

Employment Outlook: 2014-24

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Branch Chief

Division of Occupational Employment Projections

ASCA Annual Conference

July 10th, 2016



Overview

- Background information
- Population and labor force
- Economic growth
- Industry employment
- Occupational employment
- Resources for additional information



Employment Projections Background

- 10-year projections made every 2 years
- 2014-24 projections cover over 800 occupations and 300 industries
- BLS projections prepared at the national level only
 - ▶ BLS projections serve as an input for state and local employment projections

Projections Uses

- Career counselors and students making career choice decisions
- Jobseekers looking to find work or switch occupations
- Education and training officials making decisions on policy, funding, and program offerings based on demand for occupations
- Researchers interested in how the economy is changing

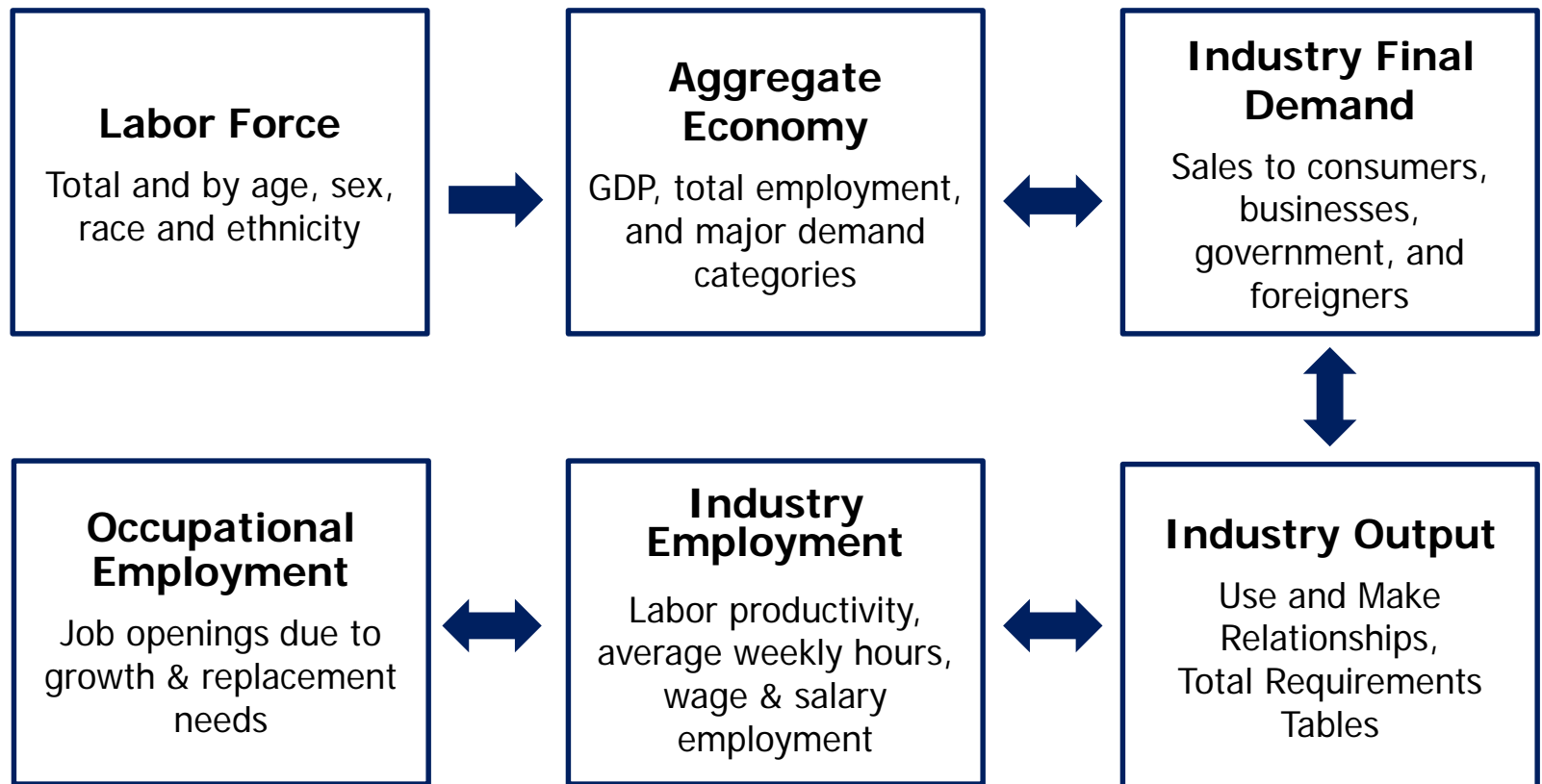


Employment Projections Products

- *Occupational Outlook Handbook*
- *Career Outlook*
- Long-term employment projections by industry and occupation
- Technical materials—replacement rates, education and training categories, and more



Employment Projections Process



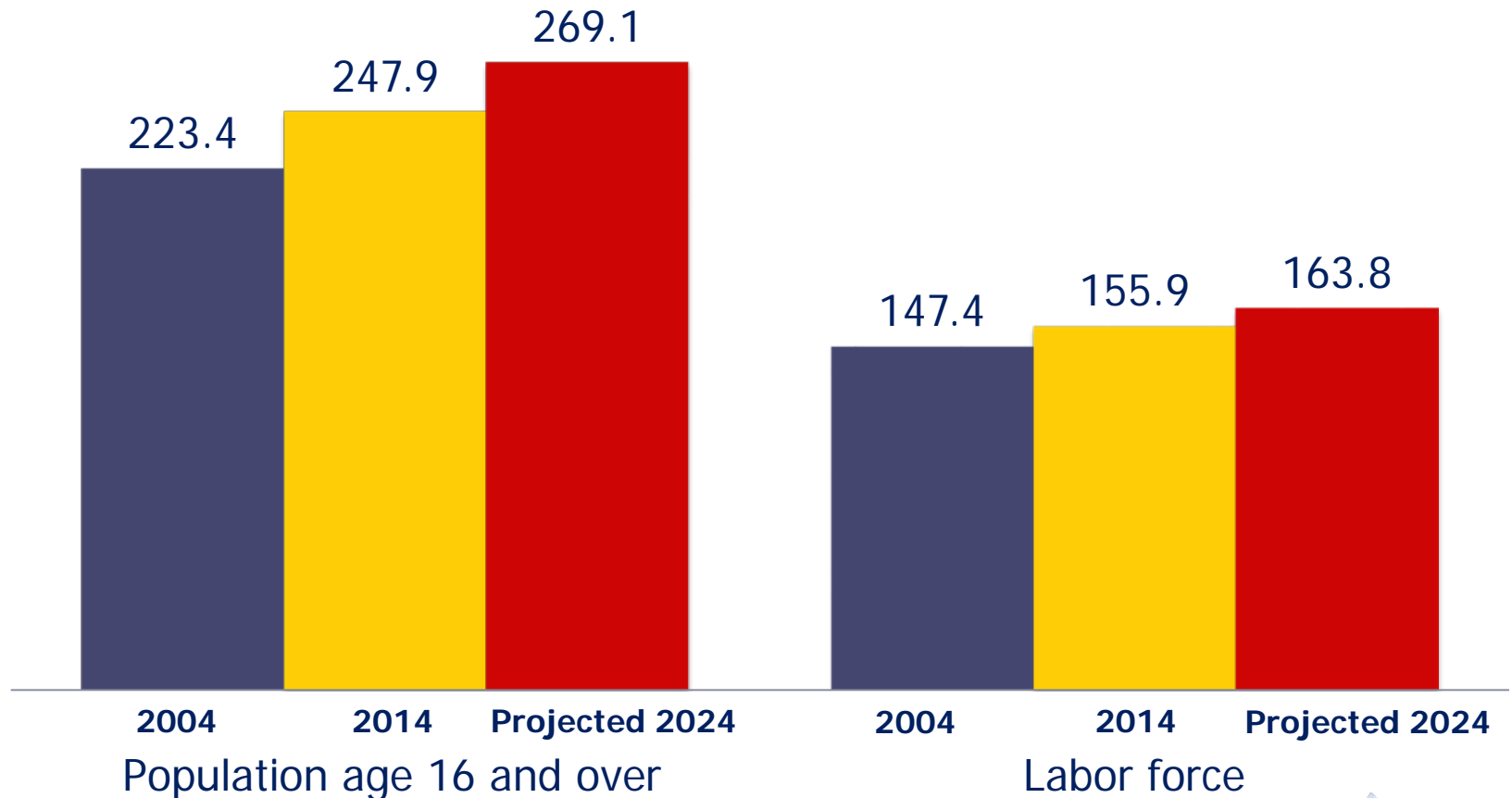
Employment Outlook: 2014-24

Population and Labor Force Growth



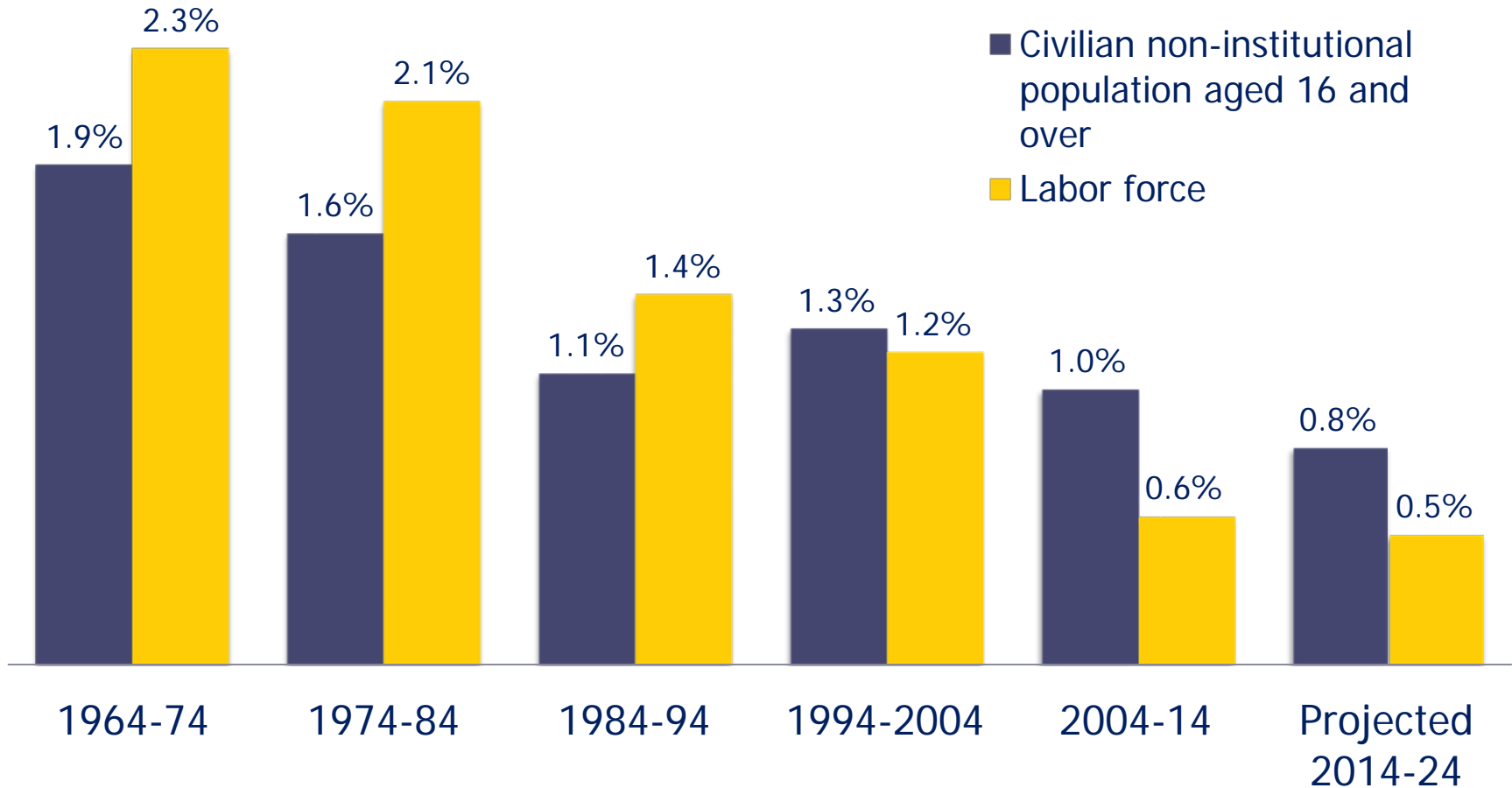
Population and Labor Force are Constraints on Employment

