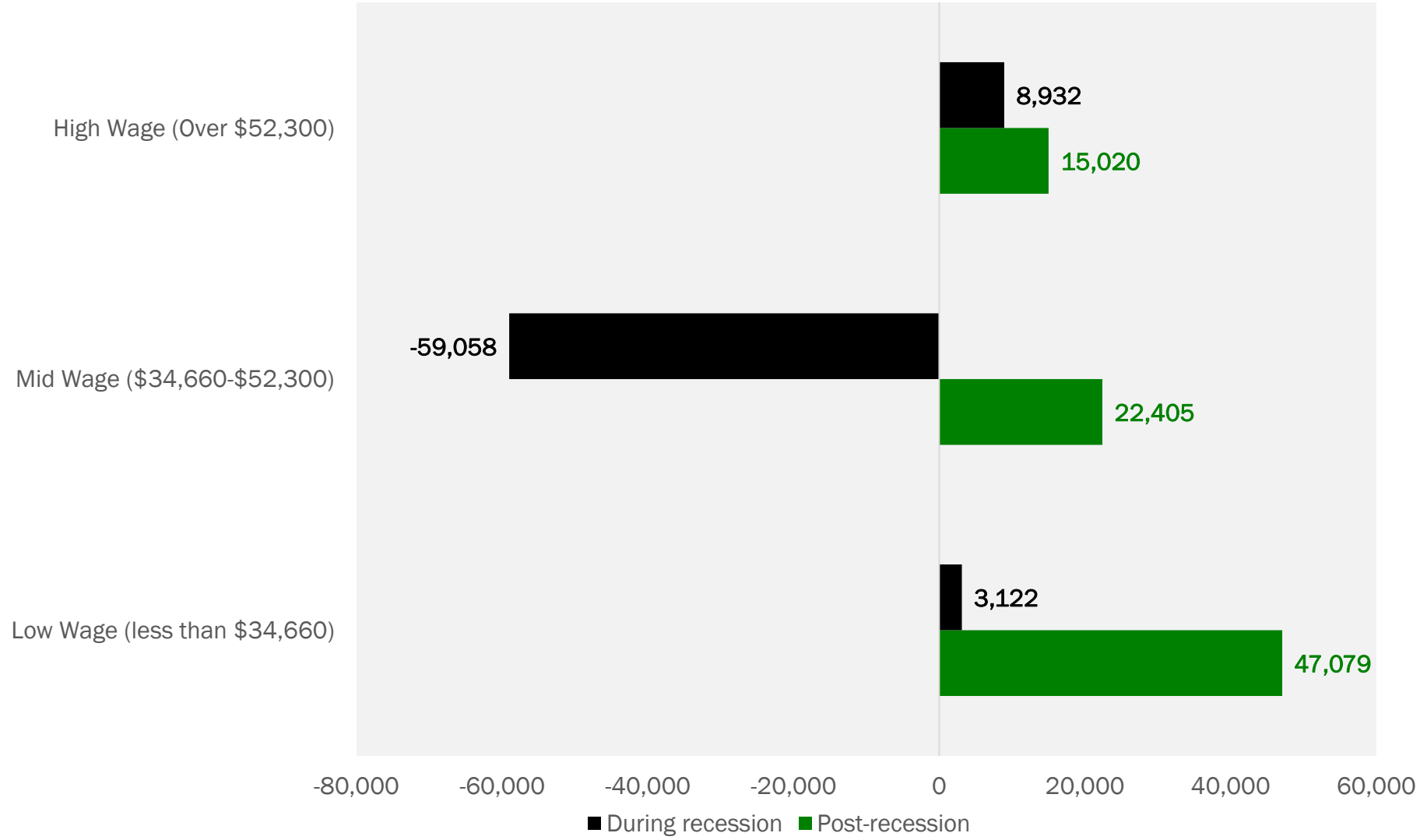
Source: Bureau of Labor Statistics (BLS)

Maryland Private-Sector Employment Quality

During (2008–2010) and After (2010–2014) Recession



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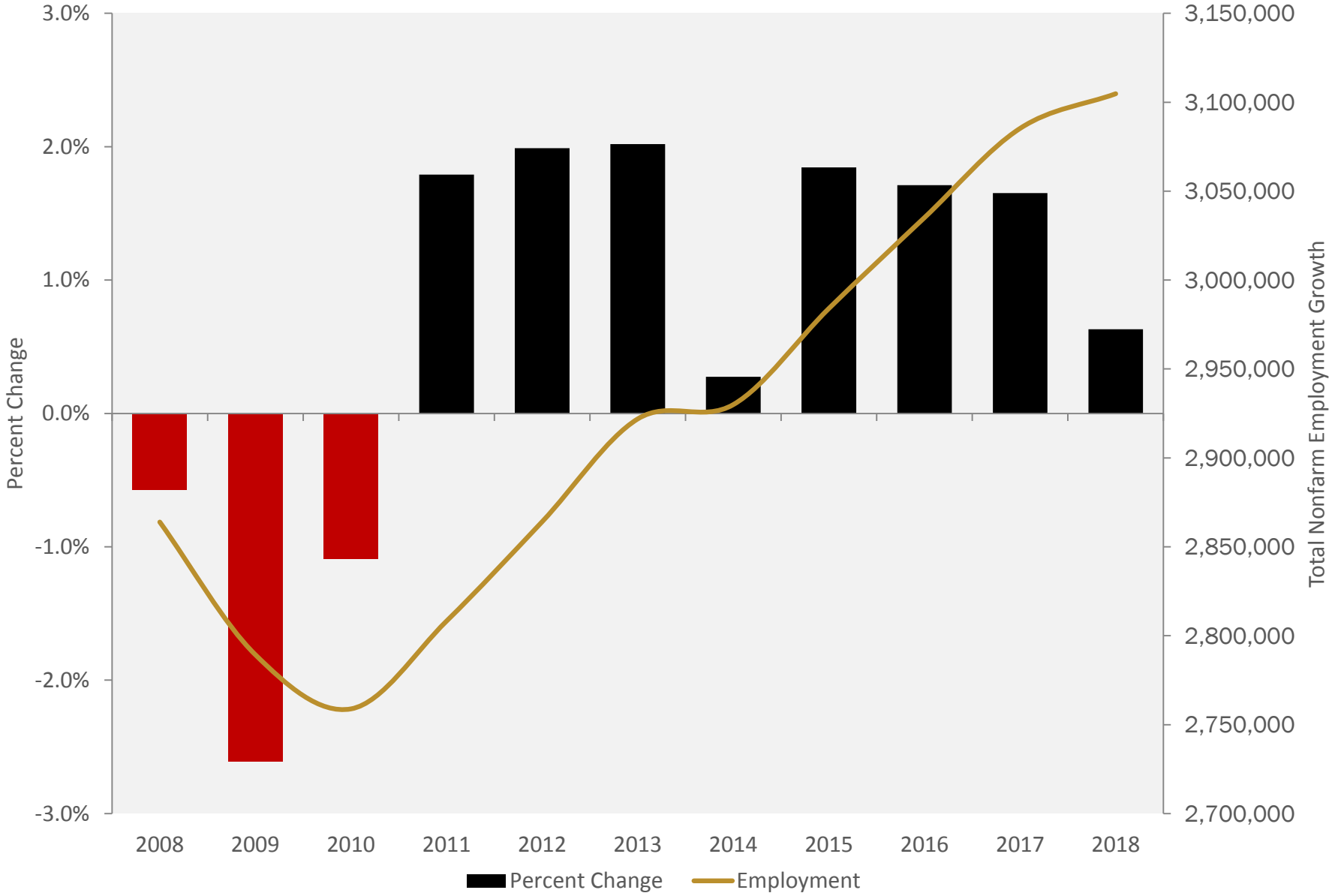
Sources: BLS, NELP, RESI

RESI Employment Outlook

2008–2018, Maryland Total Nonfarm Employment Growth



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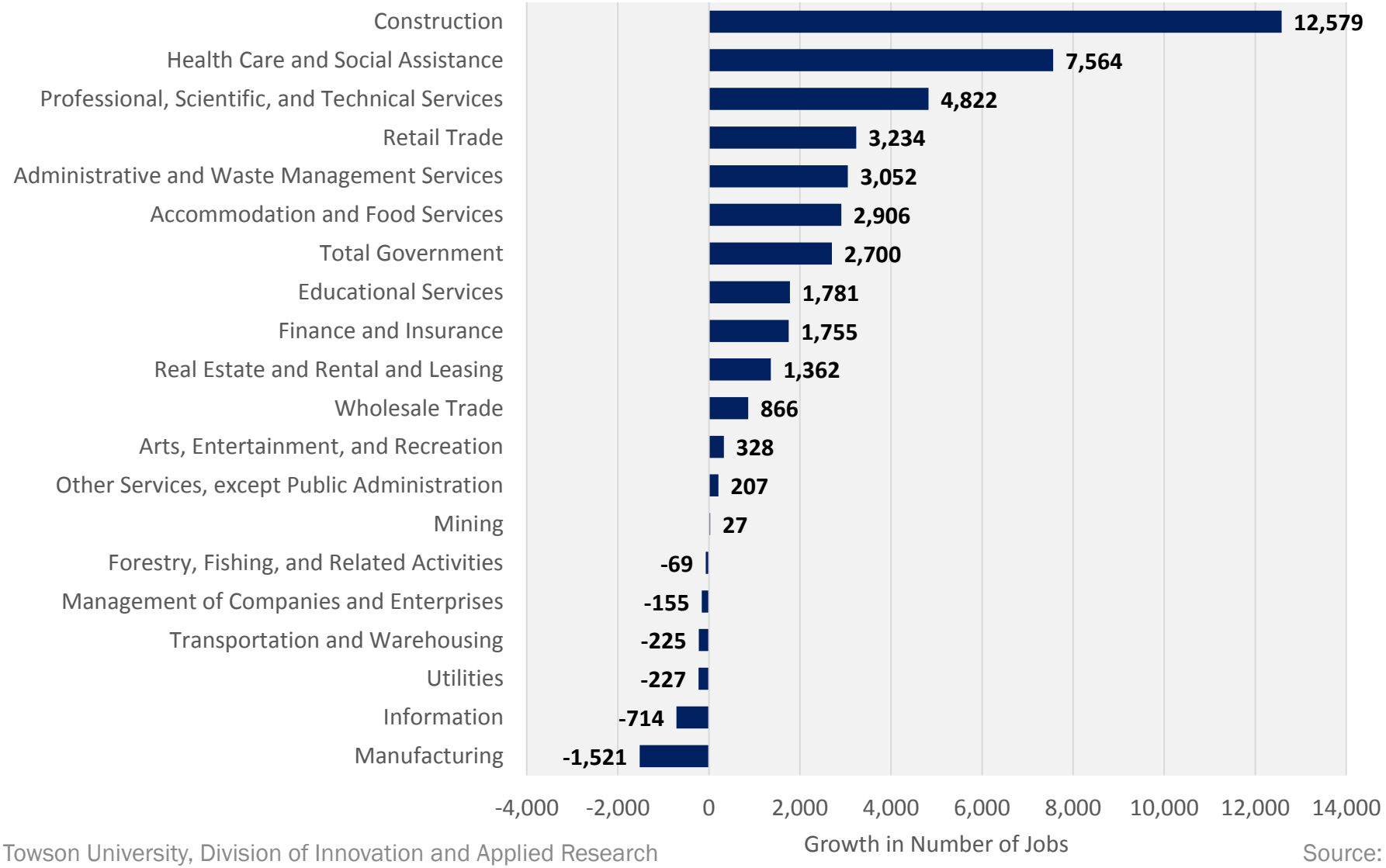
Source: RESI

Forecasted Employment Growth by Sector

2016-2018 Annual Average, Maryland



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Source: RESI

Occupational Forecasting

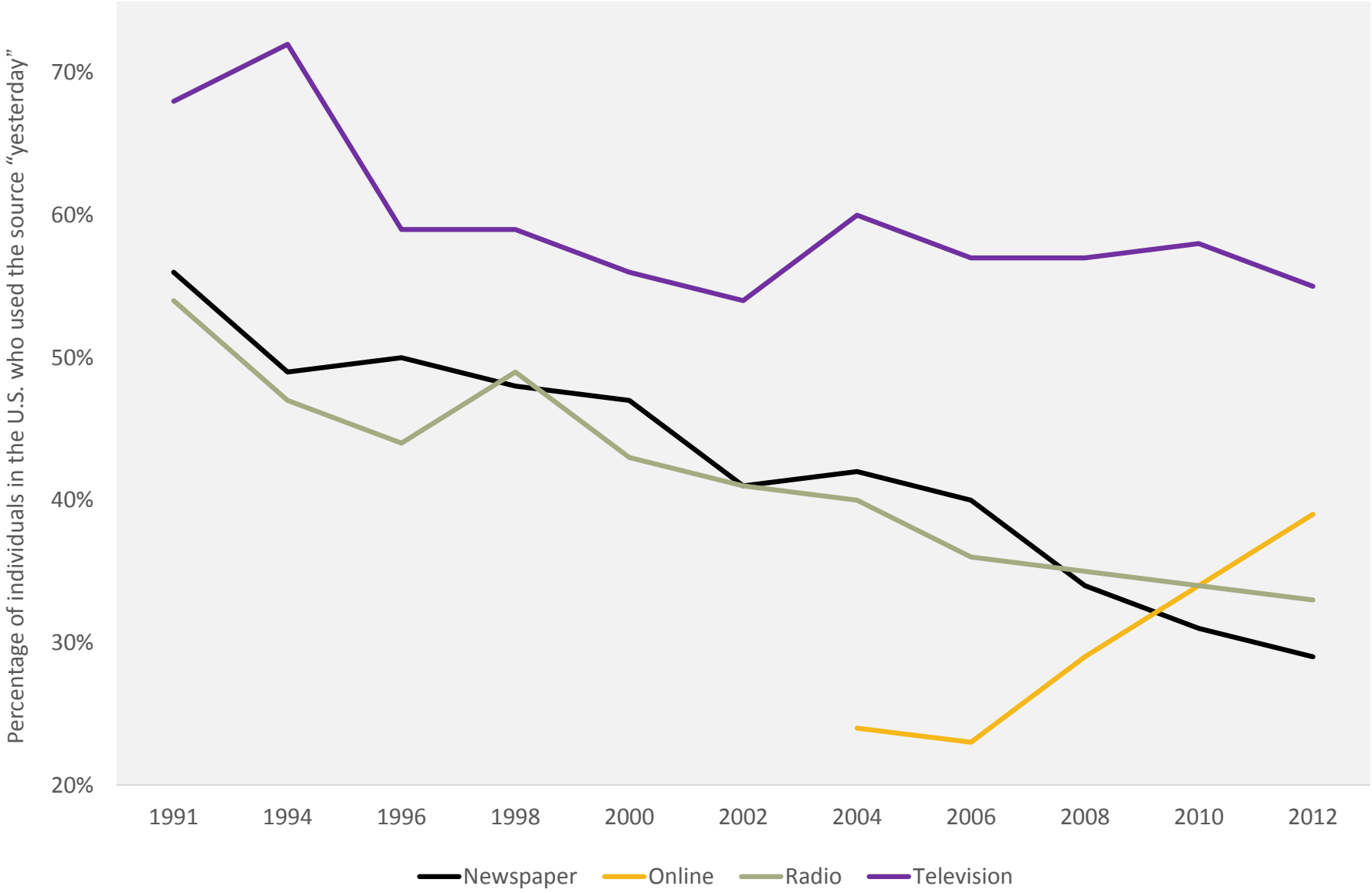
OCCUPATIONAL FORECASTING

- Estimates the number of job openings (or growth/decline of openings) for a given occupation
- Is driven by economic factors/indicators
  - Business cycle
- Is driven by non-economic factors
  - Demographics
  - Technology changes
  - Policy changes.

Drivers of Occupational Change

Use of News Sources by Platform

1991-2012



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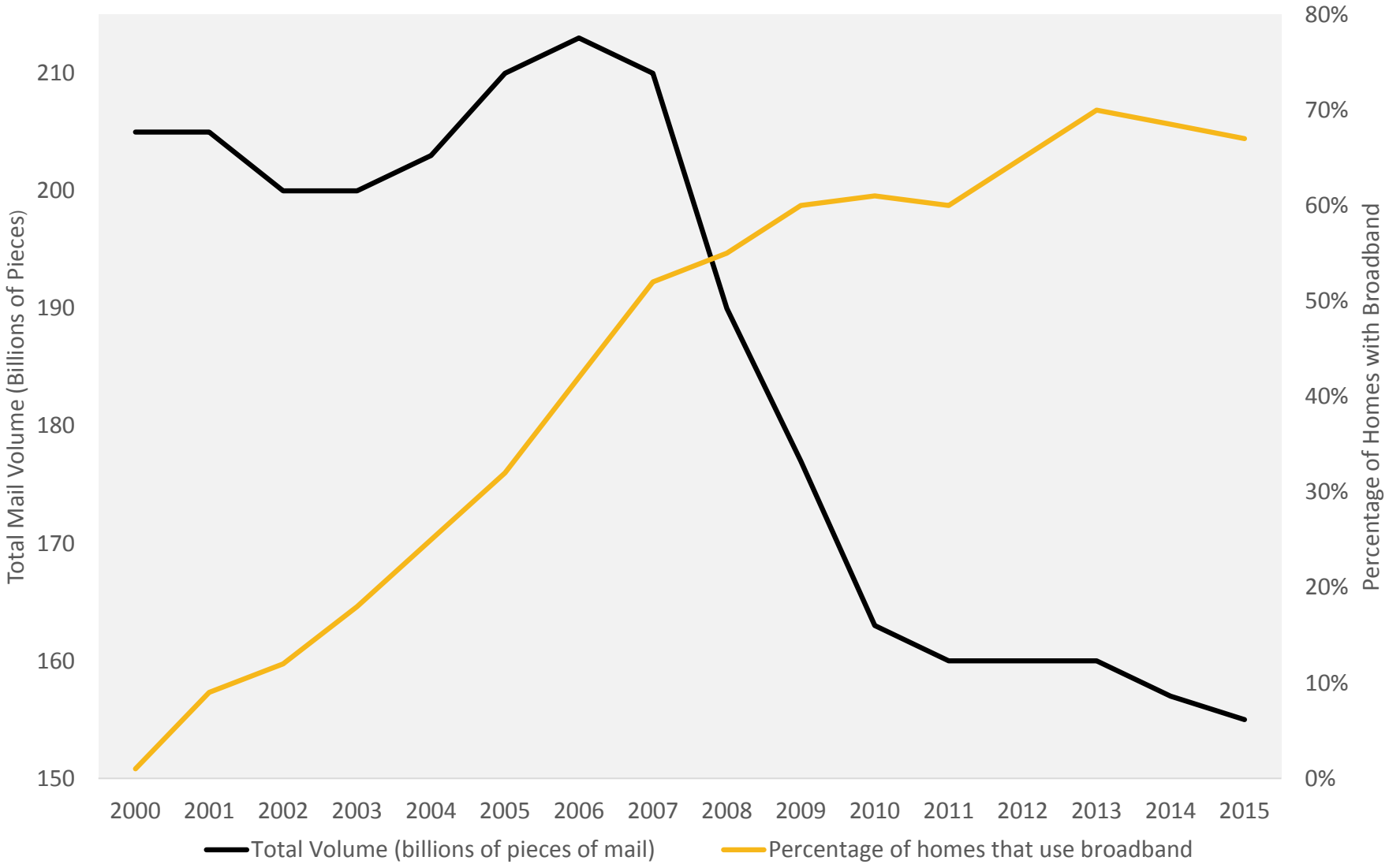
Source: Pew Research Center

Volume of U.S. Mail vs. Percentage of Homes with Broadband

2000-2015



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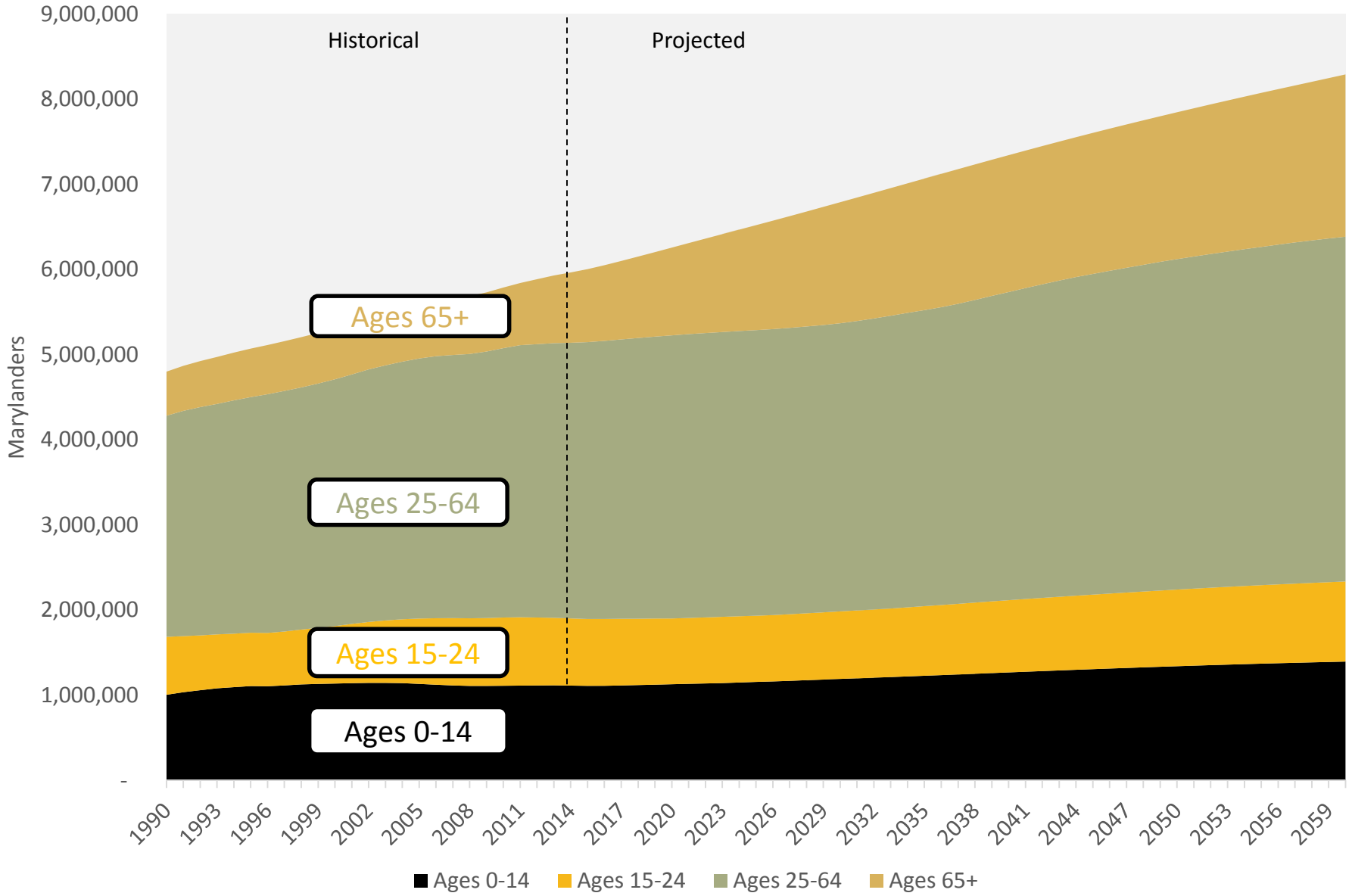
Sources: Boston Consulting Group, Pew Research Center, RESI