Millions of persons



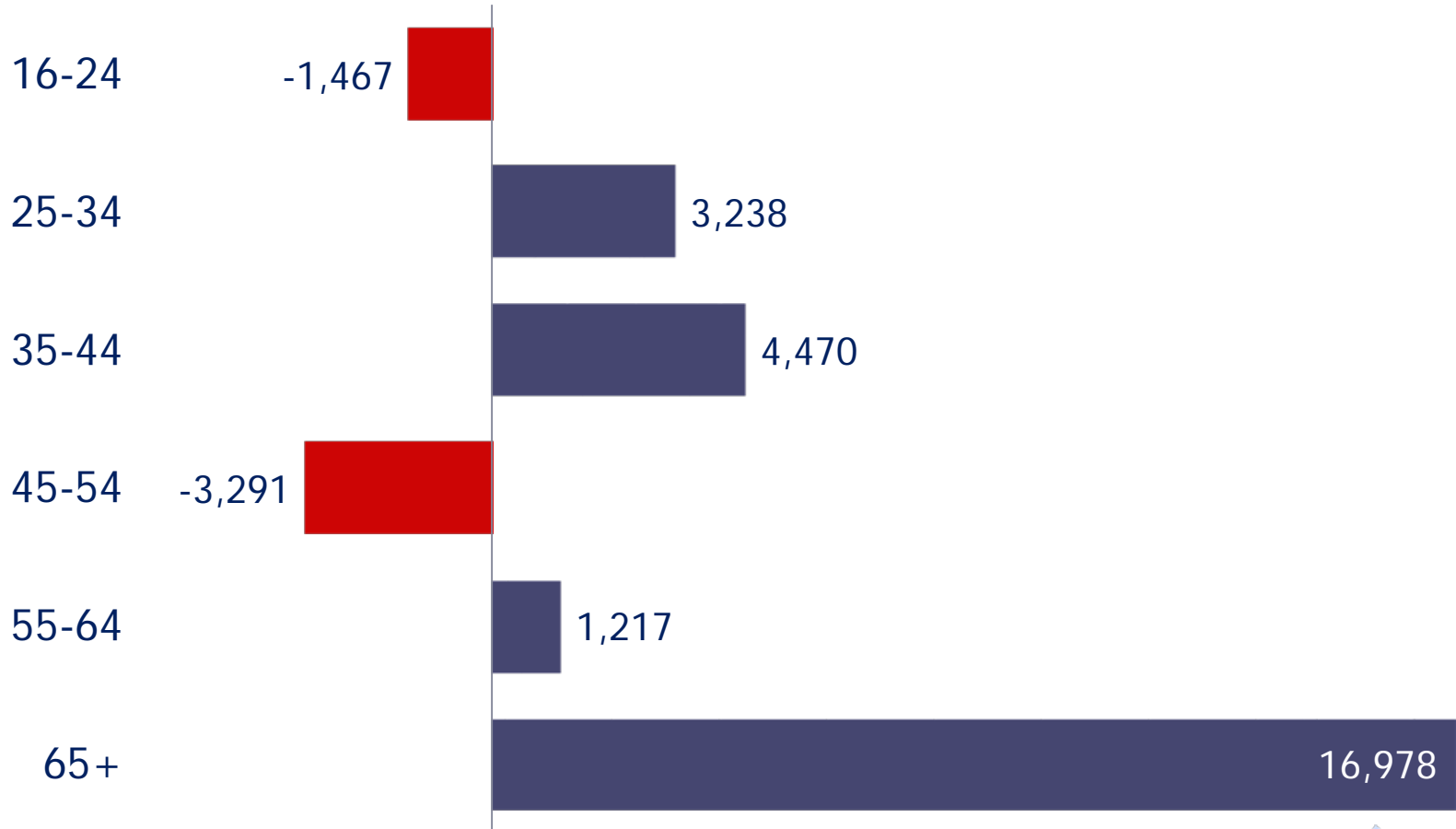
Population and Labor Force Growth Slows

Annual rates of change



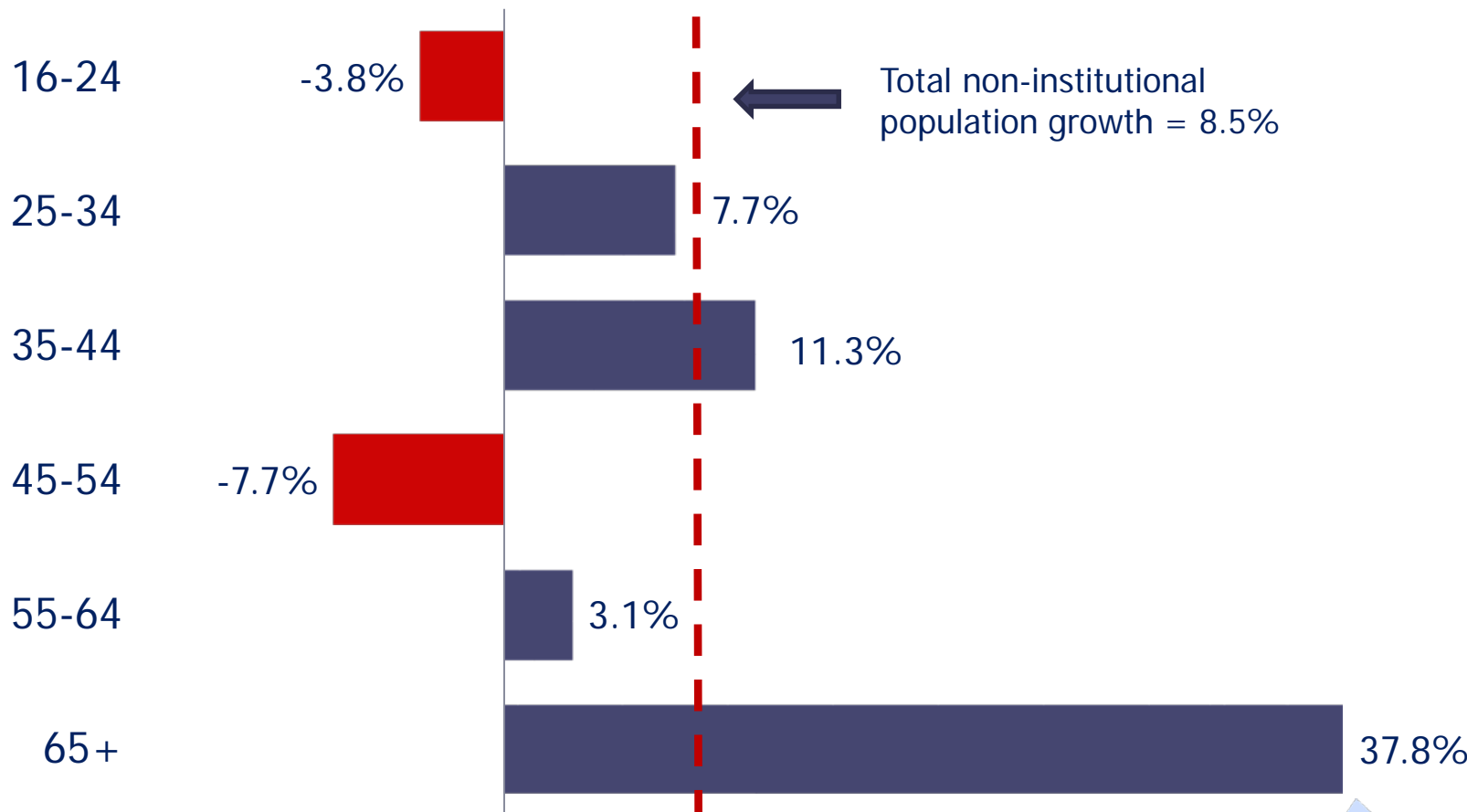
Baby Boomers Enter 65+ Age Group

Thousands of people, non-institutional population, projected 2014-24

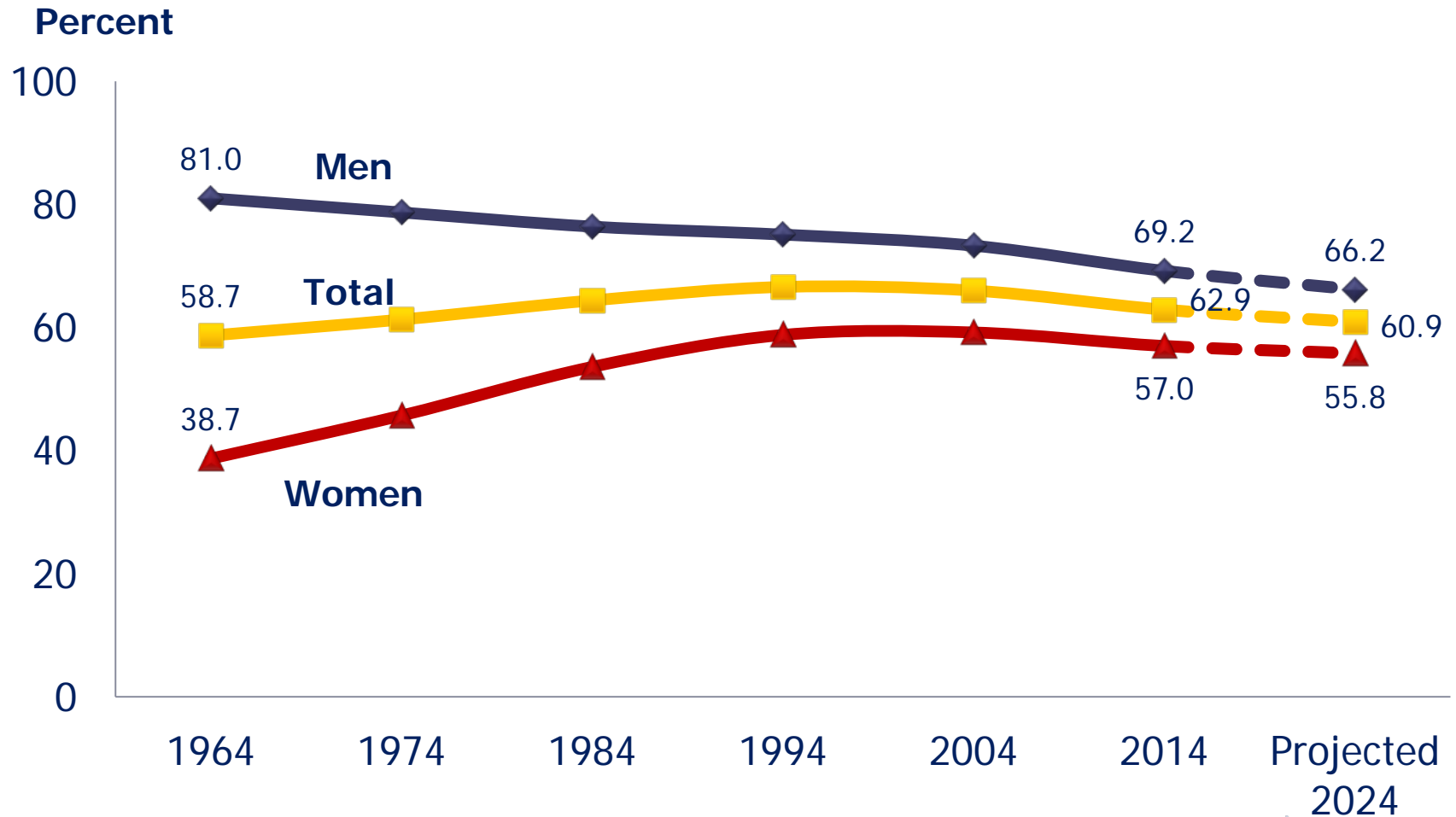


Declines in 45-54 Year Olds As Baby Boomers Exit this Group

Non-institutional population, projected 2014-24

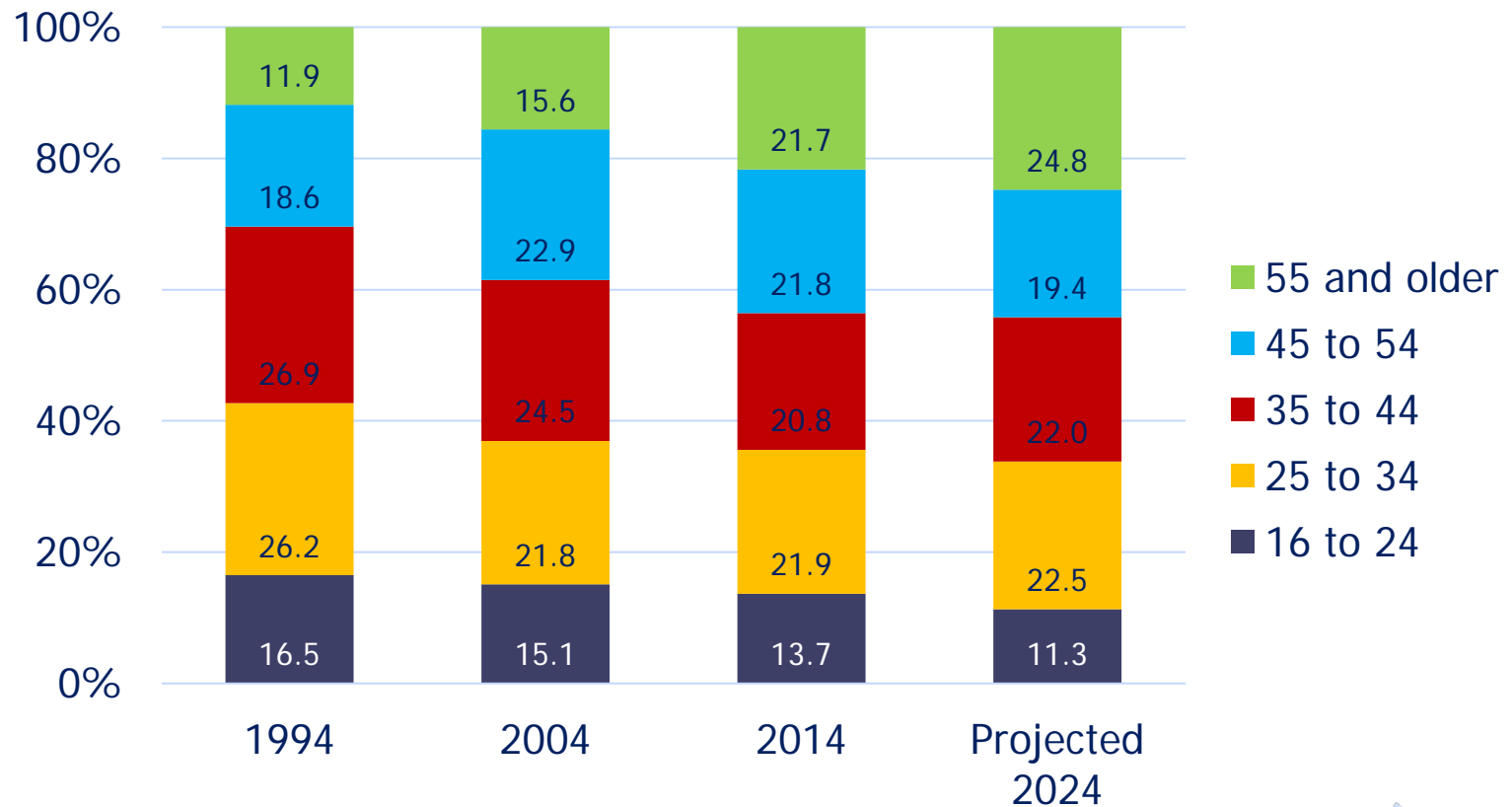


Labor Force Participation Continues to Decline



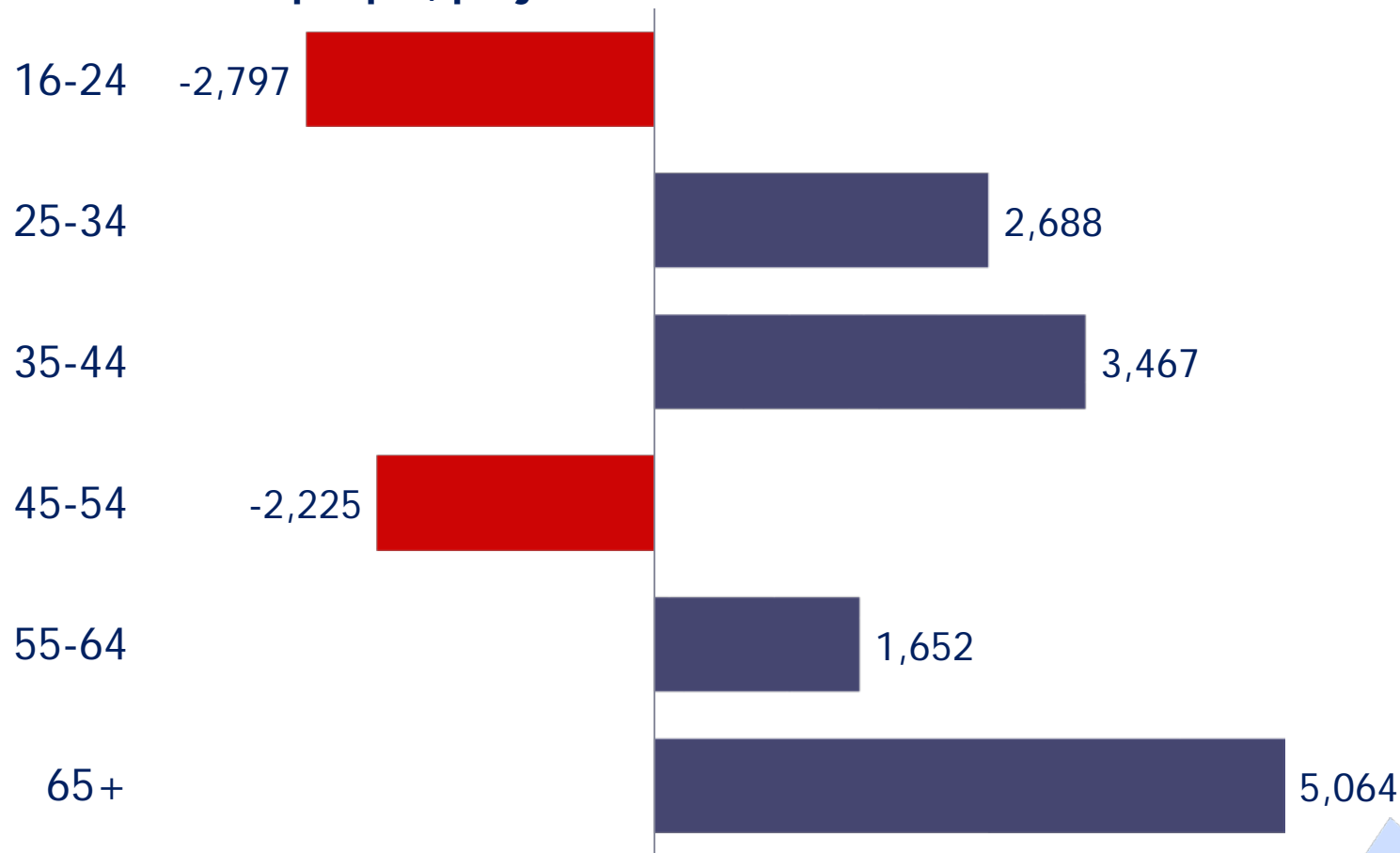
The Labor Force Is Aging

Percent distribution



Decline in Labor Force of Youth and 45-54 Year Olds

Thousands of people, projected 2014-24



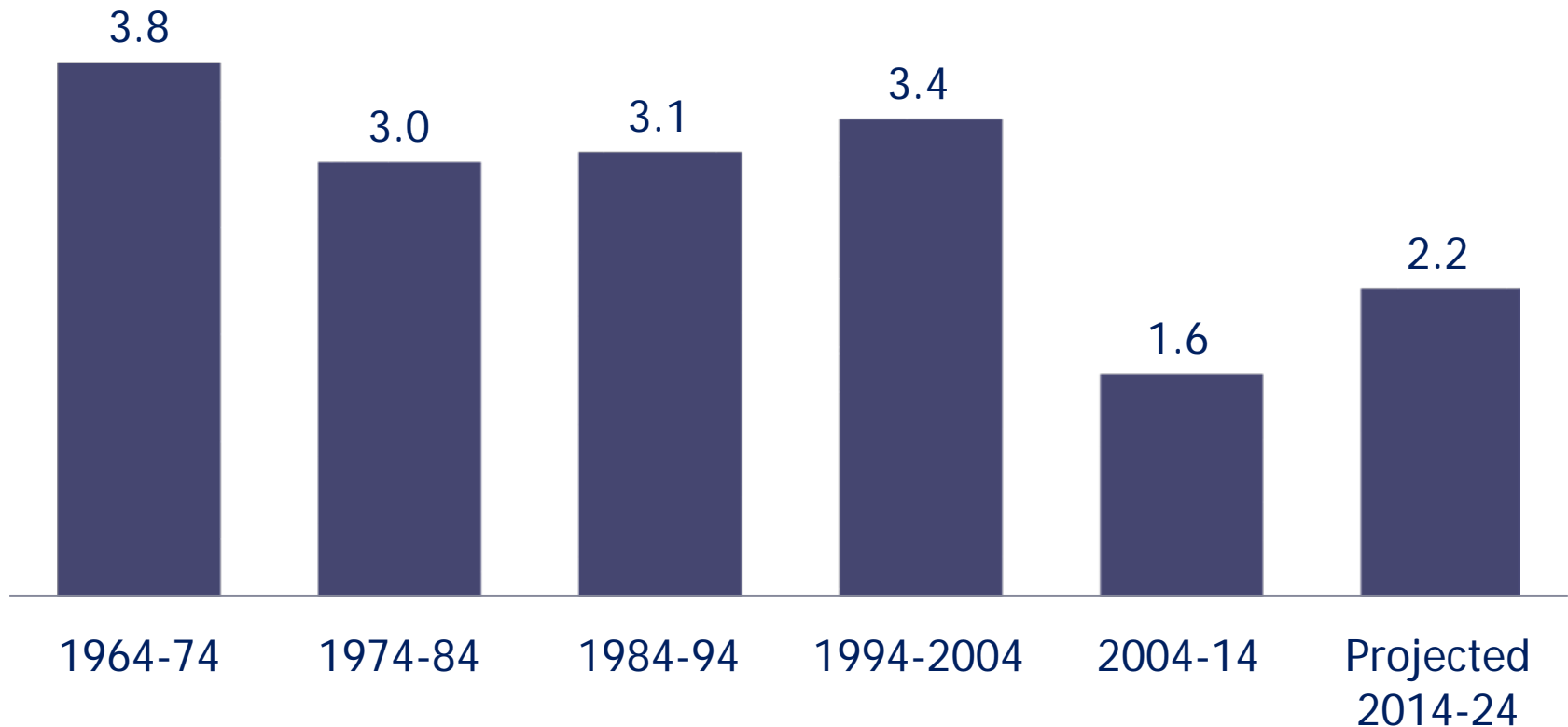
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Economic Growth