Maryland's Population

Composition by Age, 1990-2060



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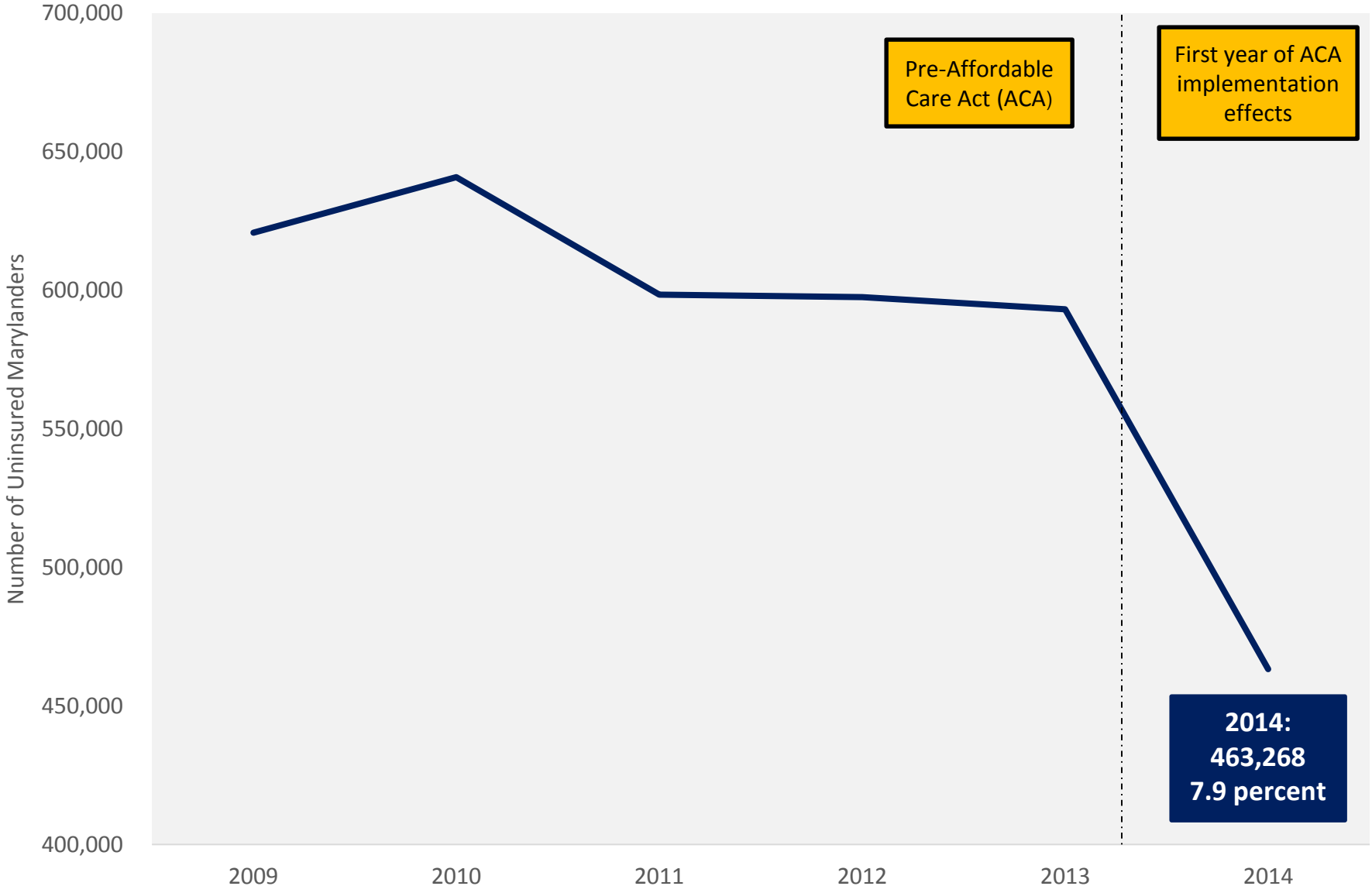
Source: REMI PI+

Number of Uninsured Marylanders

2009-2014



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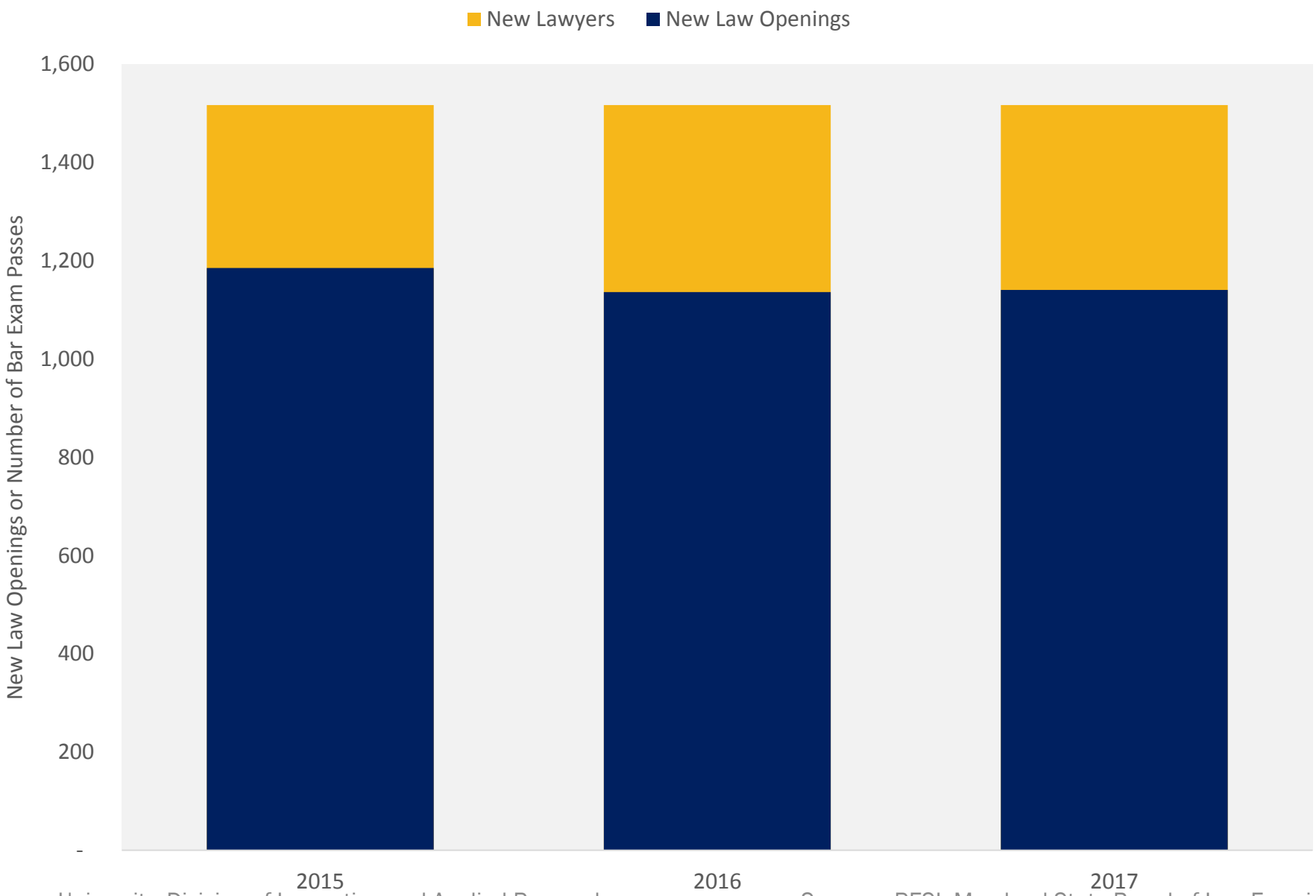
Sources: U.S. Census Bureau American Community Survey