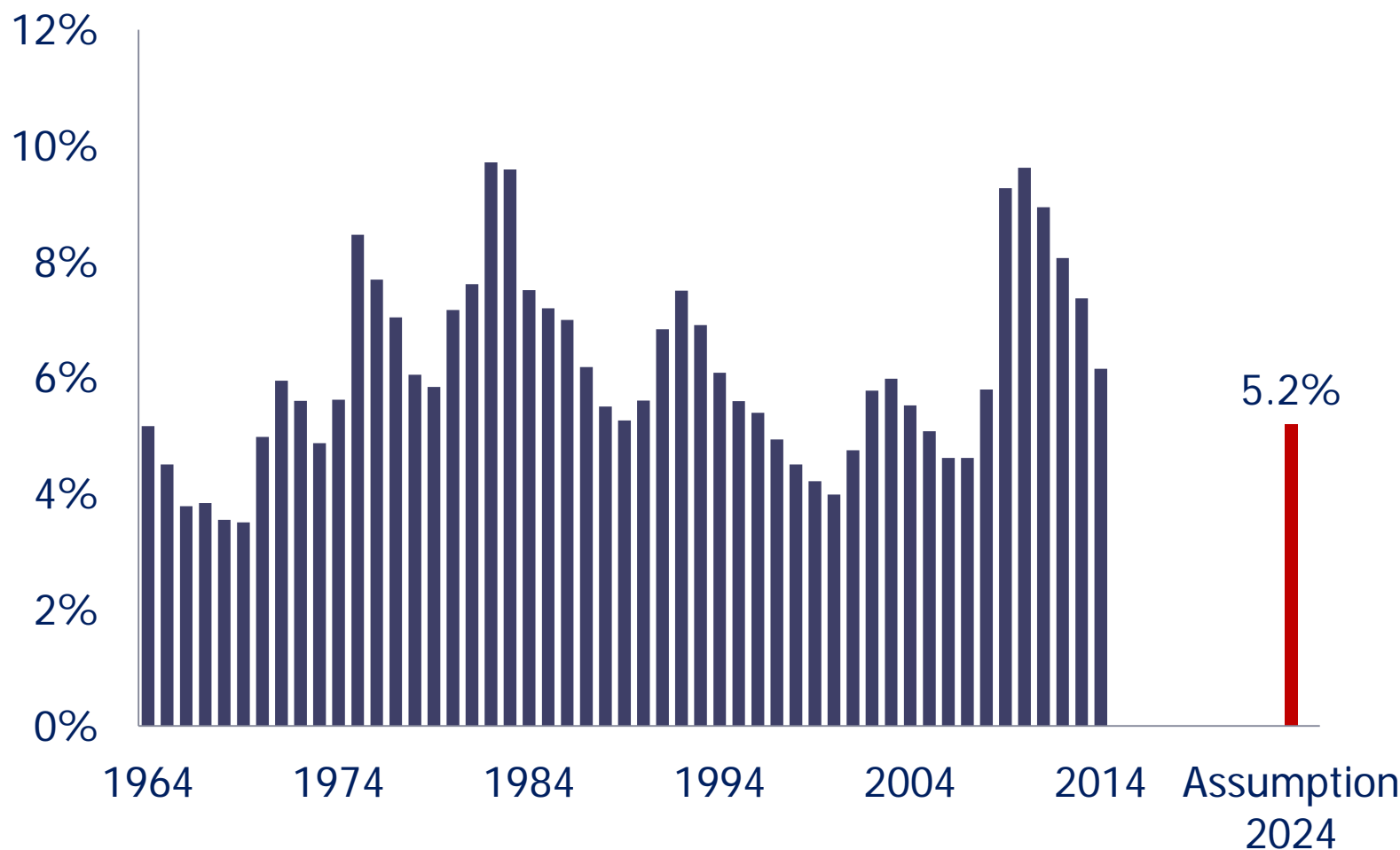


Moderate Growth for Real Gross Domestic Product

Annual rate of change



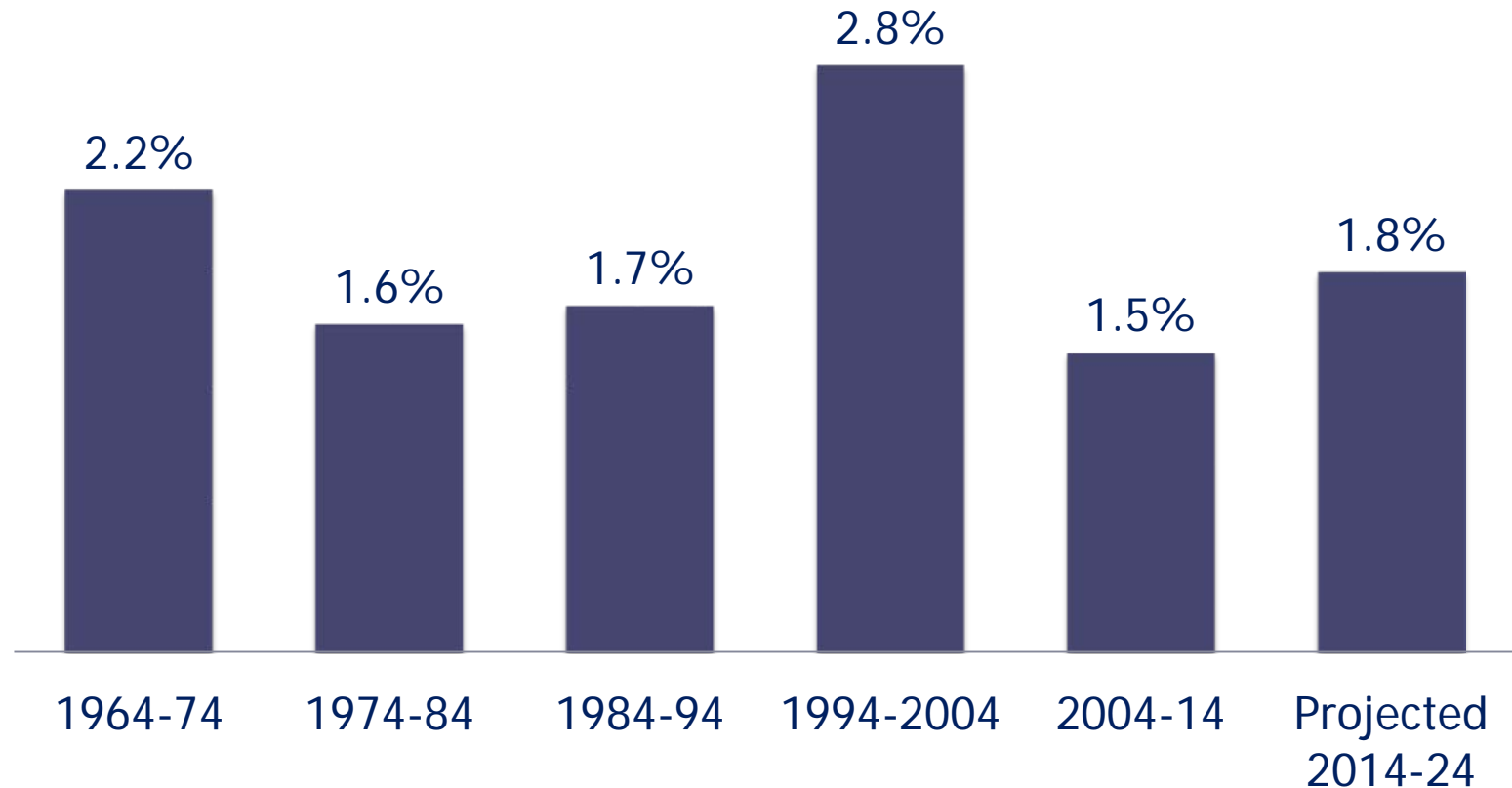
Full Employment Assumed



Moderate Productivity Growth

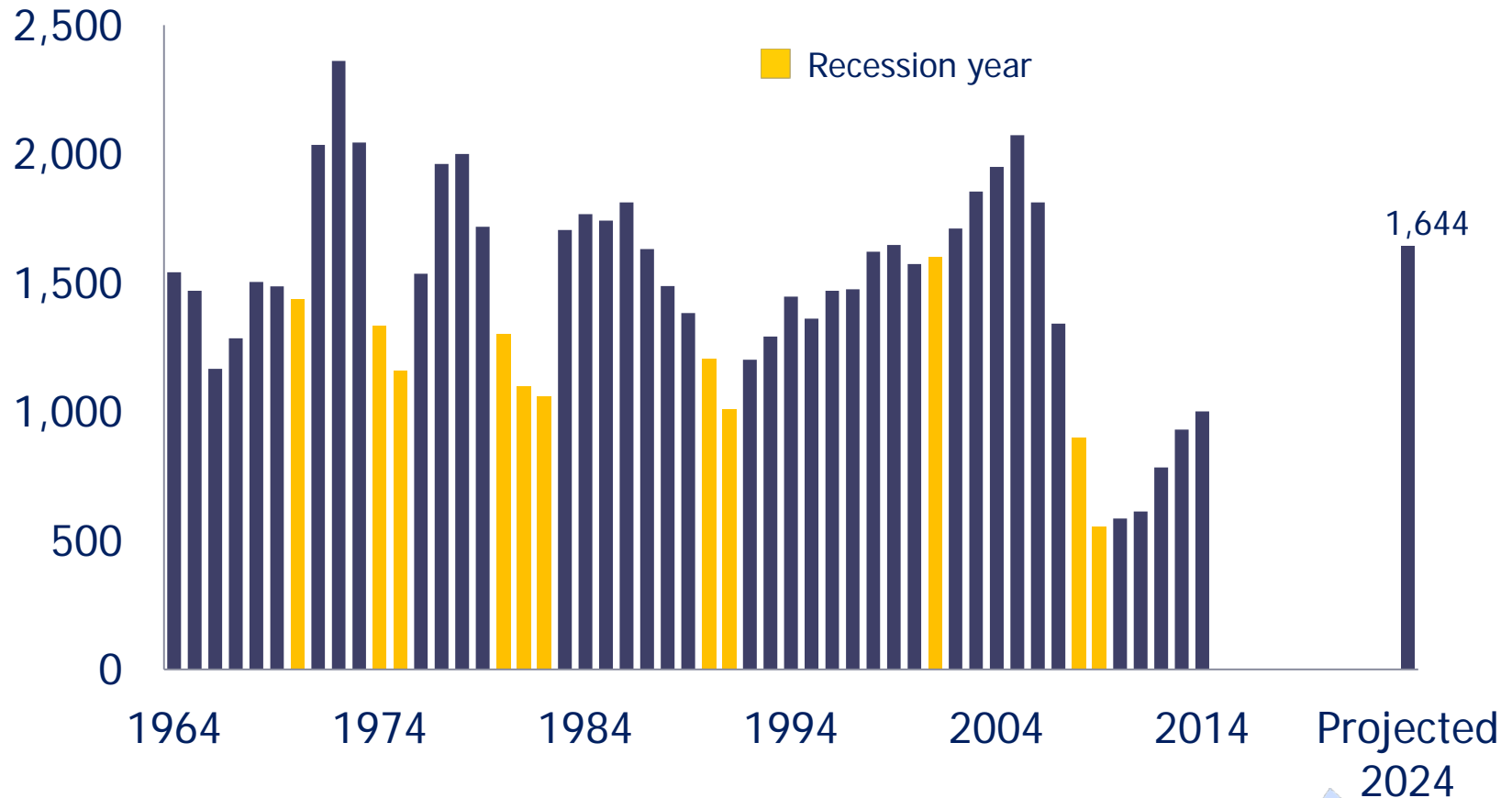
Annual rate of change

Private nonfarm business output per hour



Housing Starts Return to Historical Levels

Thousands of units



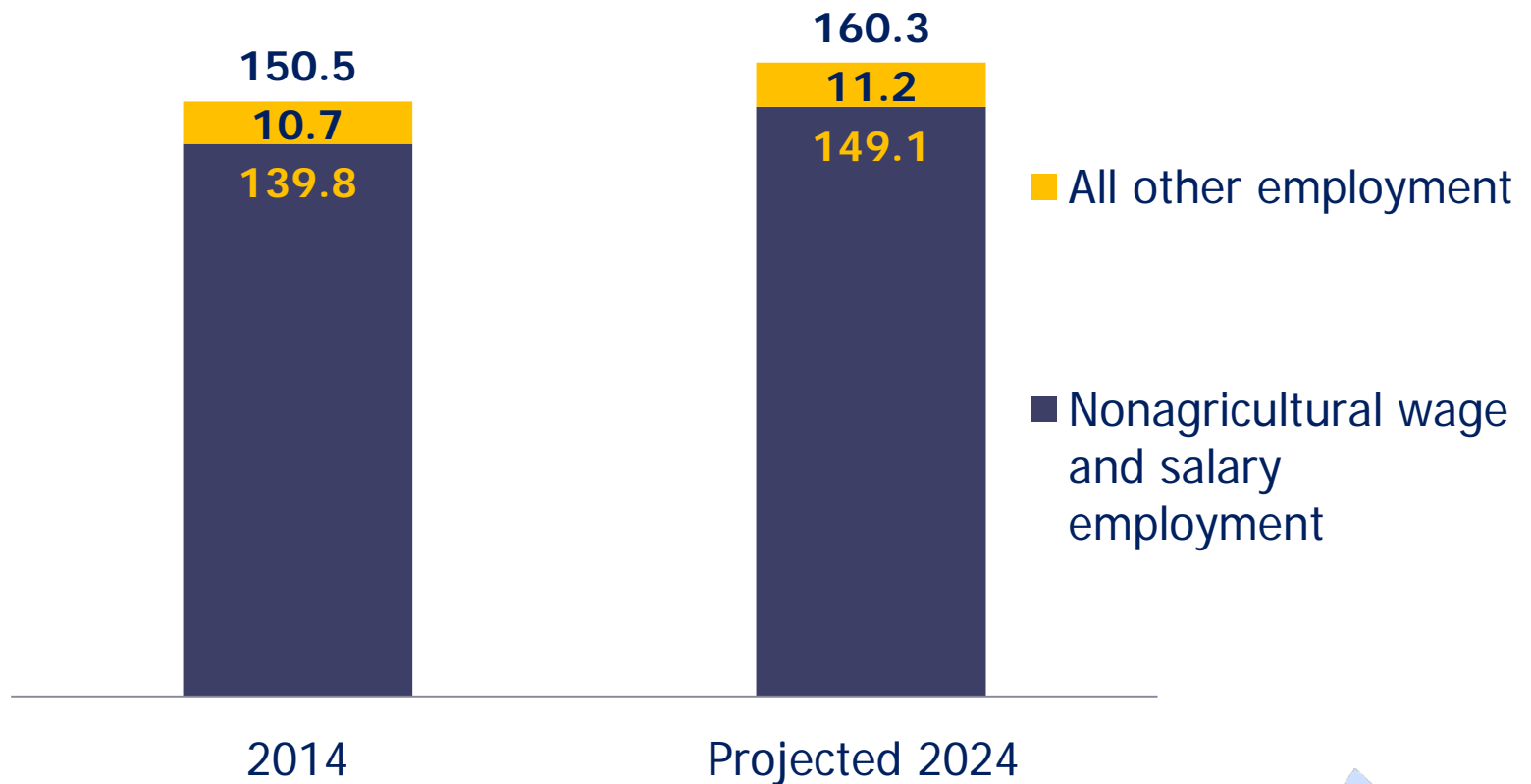
Employment Outlook: 2014-24

Industry Employment



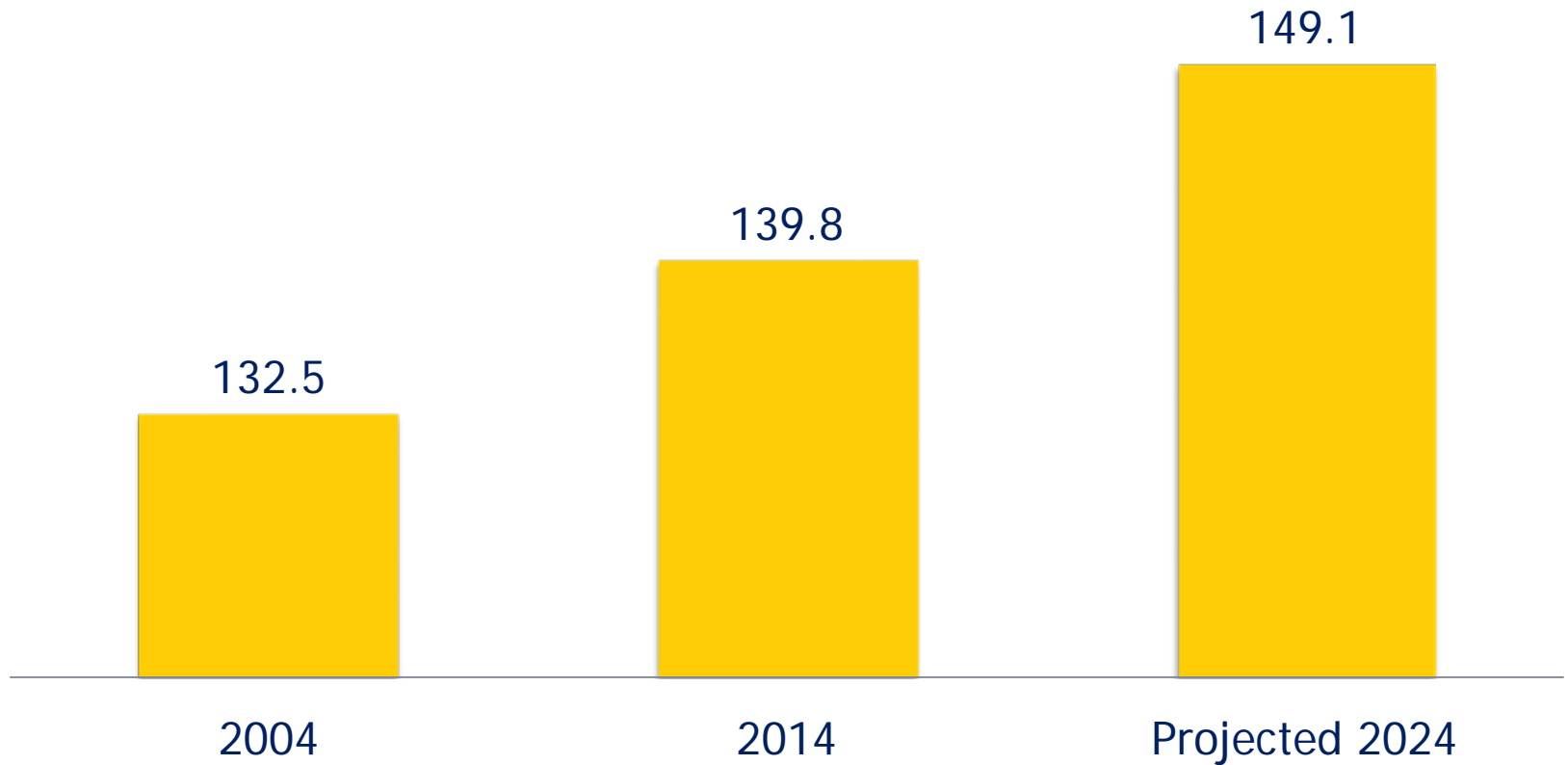
Employment Grows by 9.8 Million Jobs