Law Openings vs. New Lawyers

2015-2017, Maryland



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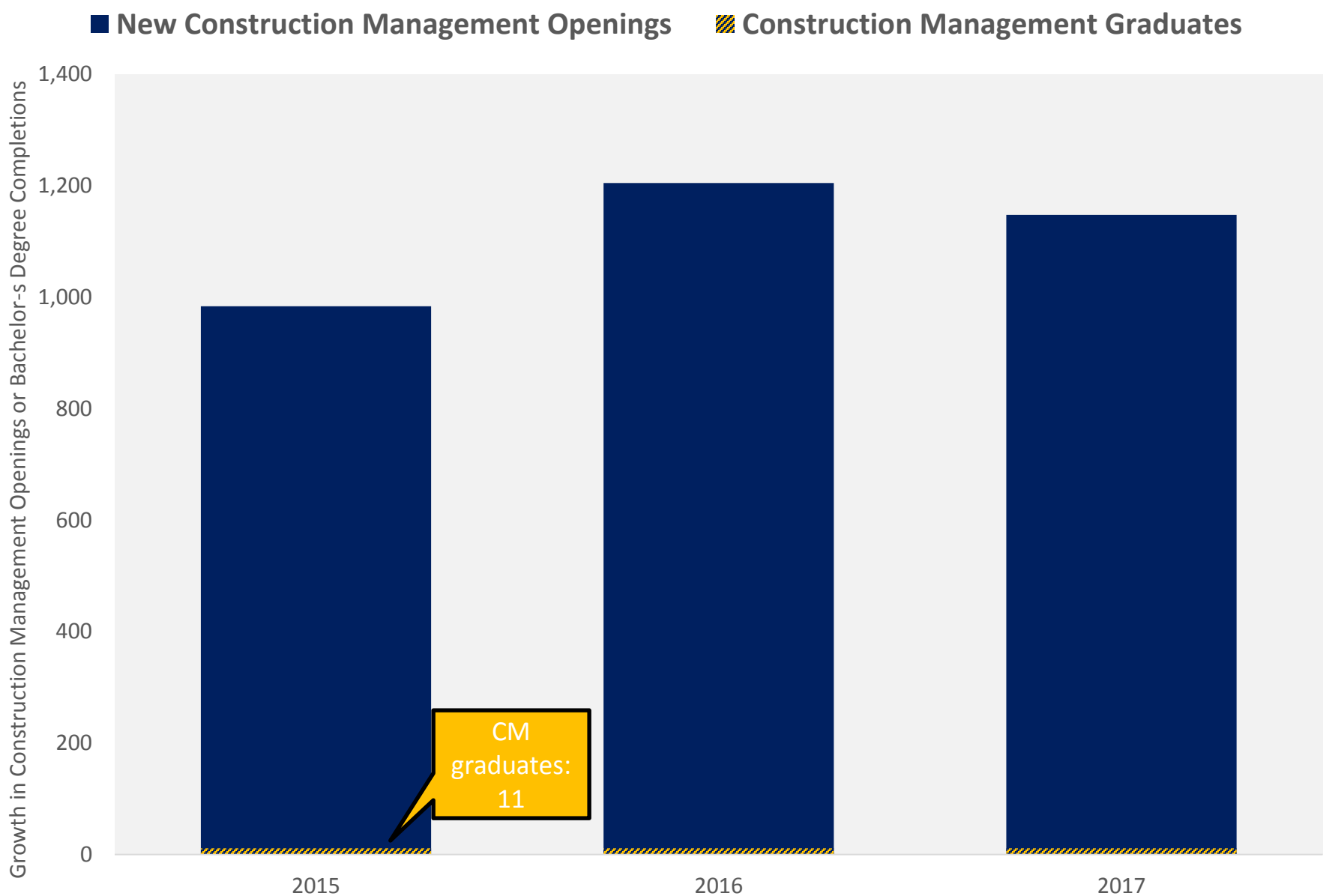
Sources: RESI, Maryland State Board of Law Examiners

Shortage in Construction Managers

2015-2017, Maryland



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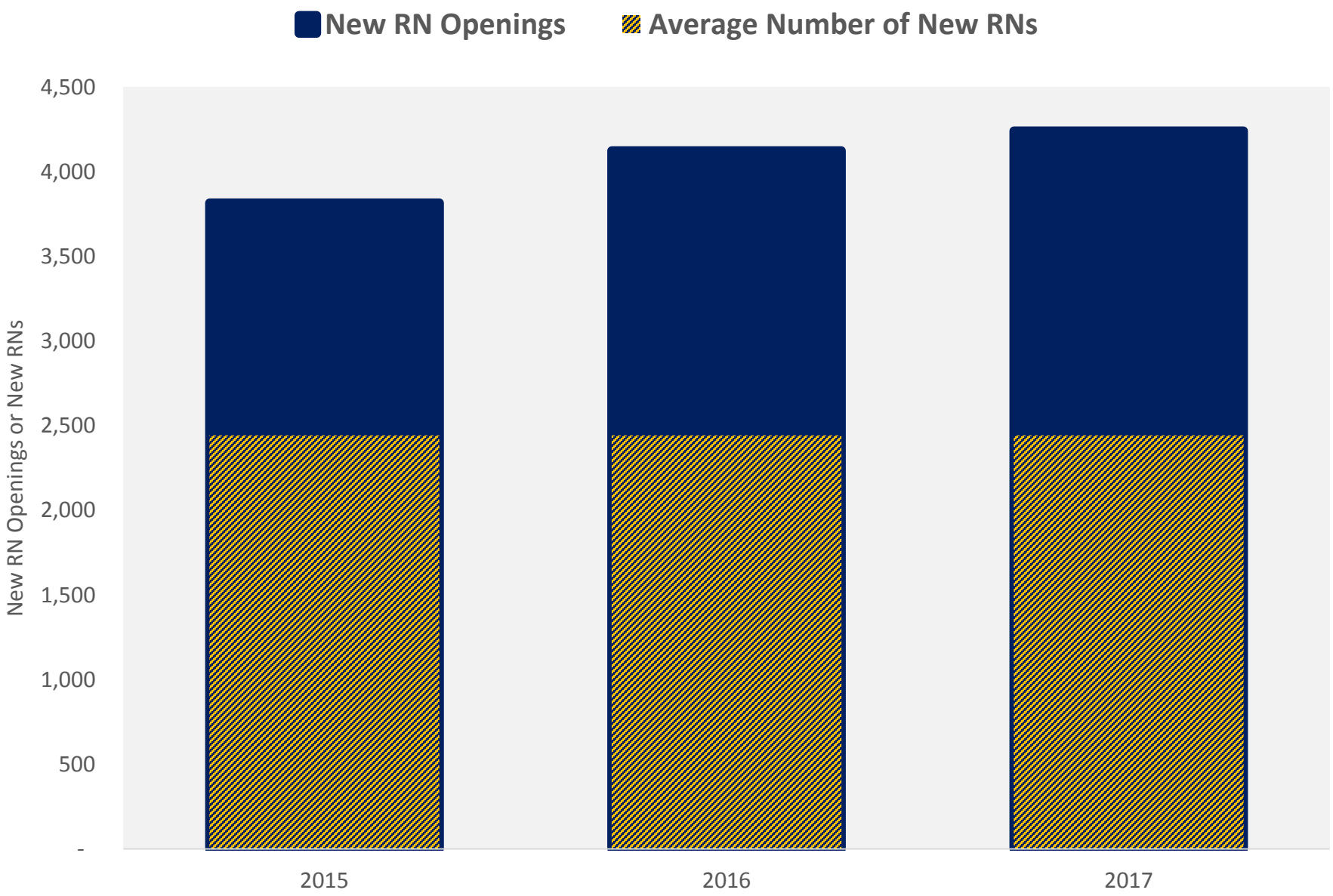
Sources: RESI, IPEDS

Shortage for Registered Nurses

2015-2017



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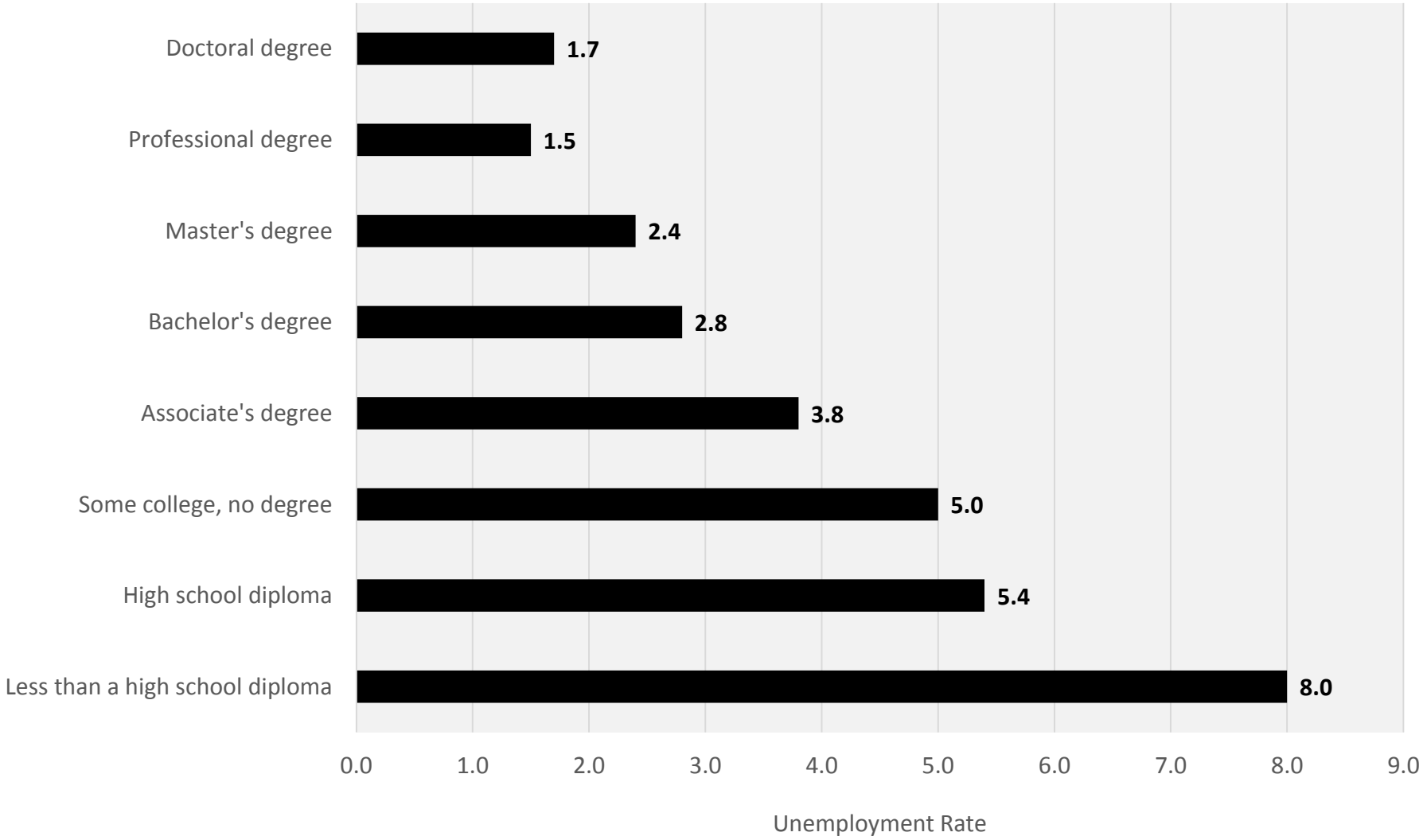
Sources: RESI, Maryland Board of Nursing

Unemployment Rate by Educational Attainment

2015



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Source: BLS

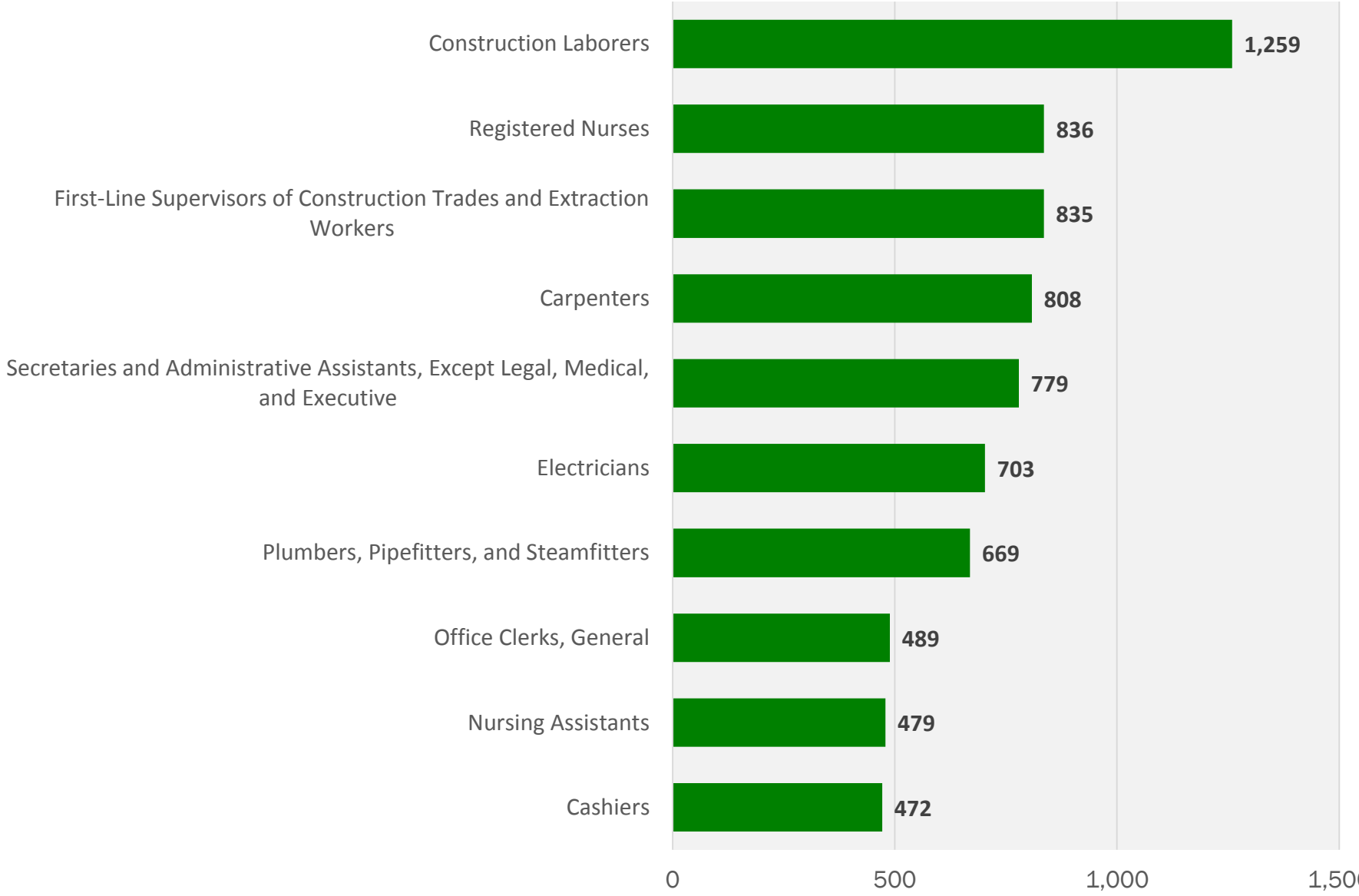
WHAT IS PROM?

Predictive Regional Occupational Matrix

- PROM is an industry-to-occupation tool.
- PROM provides occupation-level estimates, based on industry-level economic forecasts and economic impact analyses.
  - Eg: If the *Healthcare and Social Assistance* sector grows, will there be a need for more doctors, nurses, sonography technologists, phlebotomists, etc.?
- Predictions are custom tailored by state.
- Predictors include information such as:
  - Educational Requirements
  - Related Careers
    - For potential job changes
    - For career path planning
  - Wages.

Top Ten Occupations Overall

Maryland, Average Annual Growth (2017–2019)



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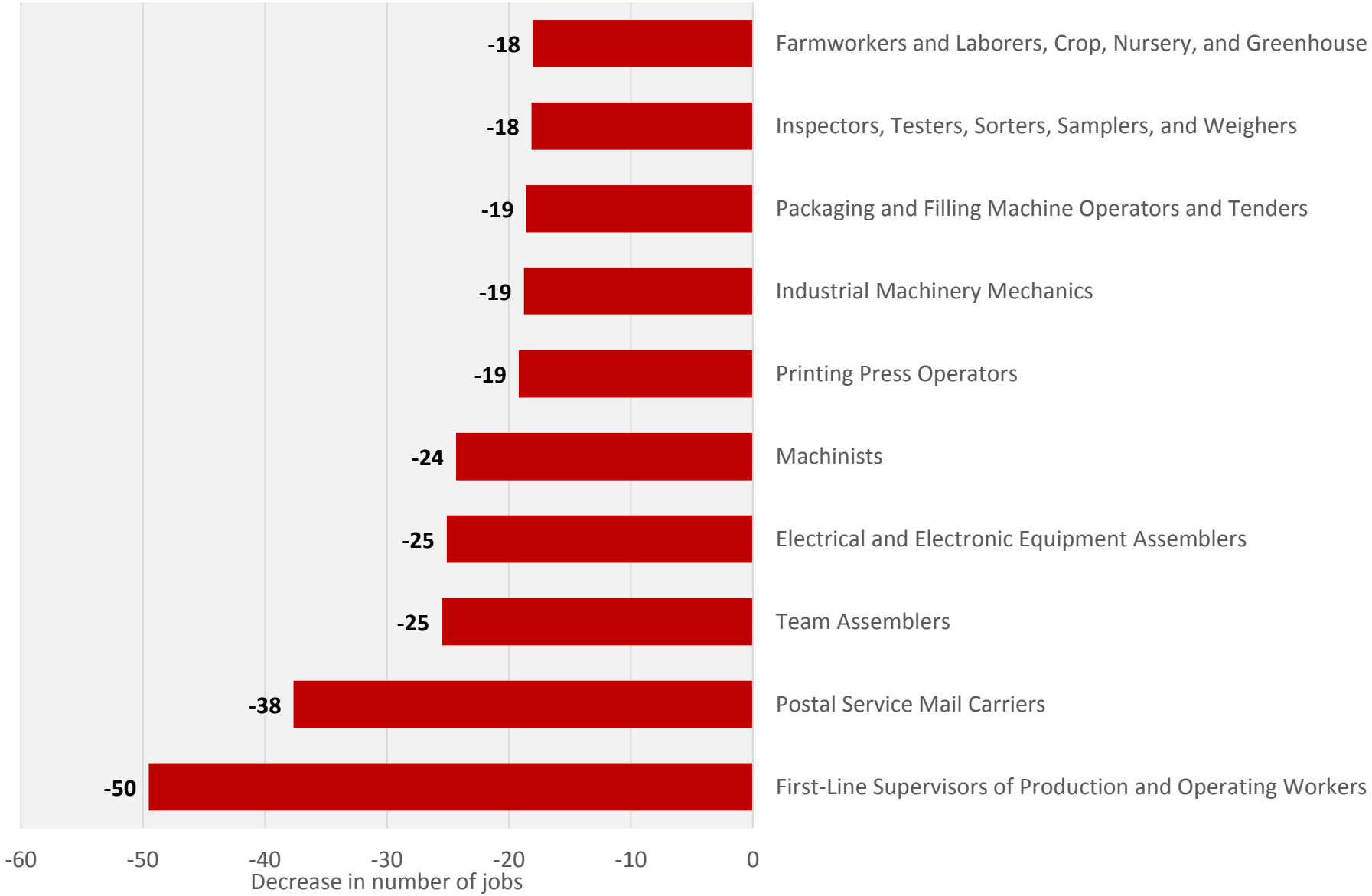
Sources: REMI PI+, RESI

Bottom Ten Occupations Overall

Maryland, Average Annual Loss (2017–2019)



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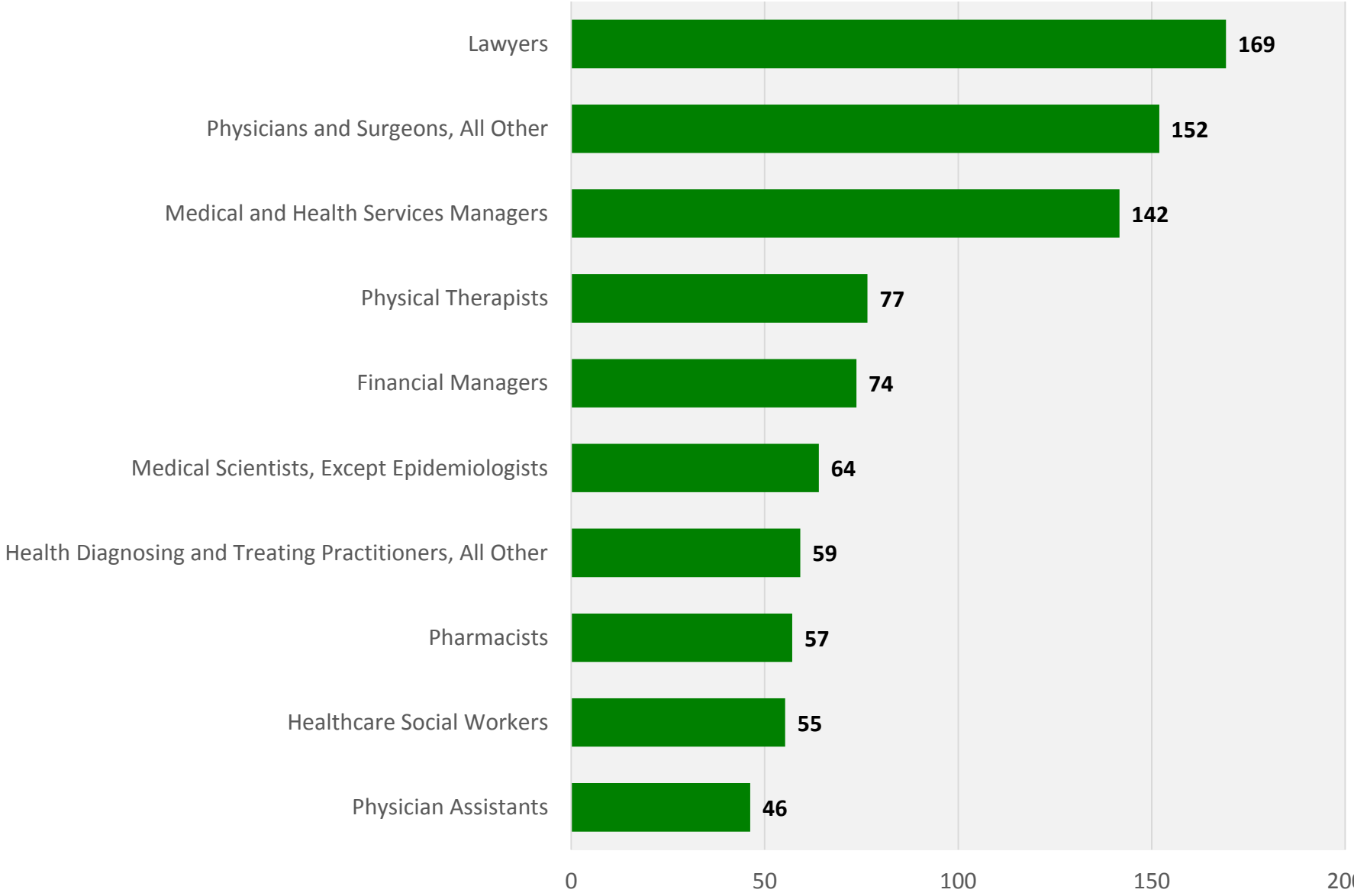
Sources: REMI PI+, RESI