Millions of jobs



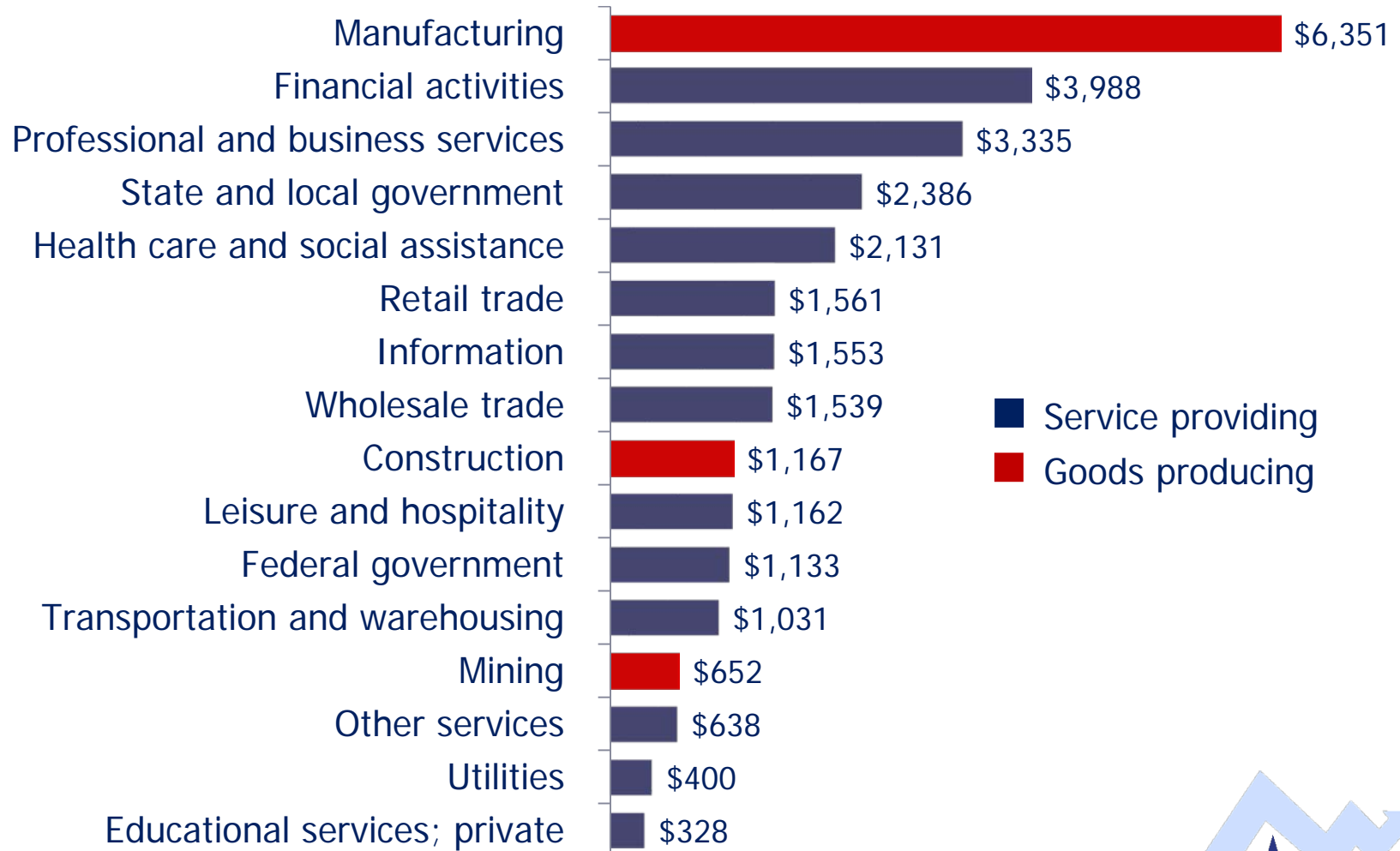
Employment Growth is Slightly More than over the Prior Decade

Millions of jobs, nonagricultural wage and salary



Manufacturing Has Largest Nominal Output

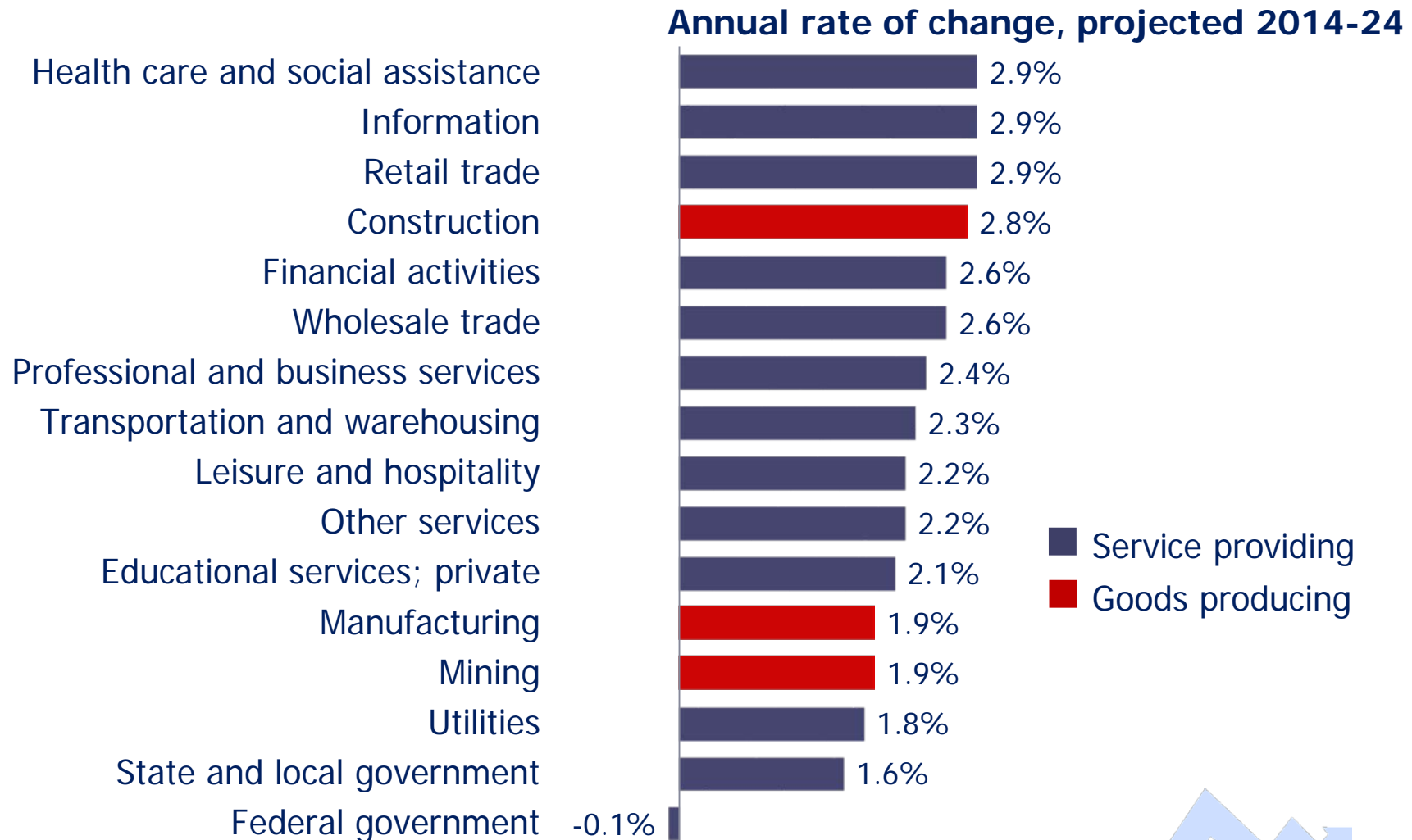
Billions of dollars, 2014



Service-Providing Industries Have Most Employment

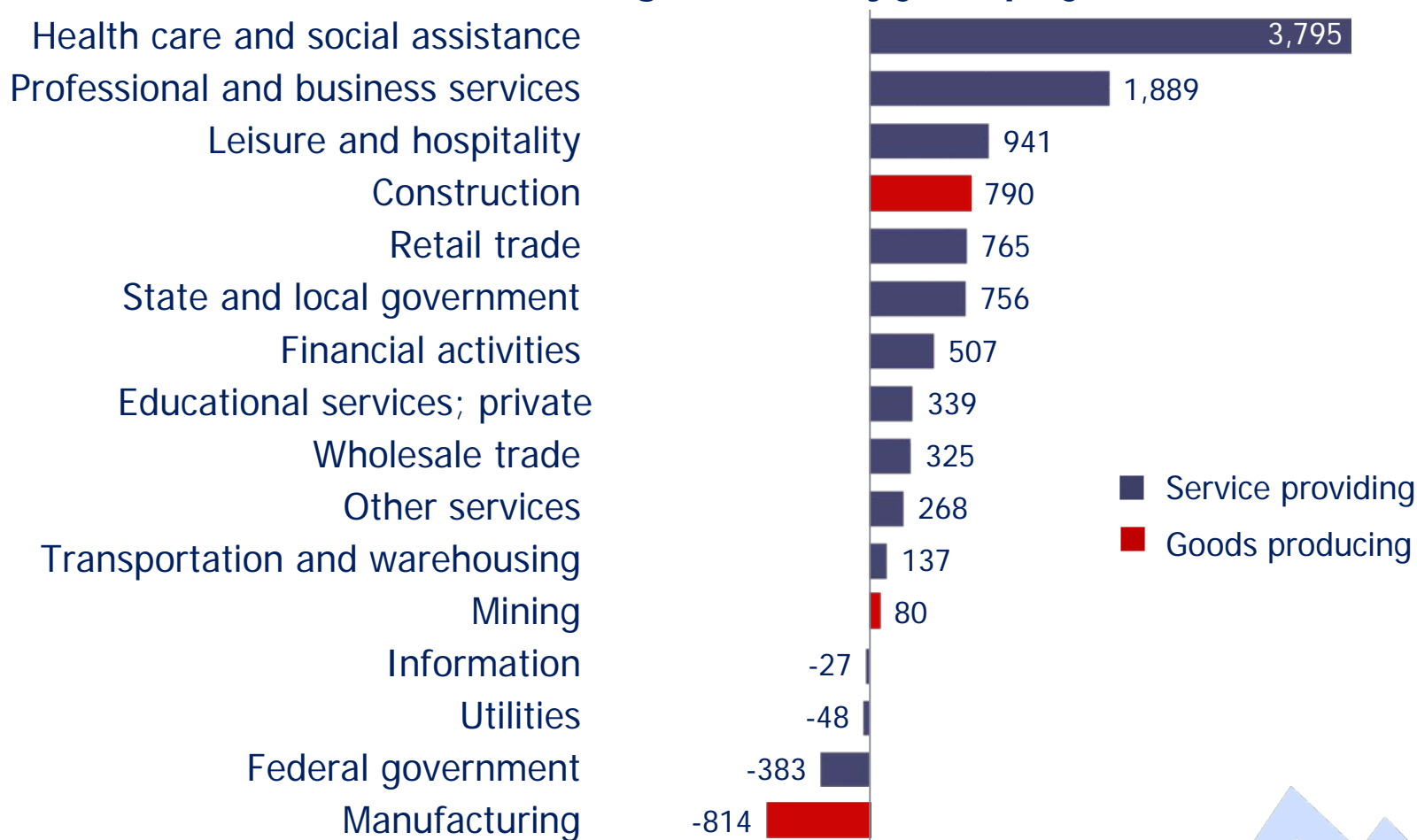


Almost All Industries Have Projected Real Output Growth



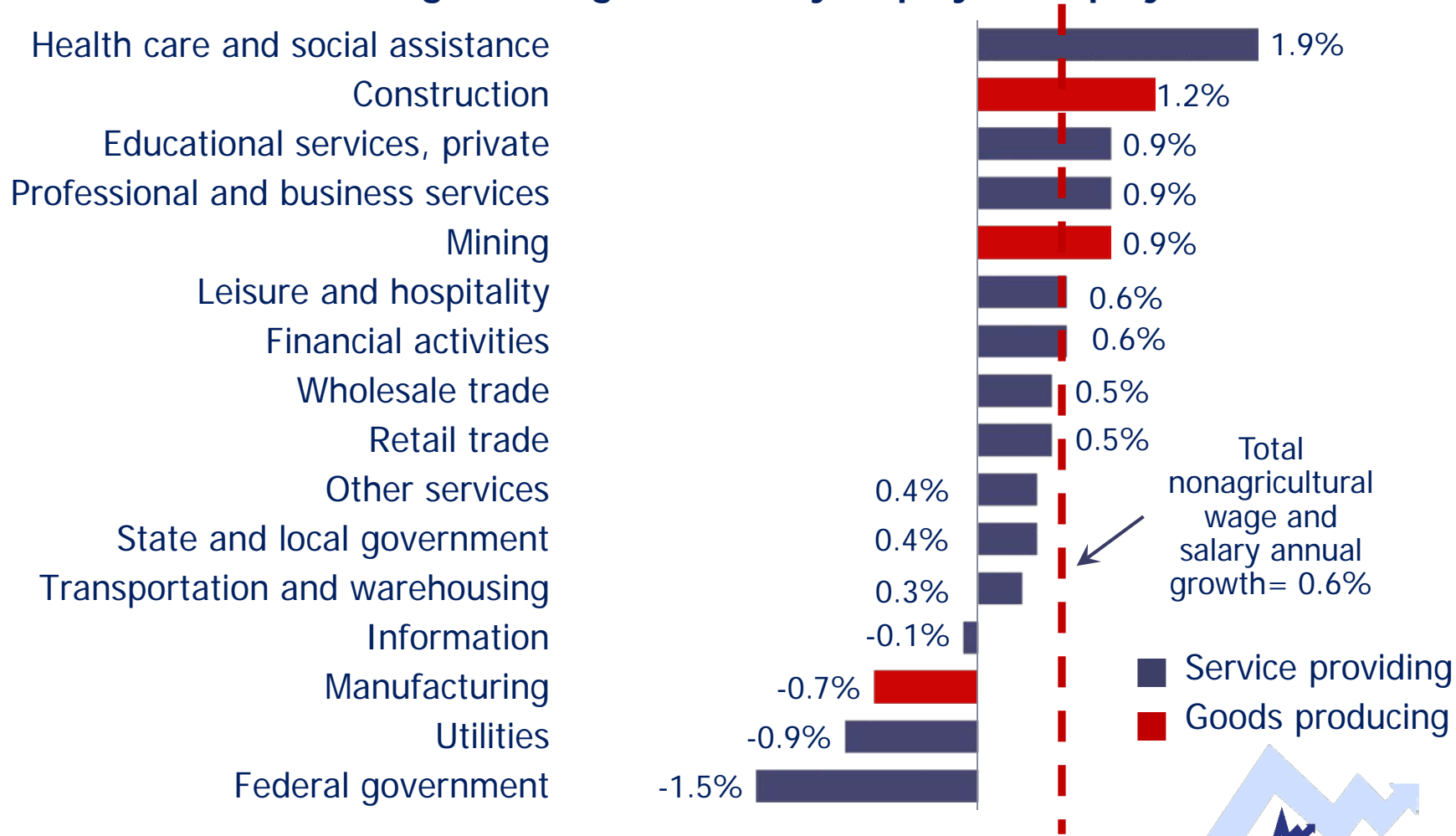
Health Care and Social Assistance Provides Greatest Number of New Jobs