Top Ten Job Zone 5 Occupations

Maryland, Average Annual Growth (2017–2019)



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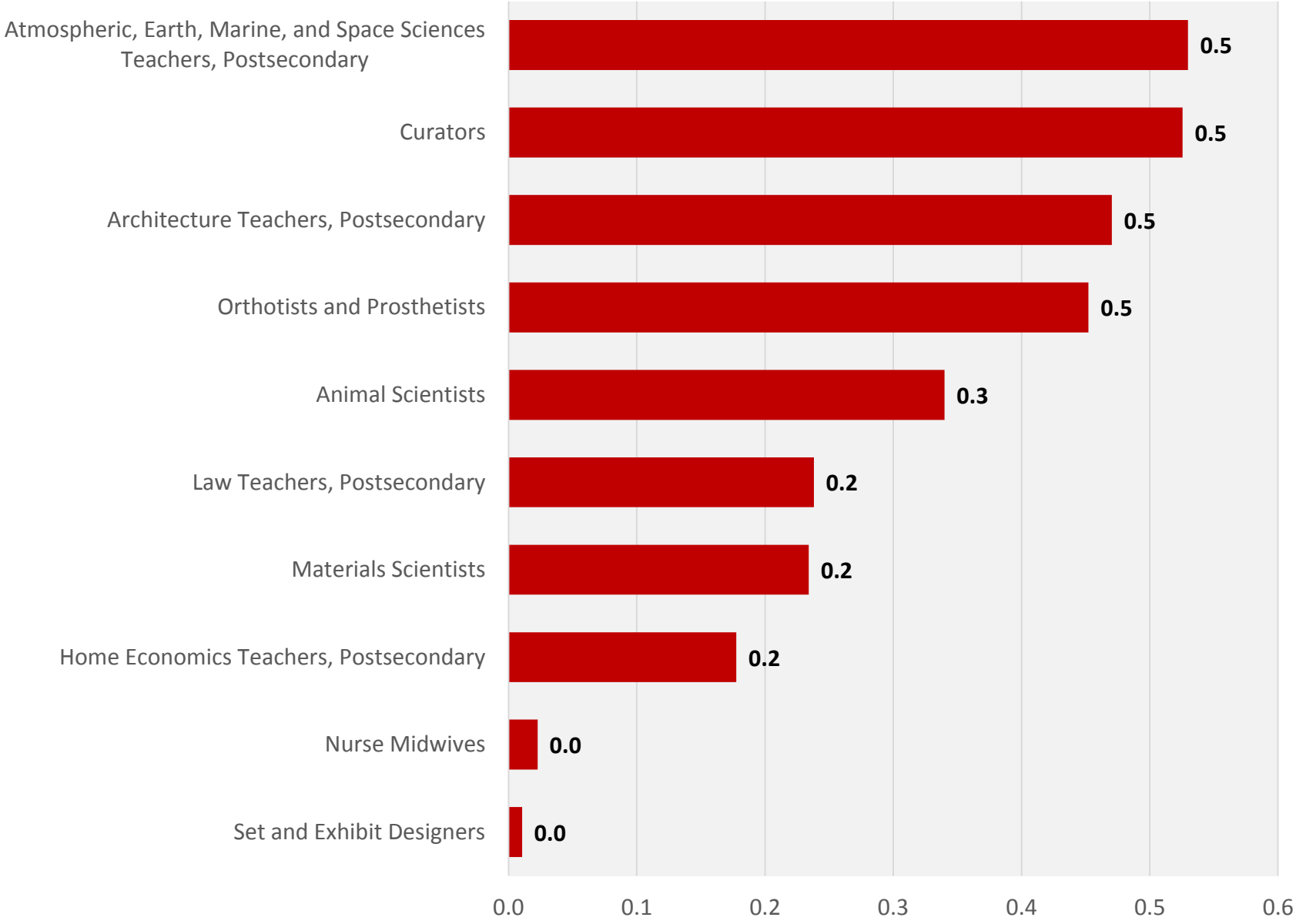
Sources: REMI PI+, RESI

Bottom Ten Job Zone 5 Occupations

Maryland, Average Annual Growth (2017–2019)



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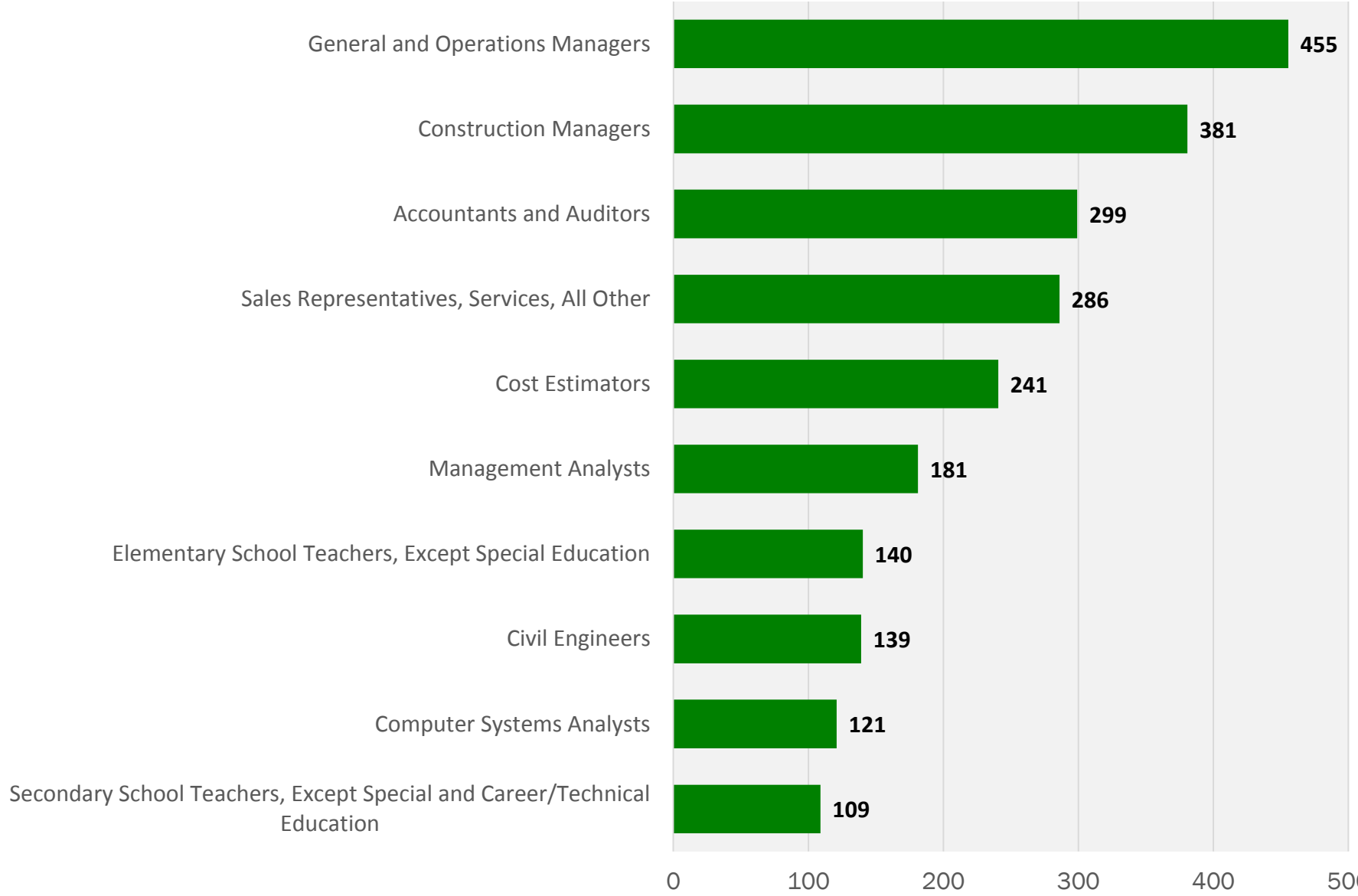
Sources: REMI PI+, RESI

Top Ten Job Zone 4 Occupations

Maryland, Average Annual Growth (2017–2019)



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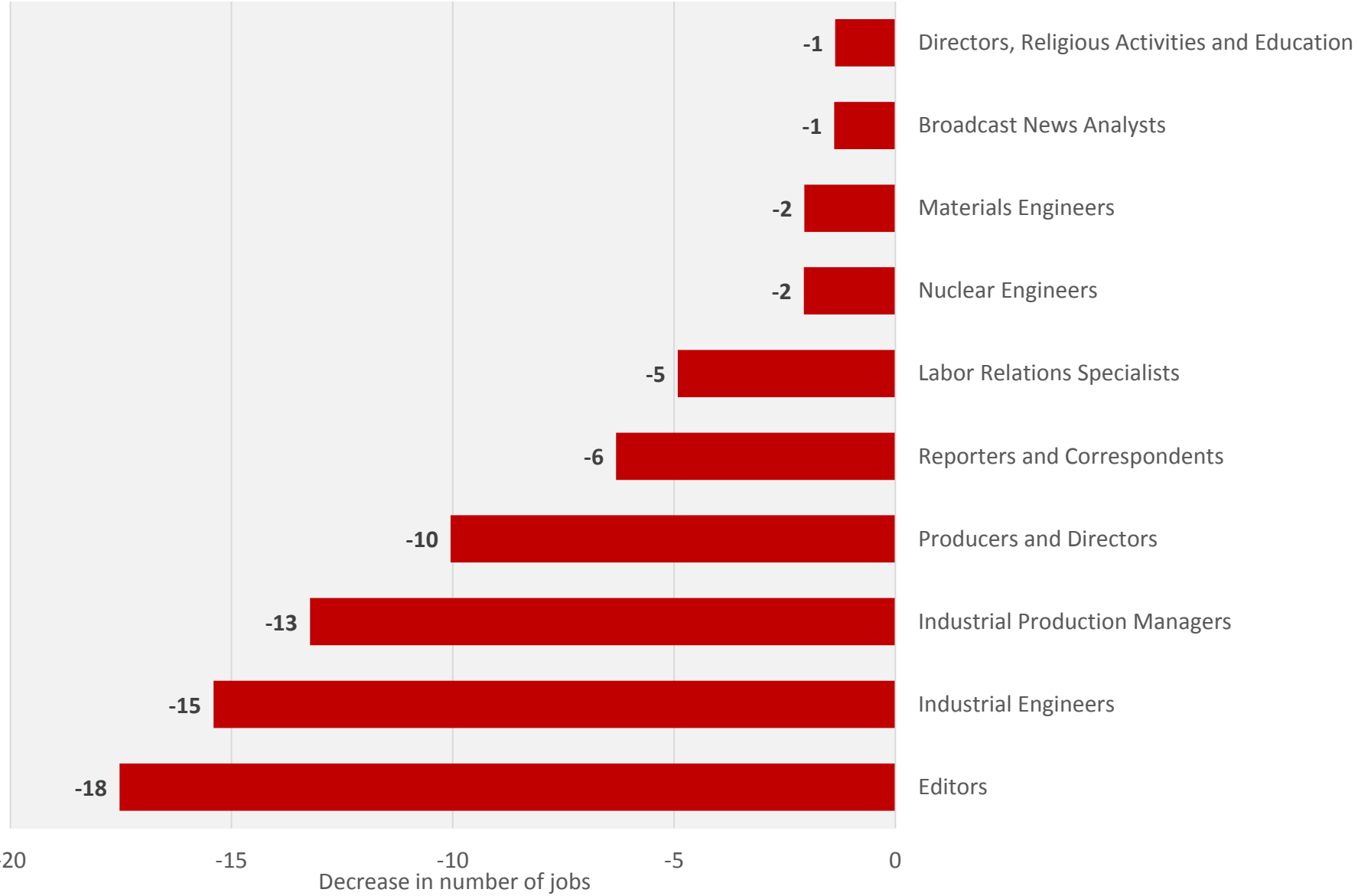
Sources: REMI PI+, RESI