Thousands of wage and salary jobs, projected 2014-24

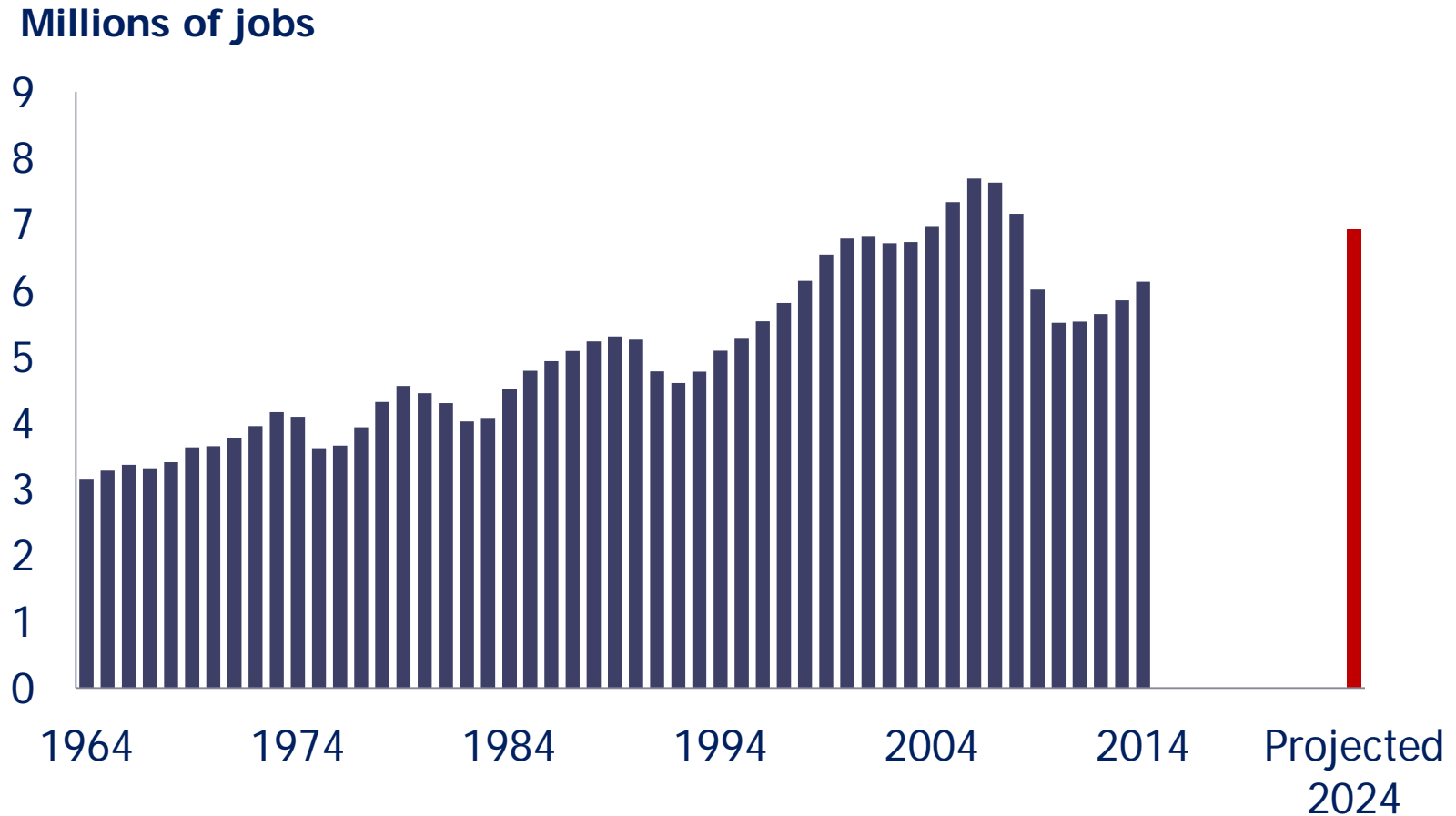


Health Care and Social Assistance is the Fastest Growing Industry

Annual rate of change for wage and salary employment, projected 2014-24

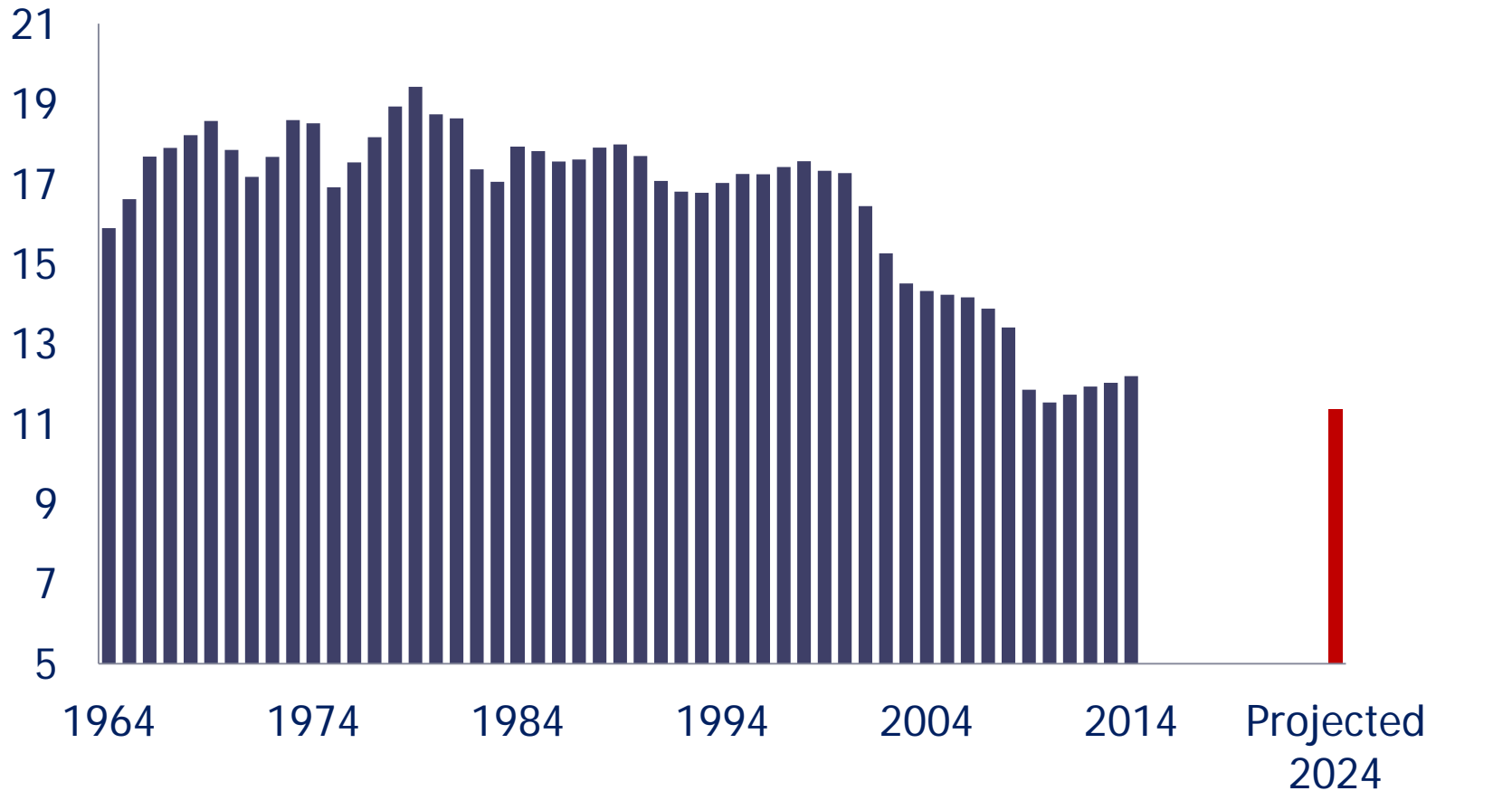


Construction Remains Below Pre-Recession Levels



Manufacturing Continues Decline

Millions of jobs



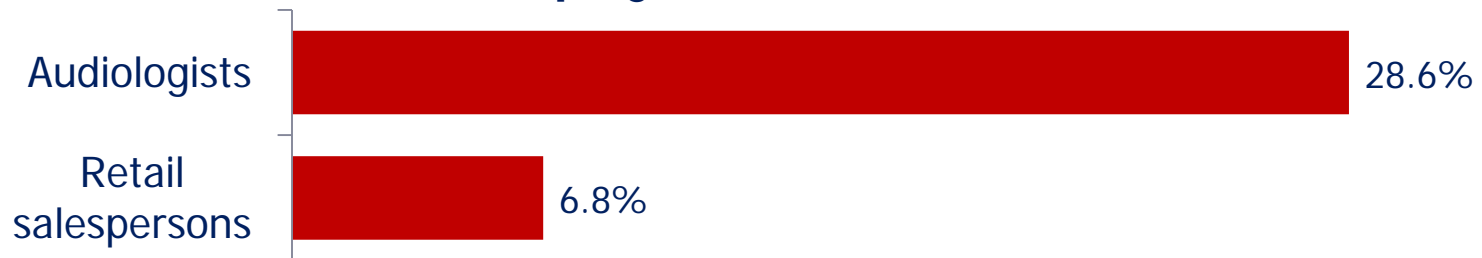
Employment Outlook: 2014-24

Occupational Employment



Percent Change vs. Numeric Change

**Percent employment growth in two occupations,
projected 2014-24**



**Numeric employment growth in two occupations,
projected 2014-24, in thousands**

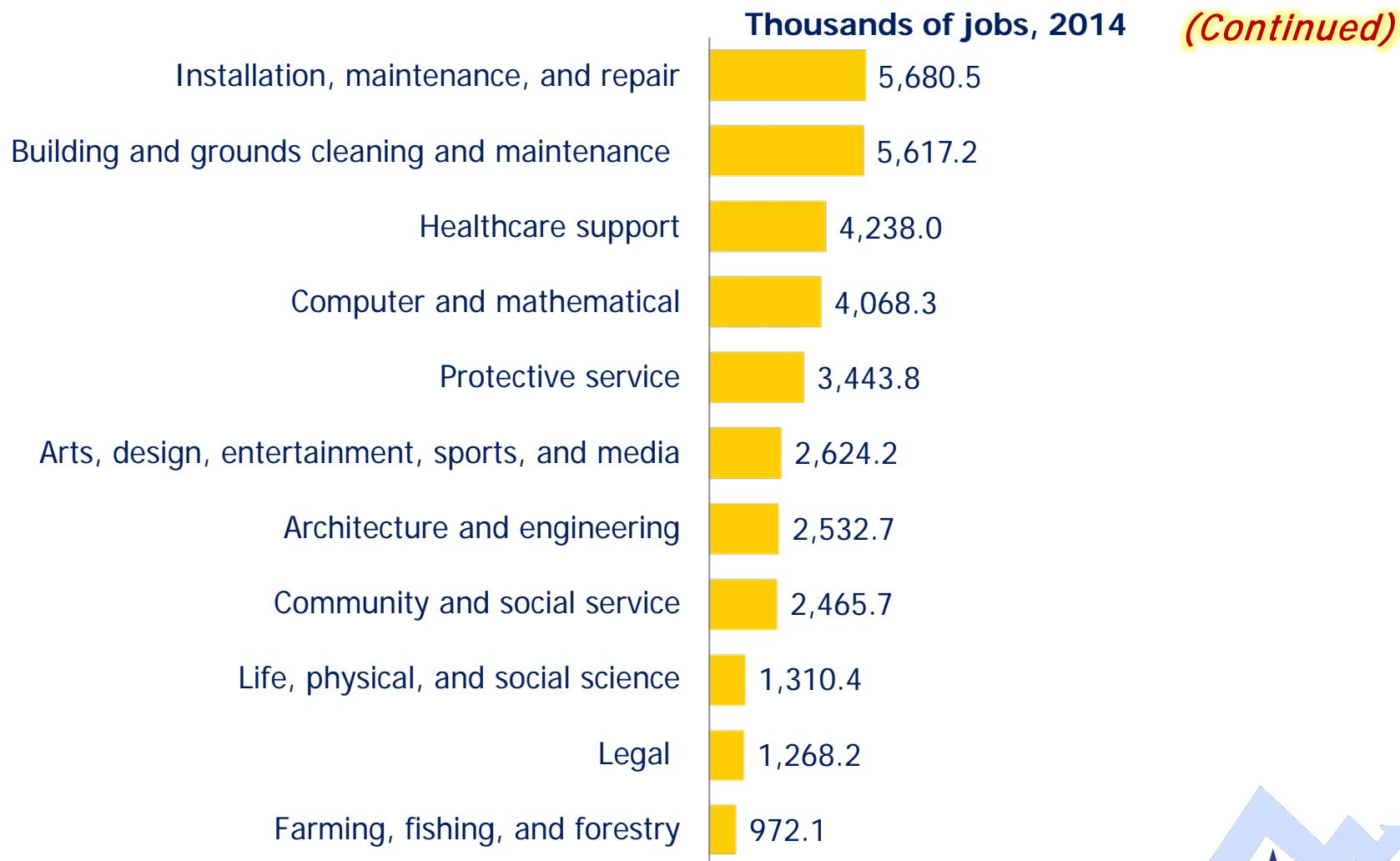


Office and Administrative Support Is the Largest Occupational Group



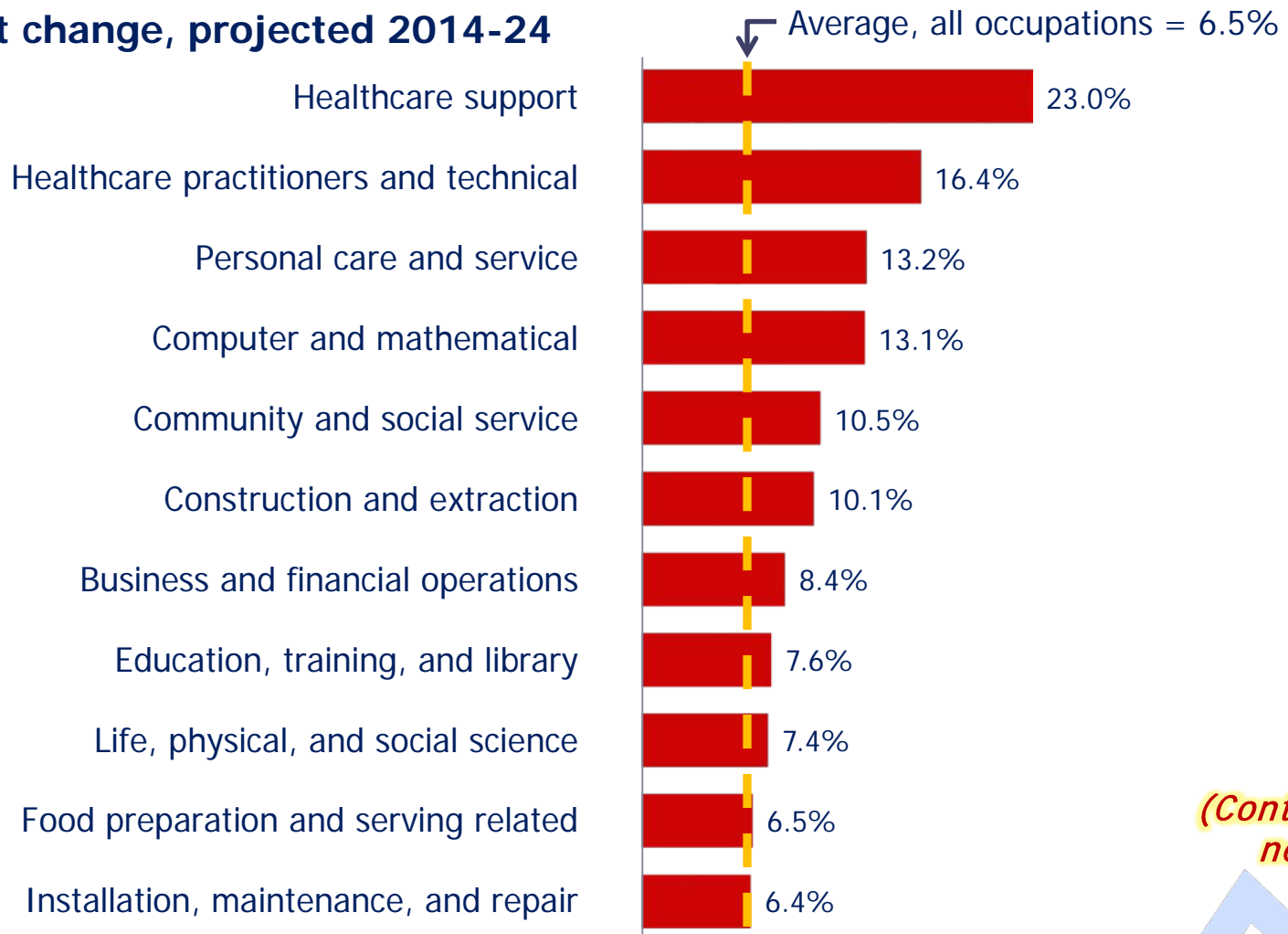
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next slide)*