Bottom Ten Job Zone 4 Occupations

Maryland, Average Annual Loss (2017–2019)



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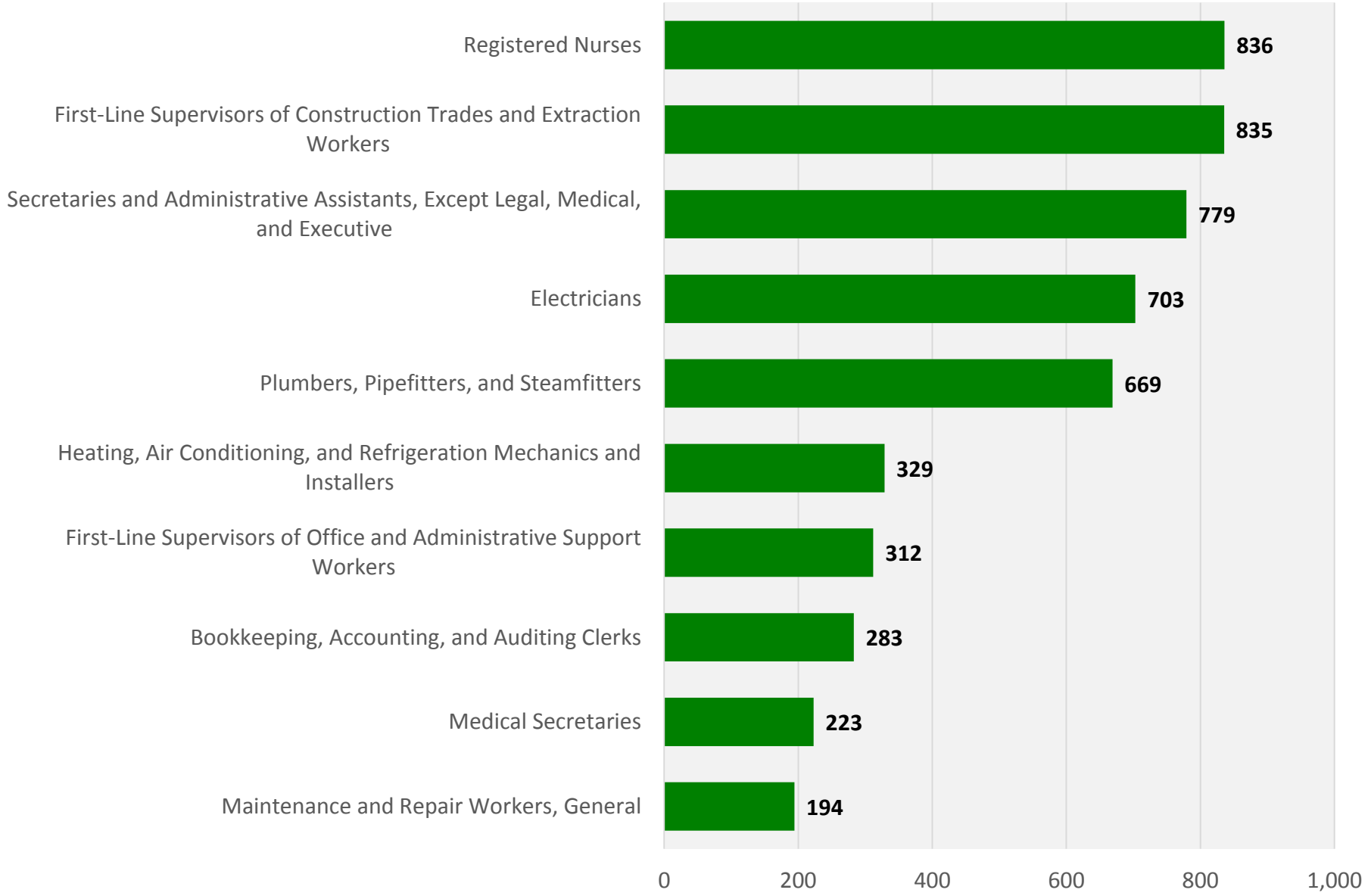
Sources: REMI PI+, RESI

Top Ten Job Zone 3 Occupations

Maryland, Average Annual Growth (2017–2019)



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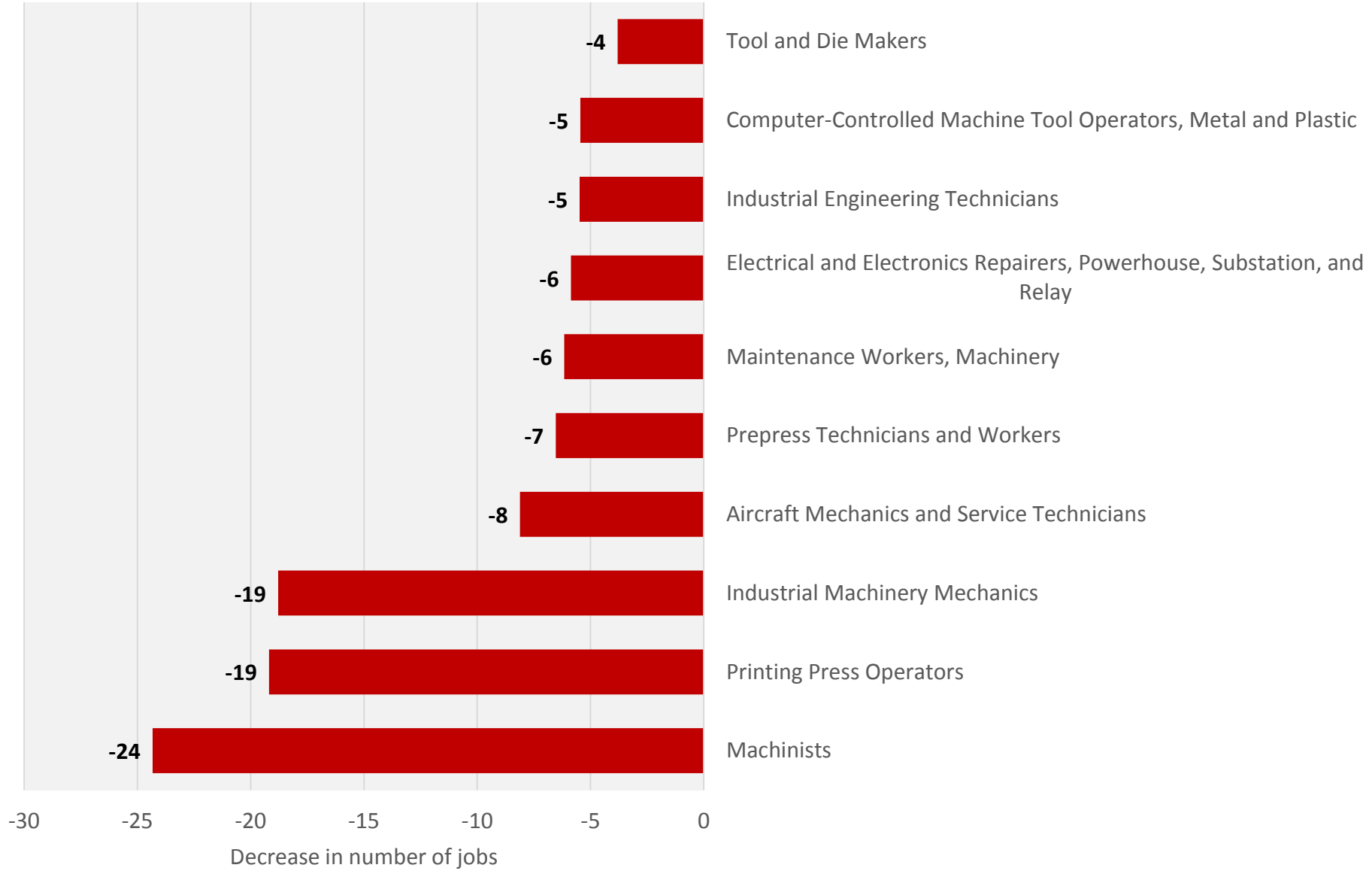
Sources: REMI PI+, RESI

Bottom Ten Job Zone 3 Occupations

Maryland, Average Annual Loss (2017–2019)



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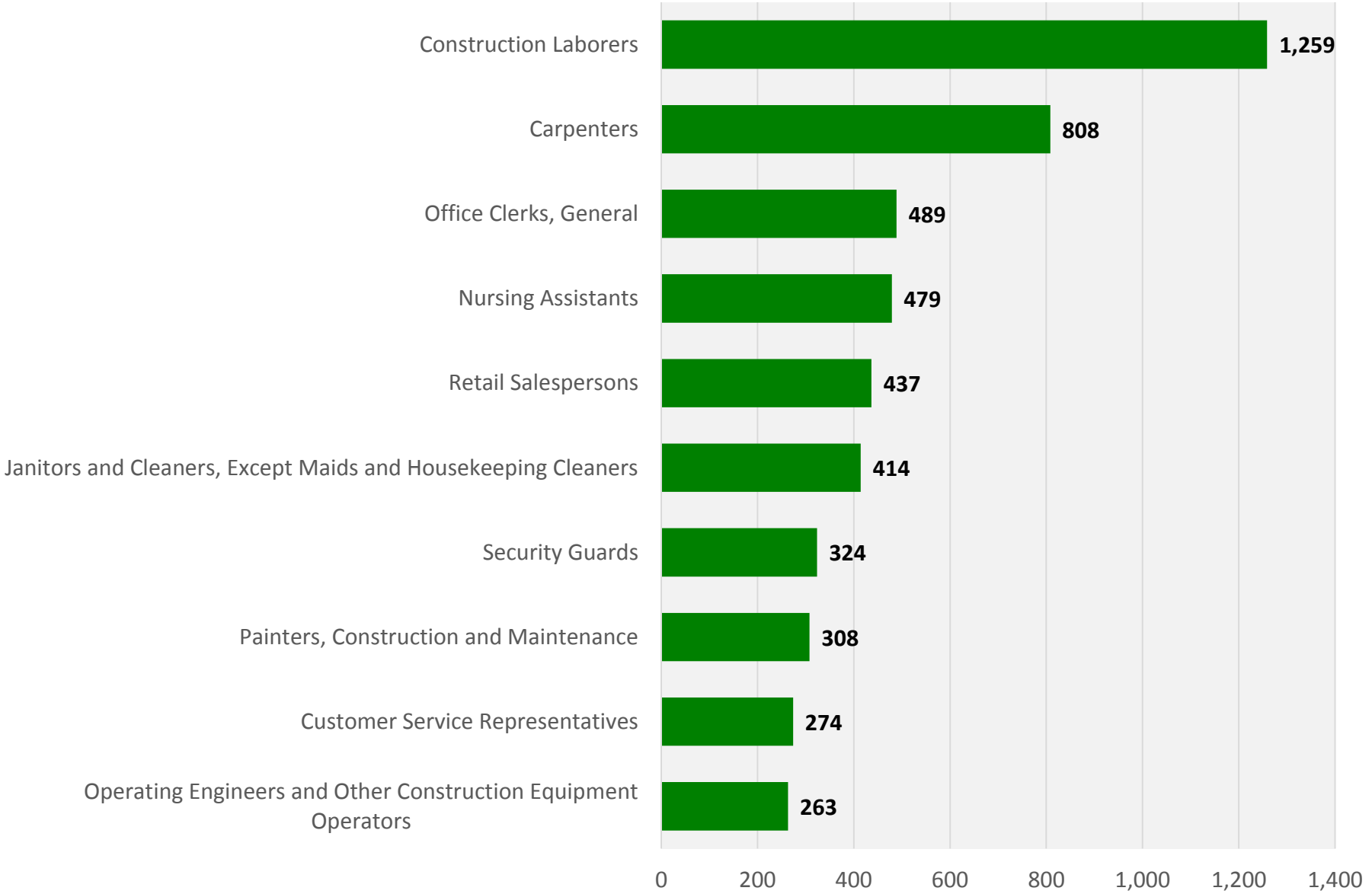
Sources: REMI PI+, RESI

Top Ten Job Zone 2 Occupations

Maryland, Average Annual Growth (2017–2019)



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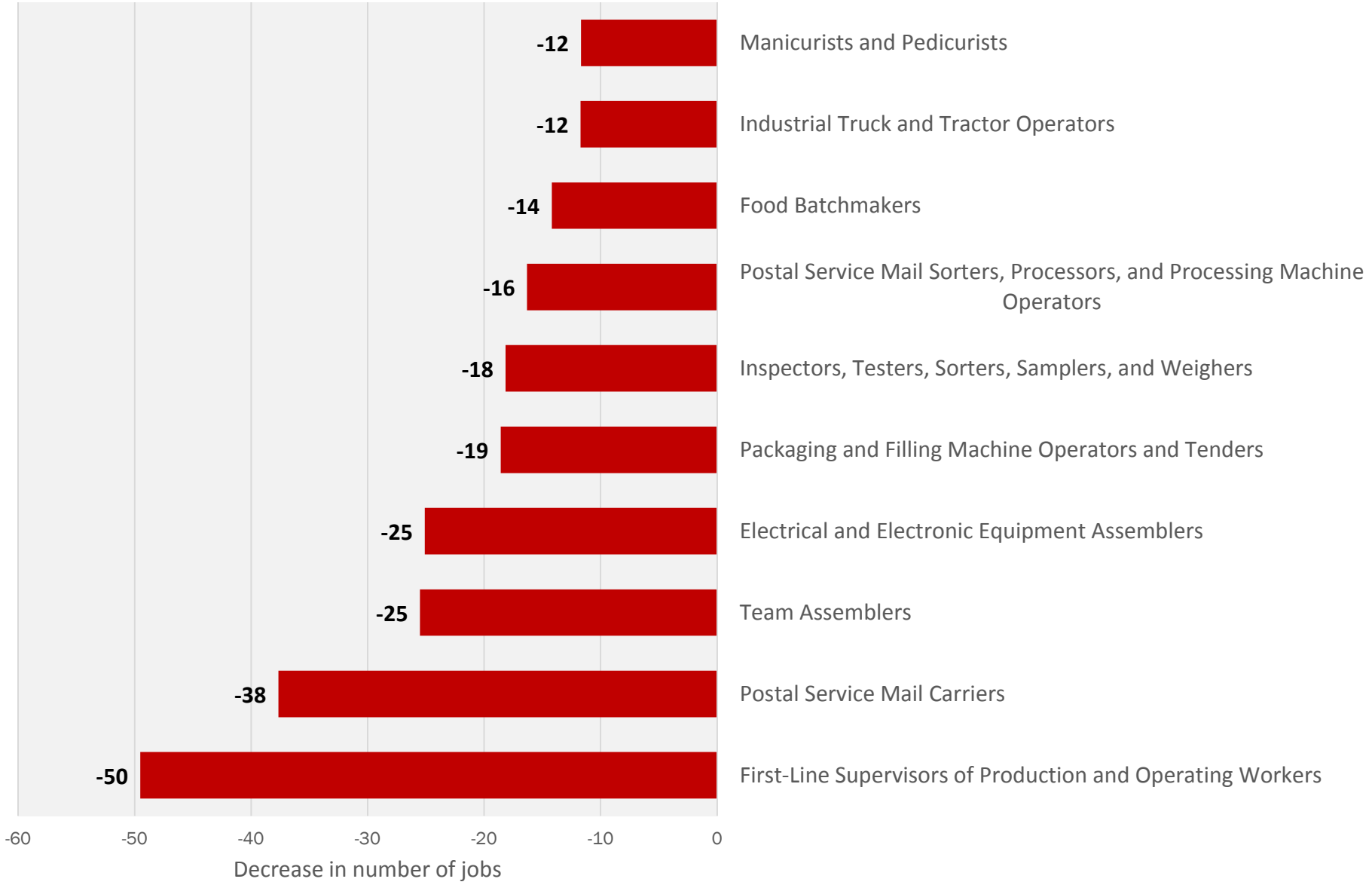
Sources: REMI PI+, RESI

Bottom Ten Job Zone 2 Occupations

Maryland, Average Annual Loss (2017–2019)



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Sources: REMI PI+, RESI

Top Ten Job Zone 1 Occupations

Maryland, Average Annual Growth (2017–2019)

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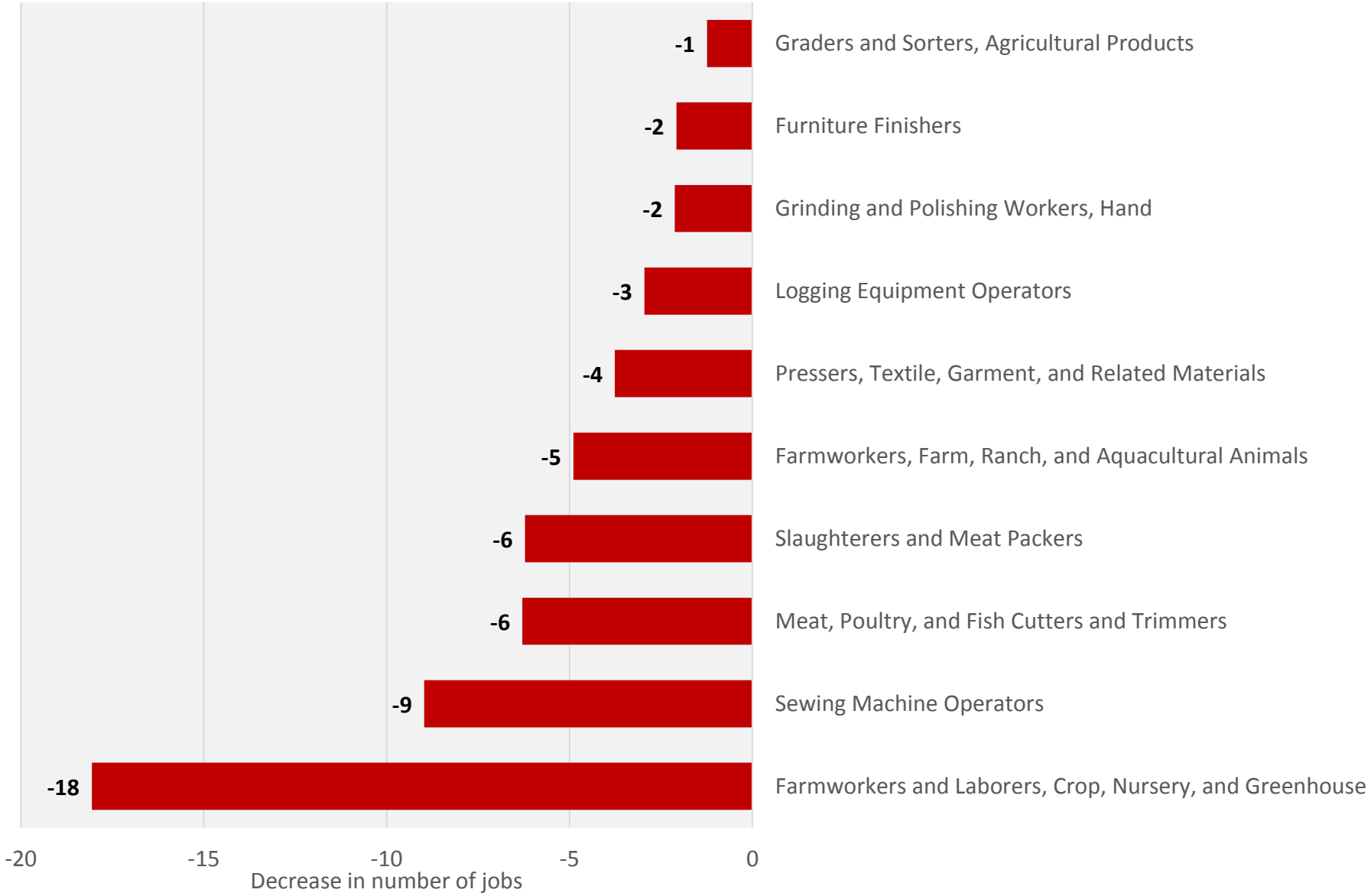
Sources: REMI PI+, RESI

Bottom Ten Job Zone 1 Occupations

Maryland, Average Annual Loss (2017–2019)



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