Farming, Fishing, and Forestry is the Smallest Occupational Group



Healthcare Occupational Groups are Projected to Grow Fastest

Percent change, projected 2014-24

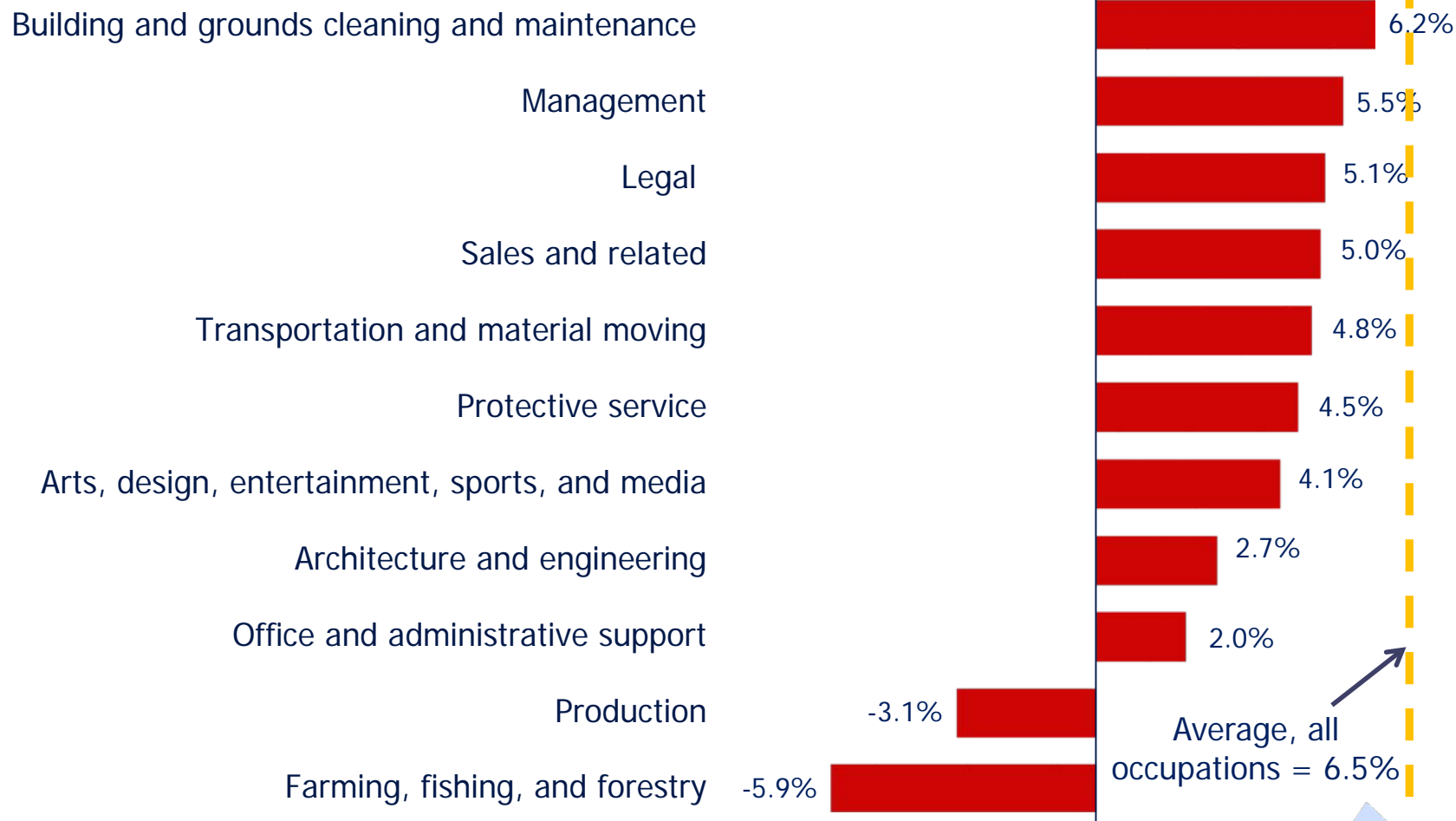


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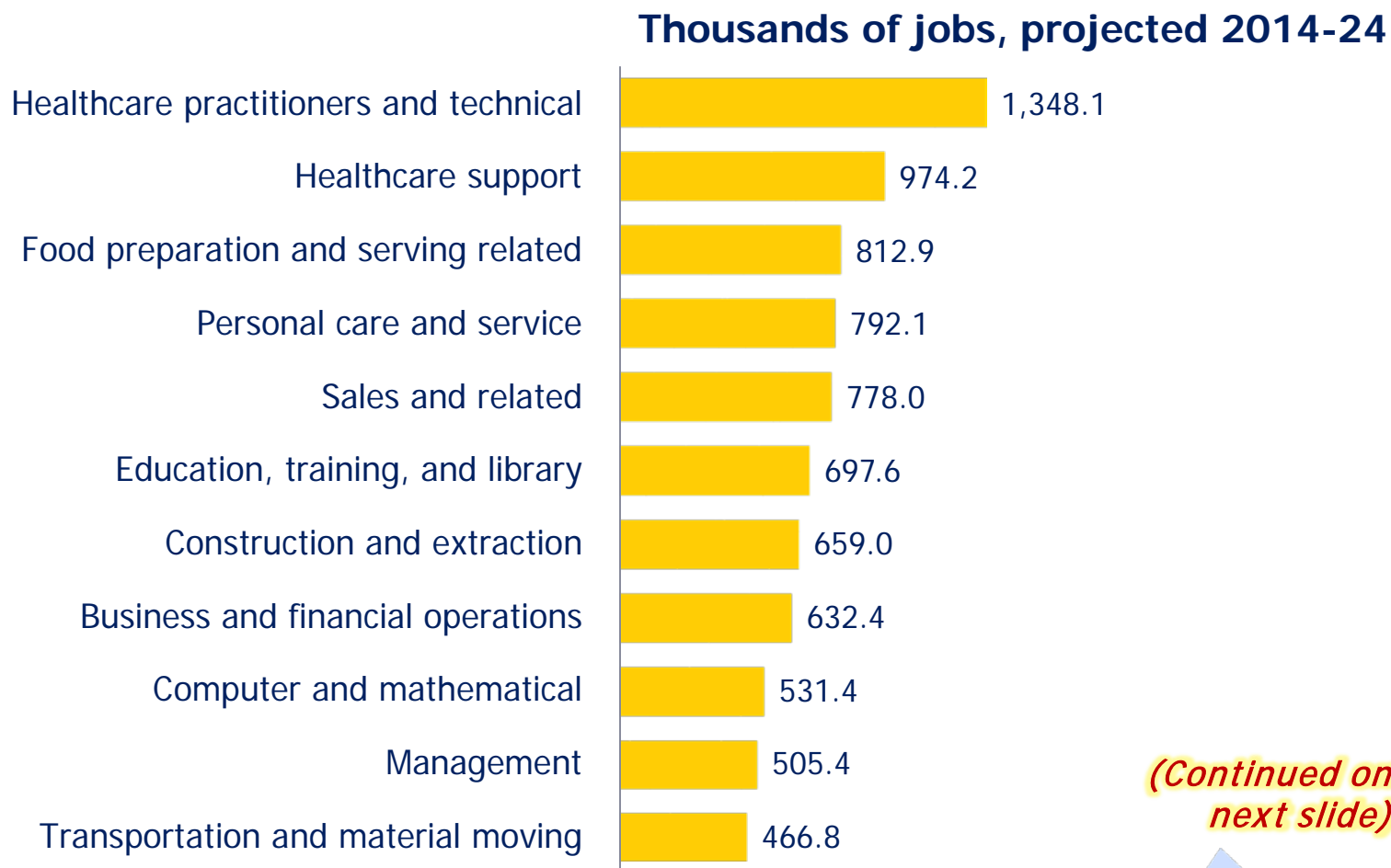
Production and Farming, Fishing, and Forestry Occupational Groups are Projected to Decline

Percent change, projected 2014-24

(Continued)



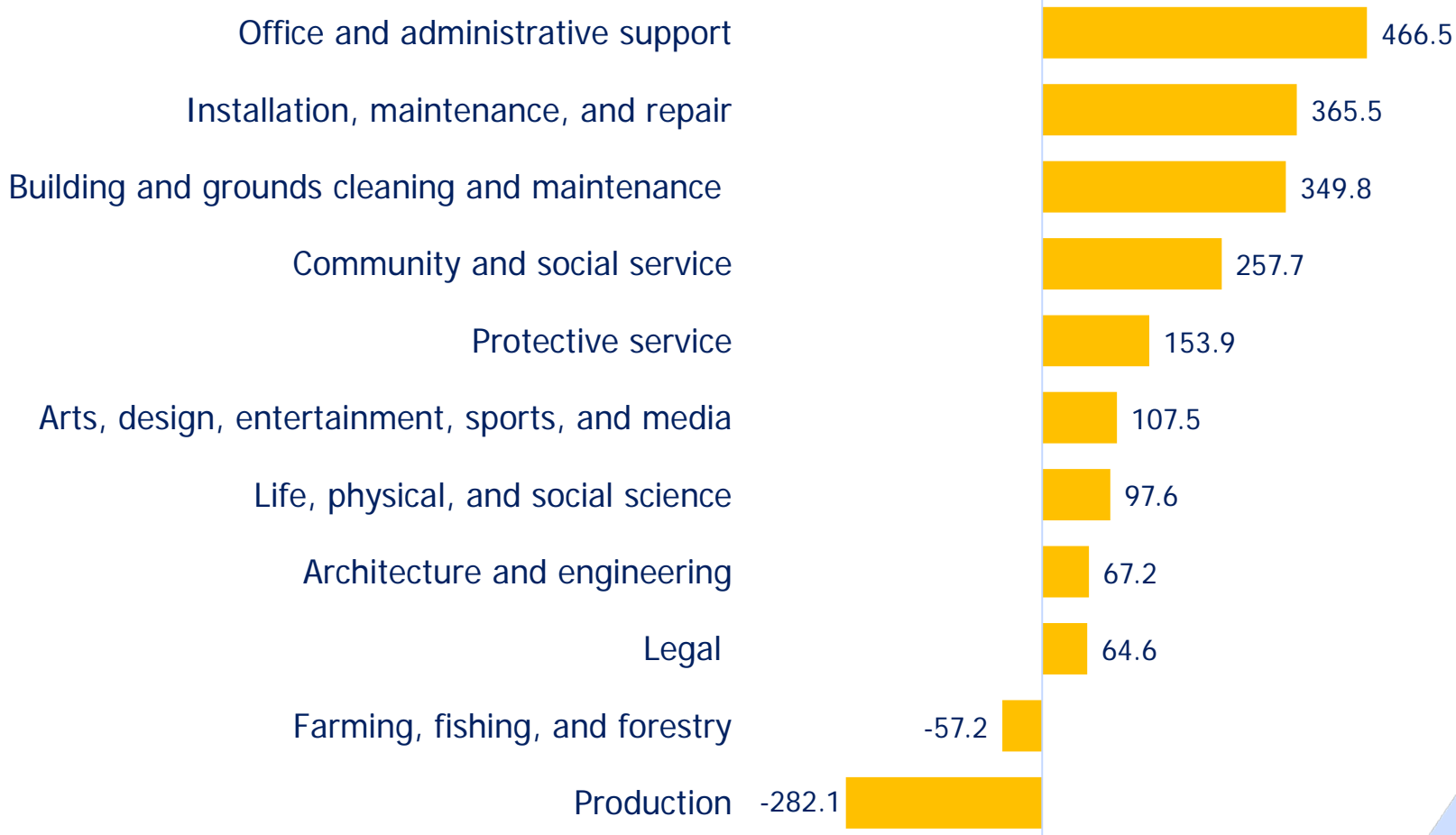
Healthcare Practitioners Add the Most Jobs



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next slide)*

Production Occupations Have Largest Declines

Thousands of jobs, projected 2014-24 *(Continued)*

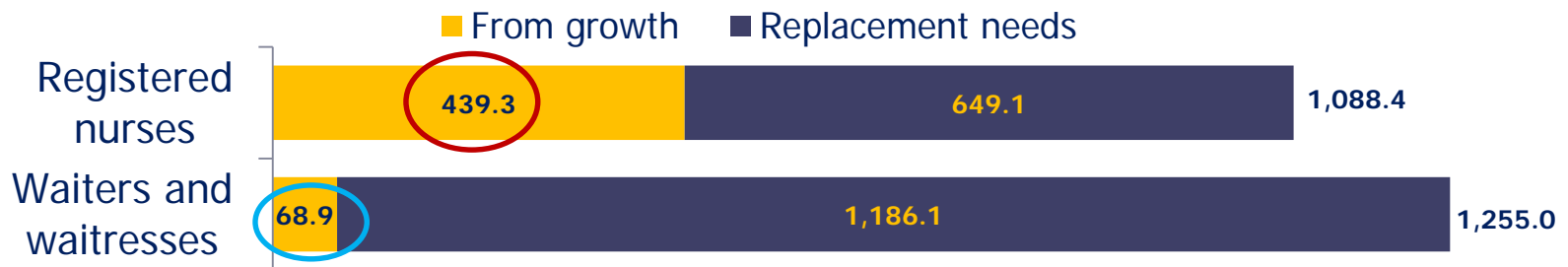


Employment Growth vs. Replacement Needs

Numeric employment growth in two occupations,
projected 2014-24, in thousands

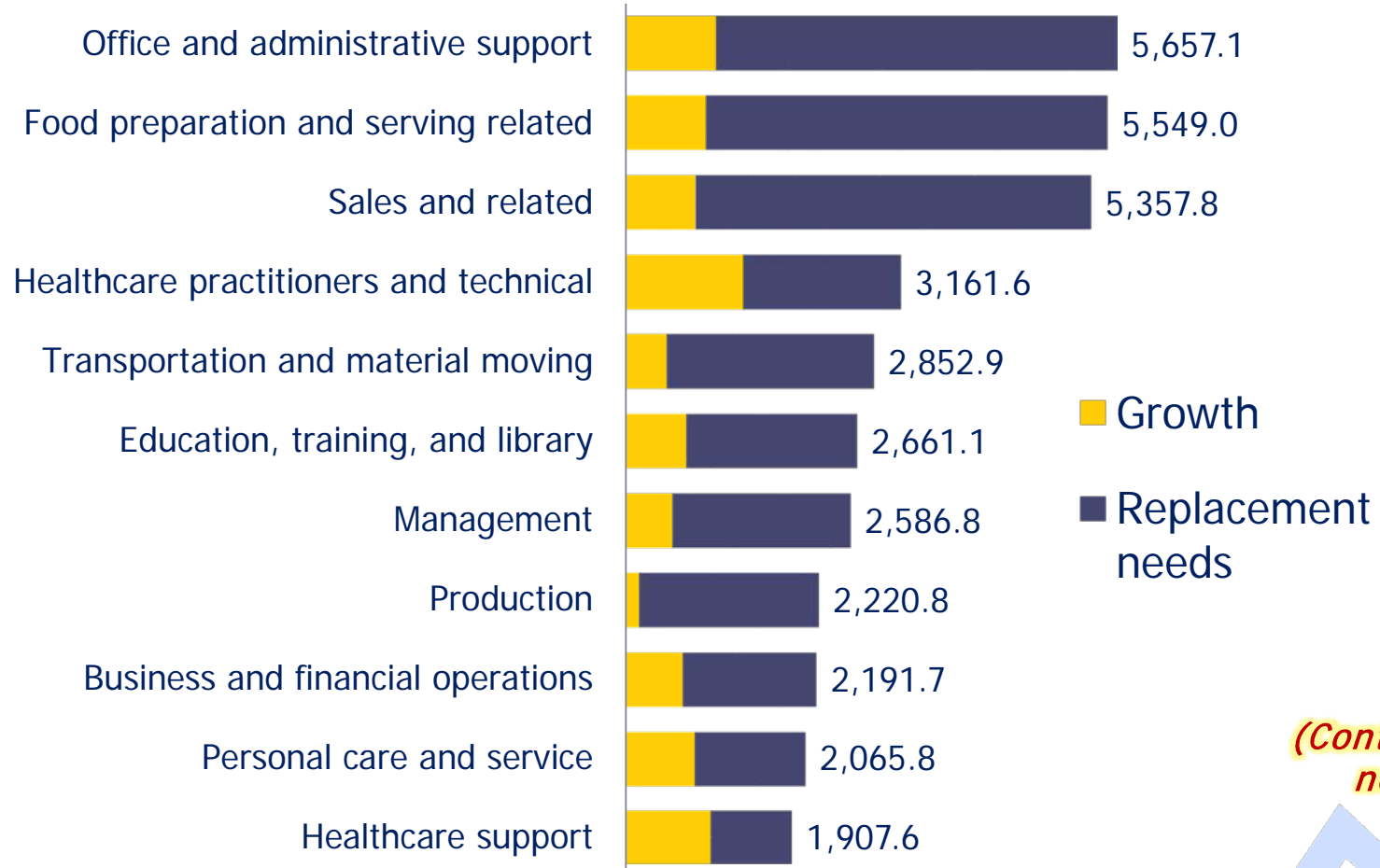


Job openings for two occupations,
projected 2014-24, in thousands



Job Openings Come From Growth and Replacement Needs

Thousands of job openings, projected 2014-24

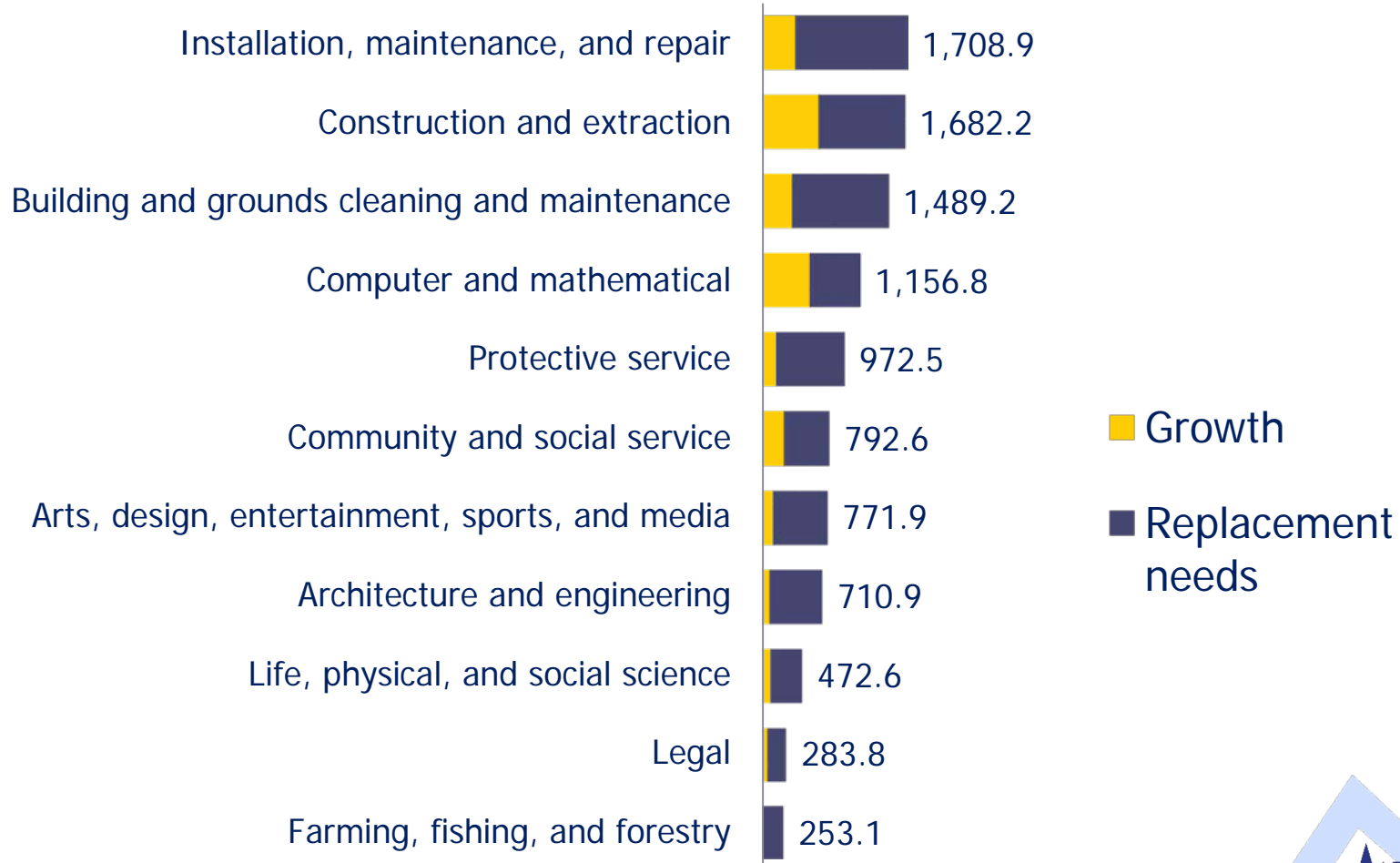


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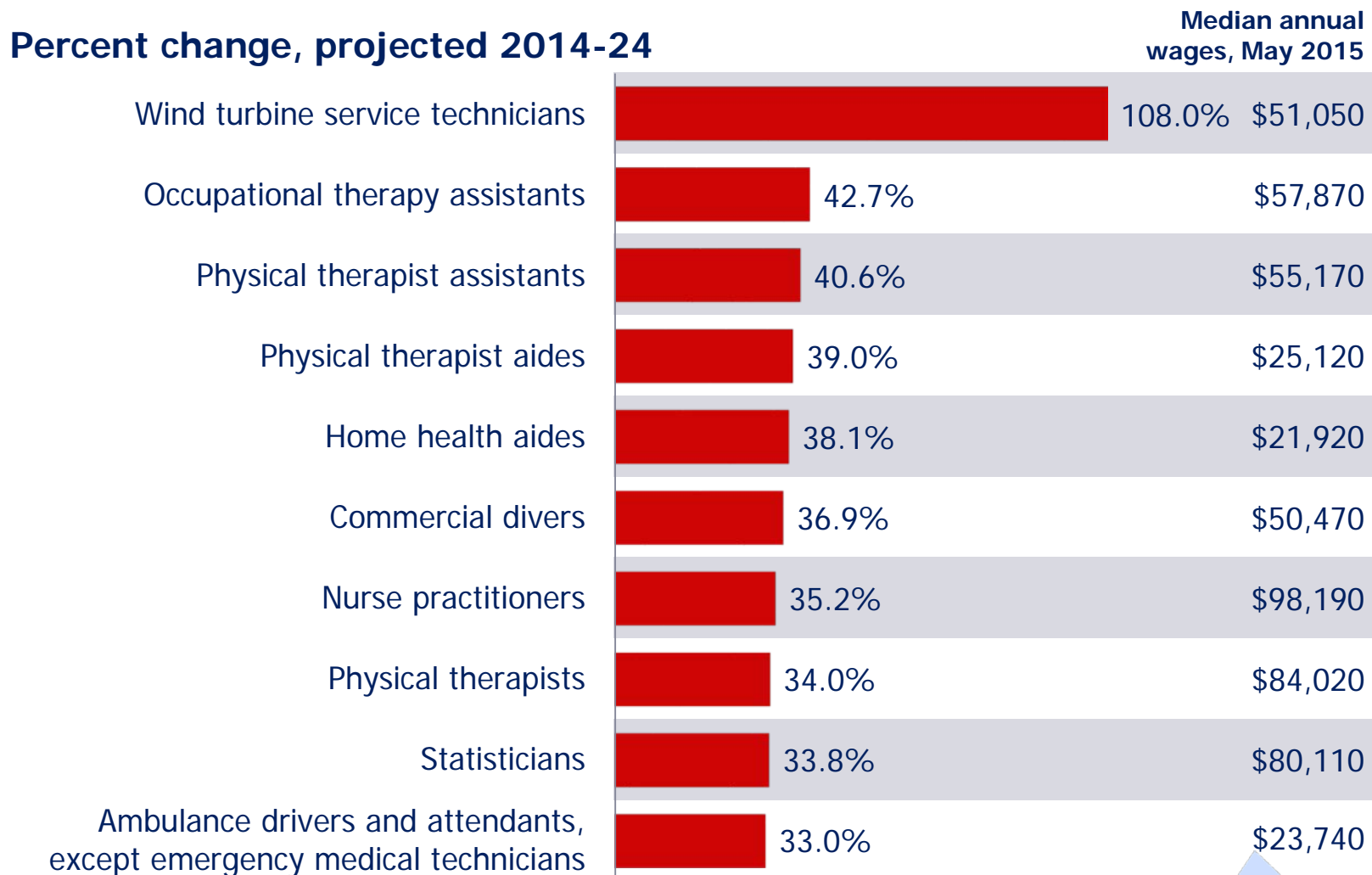
Openings Exist Even in Declining Occupations

Thousands of job openings, projected 2014-24

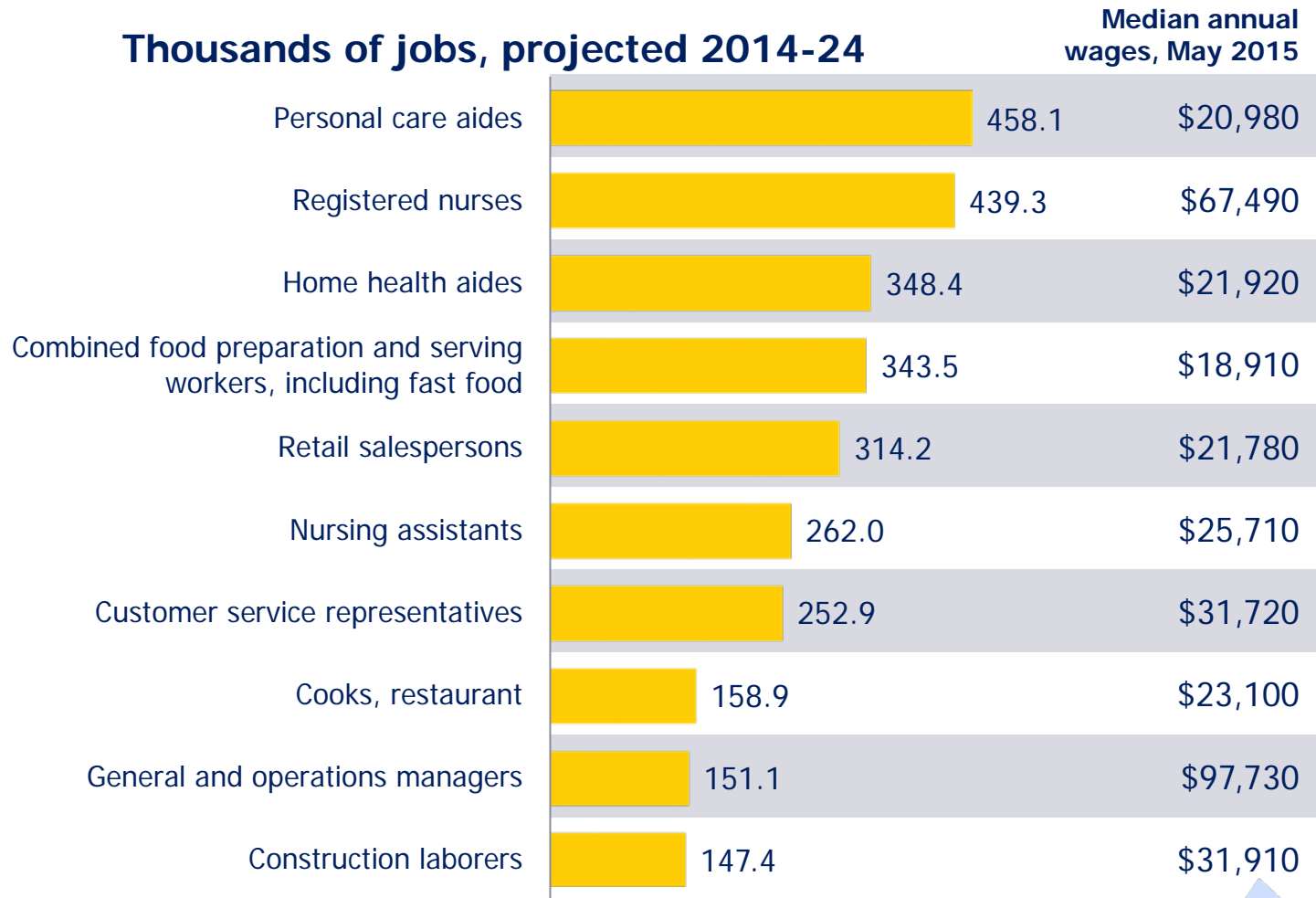
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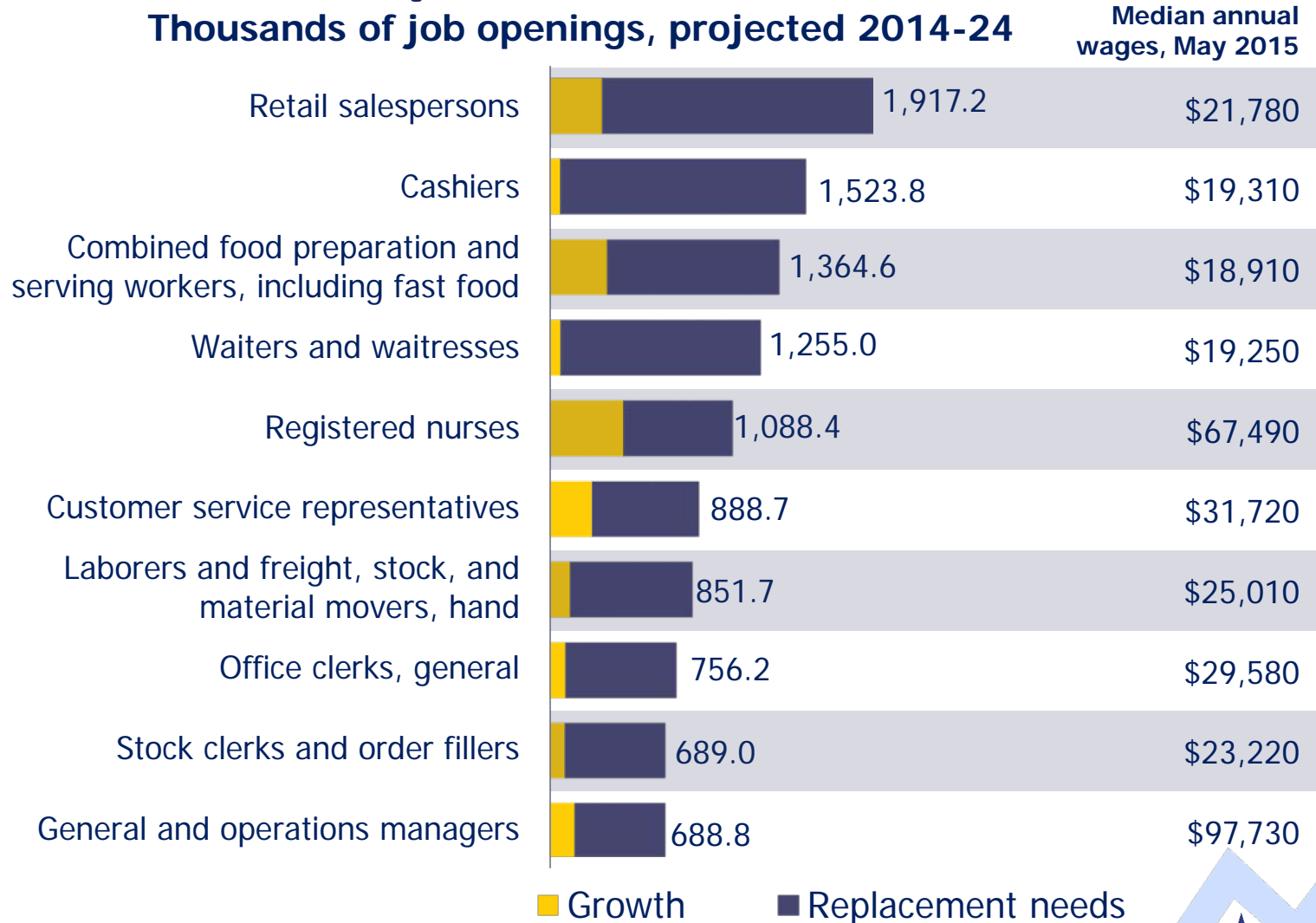
7 of the 10 Fastest Growing Occupations are Related to Healthcare



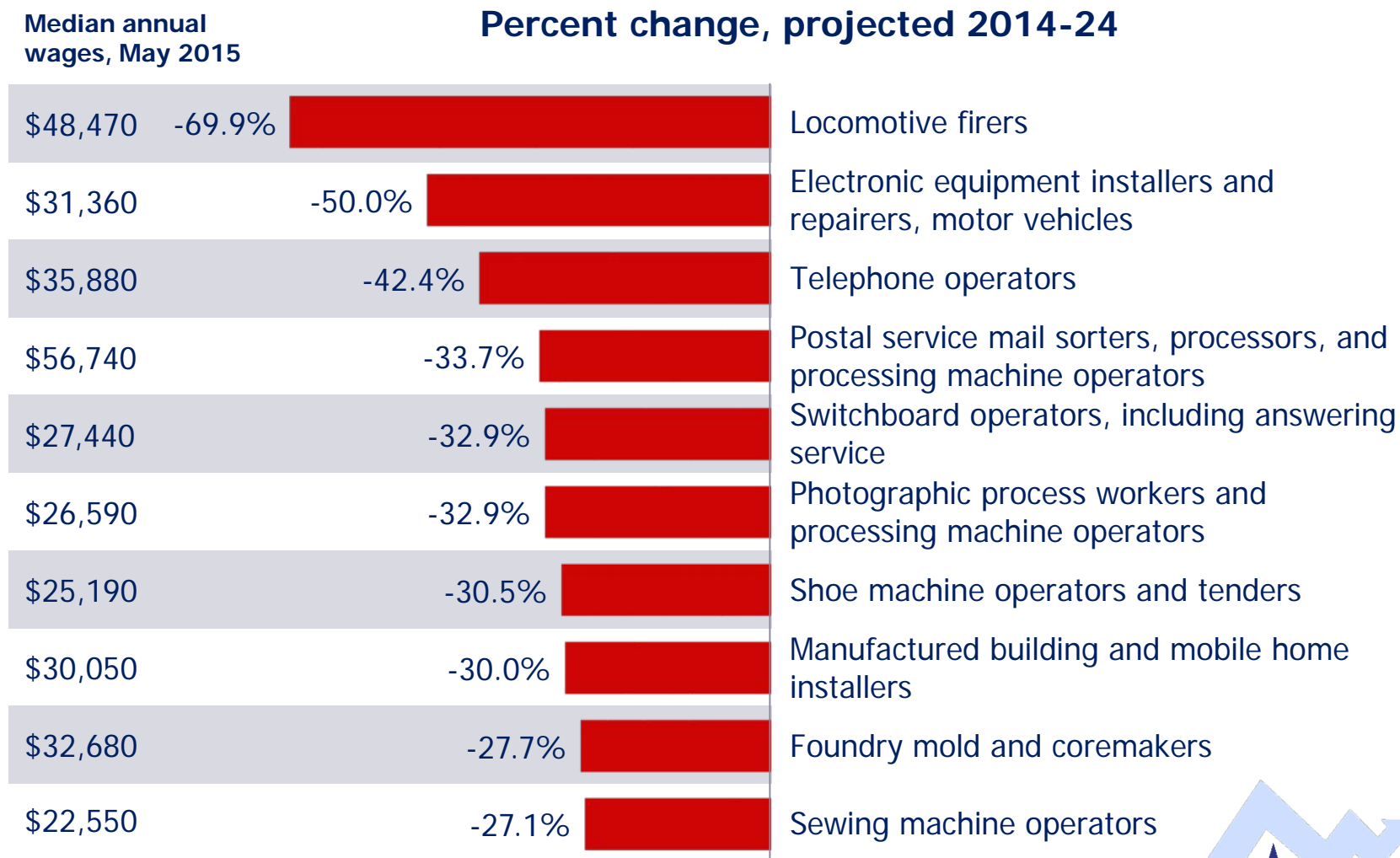
Personal Care Aides and Registered Nurses are Projected to Add the Most New Jobs



Job Openings Result from Growth and Replacement Needs



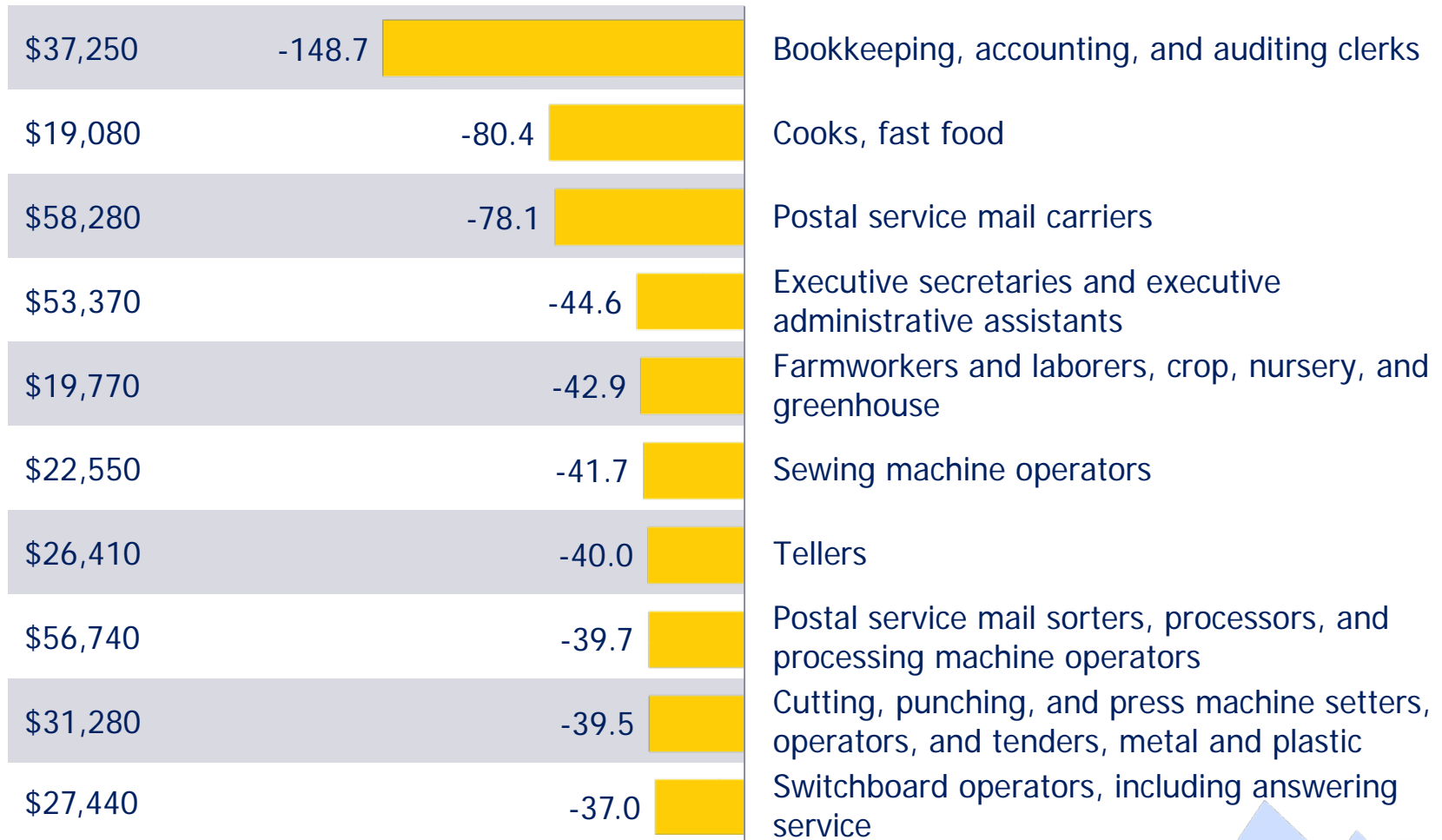
Many Declining Occupations are being Automated



Bookkeeping, Accounting, and Auditing Clerks Lose the Most Jobs

Median annual
wages, May 2015

Thousands of jobs, projected 2014-24



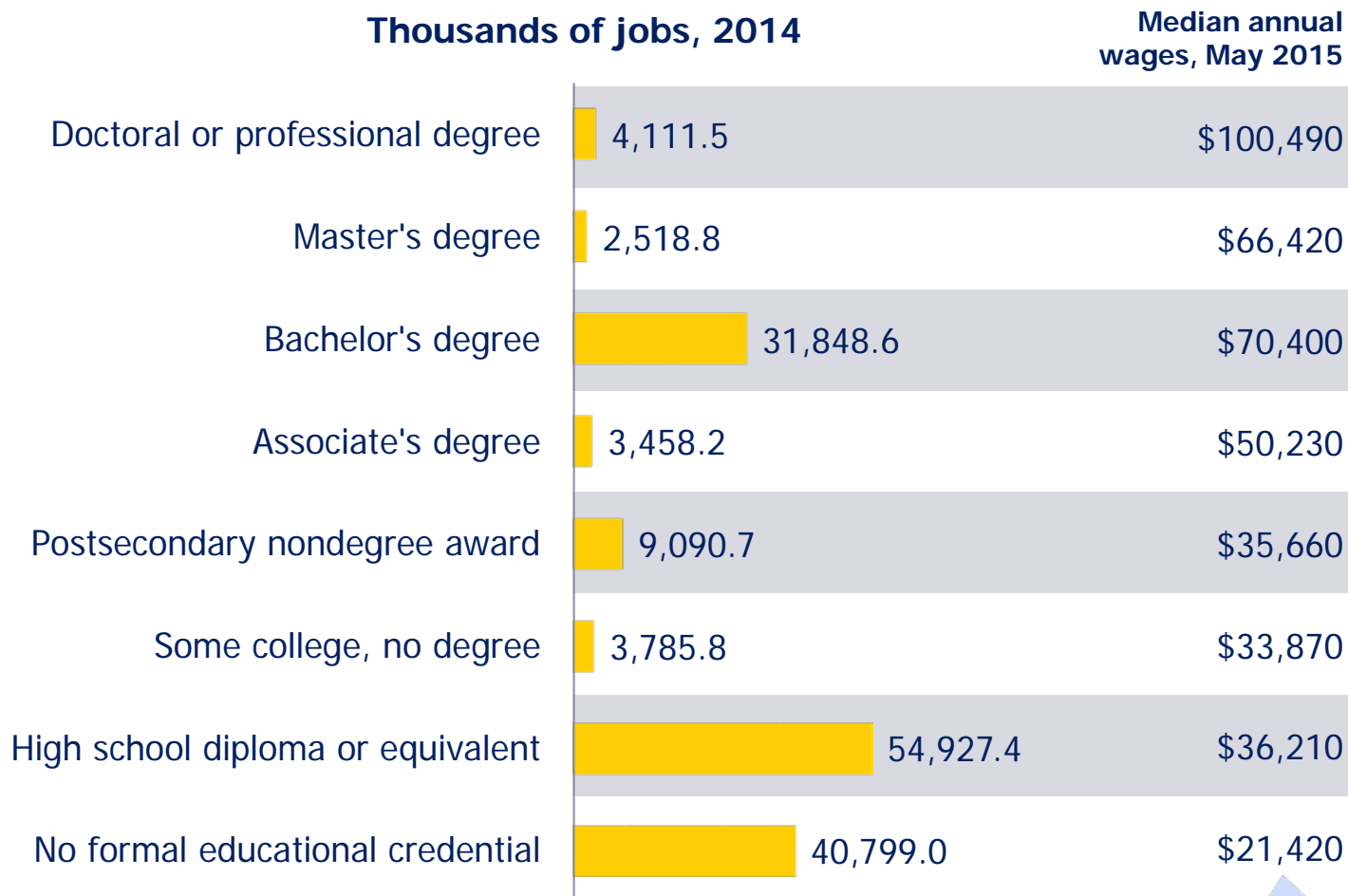
Education and Training Classification

- Consists of three categories of information for each occupation:
 - ▶ Typical education needed for entry
 - ▶ Work experience in a related occupation
 - ▶ Typical on-the-job training needed to attain competency in the occupation

Education and Training Classification

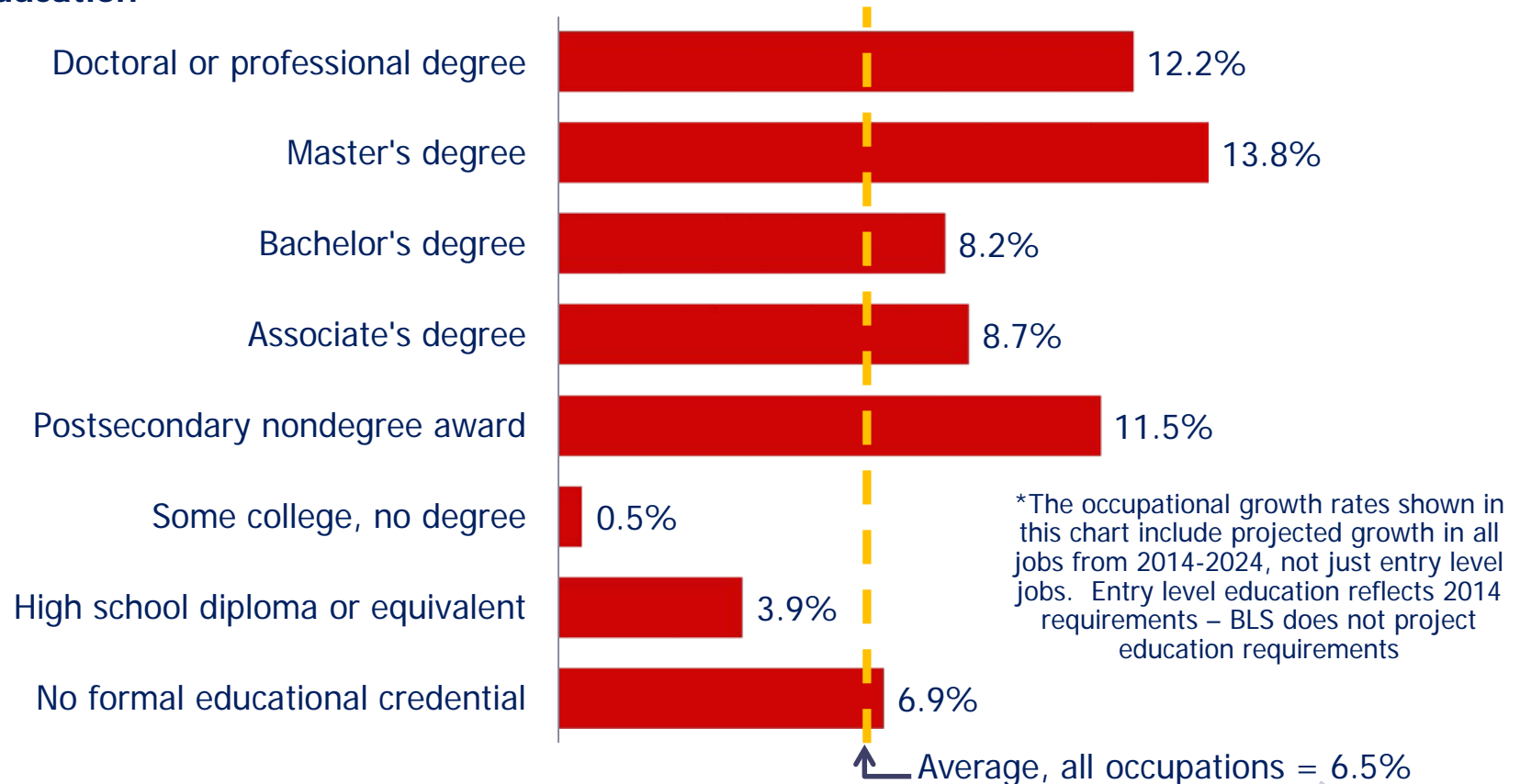
- Assignments to each category based on BLS research
- Quantitative research
 - ▶ American Community Survey (ACS) data
 - ▶ O*NET data
 - ▶ National Center for Education Statistics (NCES) data
- Qualitative research
 - ▶ Interviews with occupational experts

Education and Training Pay



Occupations that Need More Education for Entry are Projected to Grow Faster*

Projected 2014-24 growth rate in occupational employment by typical 2014 entry-level education



Graduate Degree Occupations with the Largest Job Growth

W	T	Thousands of jobs, projected 2014-24	Median annual wages, May 2015
		Physical therapists	71.8 \$84,020
I/R		Physicians and surgeons, all other	51.7 >=\$187,200
		Nurse practitioners	44.7 \$98,190
		Lawyers	43.8 \$115,820
<5		Health specialties teachers, postsecondary	40.0 \$90,840
		Healthcare social workers	30.9 \$52,380
I/R		Clinical, counseling, and school psychologists	30.5 \$70,580
		Occupational therapists	30.4 \$80,150
		Speech-language pathologists	28.9 \$73,410
		Physician assistants	28.7 \$98,180

Doctoral or Professional Degree Occupations with the Largest Job Growth

W	T	Thousands of jobs, projected 2014-24	Median annual wages, May 2015
		Physical therapists	71.8 \$84,020
I/R		Physicians and surgeons, all other	51.7 >=\$187,200
		Lawyers	43.8 \$115,820
<5		Health specialties teachers, postsecondary	40.0 \$90,840
I/R		Clinical, counseling, and school psychologists	30.5 \$70,580
		Dentists, general	23.3 \$152,300
		Postsecondary teachers, all other	21.7 \$63,000
I/R		Family and general practitioners	14.3 \$184,390
		Optometrists	11.0 \$103,900
		Mathematical science teachers, postsecondary	10.4 \$67,170

Master's Degree Occupations with the Largest Job Growth

W	T	Thousands of jobs, projected 2014-24	Median annual wages, May 2015
		Nurse practitioners 44.7	\$98,190
		Healthcare social workers 30.9	\$52,380
		Occupational therapists 30.4	\$80,150
		Speech-language pathologists 28.9	\$73,410
		Physician assistants 28.7	\$98,180
I/R		Mental health counselors 26.4	\$41,880
		Educational, guidance, school, and vocational counselors 22.5	\$53,660
<5		Education administrators, postsecondary 15.2	\$88,580
5+		Education administrators, elementary and secondary school 14.0	\$90,410
<5		Nursing instructors and teachers, postsecondary 13.2	\$67,480



Bachelor's Degree Occupations with the Largest Job Growth

W	T	Thousands of jobs, projected 2014-24	Median annual wages, May 2015
		Registered nurses	439.3 \$67,490
5+		General and operations managers	151.1 \$97,730
		Accountants and auditors	142.4 \$67,190
		Software developers, applications	135.3 \$98,260
		Computer systems analysts	118.6 \$85,800
<5		Management analysts	103.4 \$81,320
		Market research analysts and marketing specialists	92.3 \$62,150
I/R		Elementary school teachers, except special education	78.3 \$54,890
L		Personal financial advisors	73.9 \$89,160
I/R		Teachers and instructors, all other	66.5 \$28,960

Associate's Degree or Postsecondary Non-degree Award Occupations with the Largest Job Growth

Thousands of jobs, projected 2014-24		Median annual wages, May 2015
W	T	
	Nursing assistants	262.0 \$25,710
	Medical assistants	138.9 \$30,590
	Licensed practical and licensed vocational nurses	117.3 \$43,170
S	Heavy and tractor-trailer truck drivers	98.8 \$40,260
	Dental assistants	58.6 \$35,980
	Emergency medical technicians and paramedics	58.5 \$31,980
	Hairdressers, hairstylists, and cosmetologists	58.4 \$23,660
L	Heating, air conditioning, and refrigeration mechanics and installers	39.6 \$45,110
	Web developers	39.5 \$64,970
S	Automotive service technicians and mechanics	39.1 \$37,850



High School Diploma Occupations with the Largest Job Growth

W	T	Thousands of jobs, projected 2014-24	Median annual wages, May 2015
	S	Customer service representatives	252.9 \$31,720
<5		First-line supervisors of office and administrative support workers	121.2 \$52,630
M		Medical secretaries	108.2 \$33,040
	S	Receptionists and information clerks	97.8 \$27,300
	S	Office clerks, general	95.8 \$29,580
	M	Sales representatives, wholesale and manufacturing, except technical and scientific products	93.4 \$55,730
<5		First-line supervisors of food preparation and serving workers	88.5 \$30,340
	A	Electricians	85.9 \$51,880
	L	Maintenance and repair workers, general	83.5 \$36,630
	M	Sales representatives, services, all other	70.6 \$51,700



No Formal Educational Credential

Occupations with the Largest Job Growth

W	T	Thousands of jobs, projected 2014-24	Median annual wages, May 2015
	S	Personal care aides	458.1 \$20,980
	S	Home health aides	348.4 \$21,920
	S	Combined food preparation and serving workers, including fast food	343.5 \$18,910
	S	Retail salespersons	314.2 \$21,780
<5	M	Cooks, restaurant	158.9 \$23,100
	S	Construction laborers	147.4 \$31,910
	S	Janitors and cleaners, except maids and housekeeping cleaners	136.3 \$23,440
	S	Laborers and freight, stock, and material movers, hand	125.1 \$25,010
	S	Maids and housekeeping cleaners	111.7 \$20,740
	S	Stock clerks and order fillers	92.9 \$23,220



Employment Outlook: 2014-24

Resources for Additional Information



Occupational Outlook Handbook

www.bls.gov/ooh

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On-the-job Training ▾

Number of New Jobs (Projected) ▾

Growth Rate (Projected) ▾

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FEATURED OCCUPATION



Secretaries and Administrative Assistants

Secretaries and administrative assistants perform routine clerical and administrative duties. They organize files, draft messages, schedule appointments, and support other staff.

[view profile »](#)

Career Outlook

www.bls.gov/careeroutlook



Careers for night owls and early birds

Elka Torpey | October 2015

Think working 9 to 5 is your only option? Not so: You can work odd hours and still have a successful career.

[Read full article »](#)



Data on display

Work and play: What do Americans do all day?

There are many ways to pass the hours: working, cleaning, sleeping. New data shows how people really spend their time.

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You're a what?

Hospitalist

William Atchley guides patients through the complexities of a hospital stay and helps with ongoing treatment after they go home.



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Employment Projections Program

www.bls.gov/emp



The screenshot shows the official website of the Bureau of Labor Statistics' Employment Projections Program. The header is red with the BLS logo and navigation links. The main content area is white with a red sidebar on the left. The title 'Employment Projections' is in a large, bold, red font. Below the title, there is a description of the program and a 'NOTICE' box. A 'On This Page' section lists various links. The 'EP News Releases' section is highlighted, showing 'Current' and 'Archived' releases.

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Employment Projections

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EMPLOYMENT REQUIREMENTS MATRIX
FACTOR ANALYSIS
INDUSTRY OUTPUT AND EMPLOYMENT
INTER-INDUSTRY RELATIONSHIPS (INPUT-OUTPUT MATRIX)
LABOR FORCE
OCCUPATIONAL EMPLOYMENT

The **Employment Projections (EP)** program develops information about the labor market for the Nation as a whole for 10 years in the future.

NOTICE 2014–21 Employment Projections were released

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Archived

- [Economic and Employment Projections](#)
- [Occupational Outlook Handbook Published](#)



Projections articles in *Monthly Labor Review*

- Overview of projections to 2024
- The U.S. economy to 2024
- Labor force projections to 2024: the labor force is growing, but slowly
- Industry employment and output projections to 2024
- Occupational employment projections to 2024
- Links to articles at
<http://www.bls.gov/emp/publications.htm>



Useful Employment Projections Sites

- Technical documentation of Employment Projections program methods and data
 - ▶ http://www.bls.gov/emp/ep_projections_methods.htm
- Other Employment Projections program publications, including past *Monthly Labor Review* articles
 - ▶ <http://www.bls.gov/emp/publications.htm>
- Frequently asked questions
 - ▶ http://www.bls.gov/emp/ep_faq_001.htm



State and Local Area Projections

- BLS prepares projections only for the nation as a whole
- Projections of industry and occupational employment are prepared by each state, using input from the BLS national projections
- State projections data, and links to each state's projections site, are available

► <http://www.projectionscentral.com/>



Projections Evaluation

- Last performed for 1996-2006, 1998-2008, and 2000-2010 projections
- Classification changes limited evaluation of employment by industry and precluded evaluation of employment by occupation
- BLS projections outperformed naïve models in most cases
- Where comparable projections were available, the mean absolute error within the BLS projections was nearly equivalent to other agency projections
- The service sector, constituting more than 80 percent of the U.S. labor market, was generally well captured in the projections



Contact Information

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