
U.S. COMPETITIVENESS: BUILDING AMERICA'S MIDDLE SKILLS

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GE Foundation Business Leader Call

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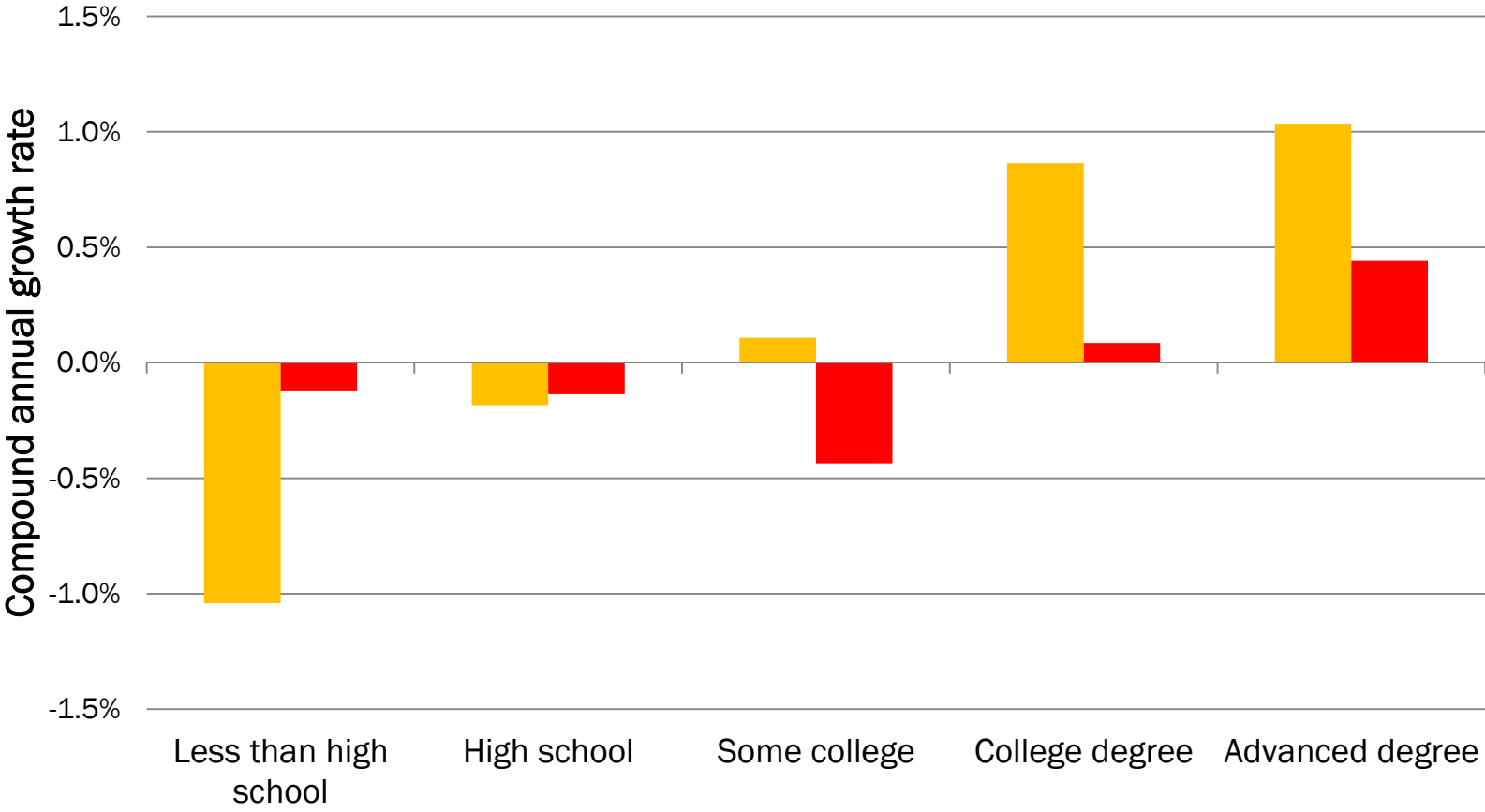
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HBS' U.S. COMPETITIVENESS PROJECT: DEFINING COMPETITIVENESS

The United States is a competitive location to the extent that firms operating in the U.S. are able to compete successfully in the global economy while supporting high and rising wages and living standards for the average American

REAL HOURLY WAGE GROWTH BY EDUCATIONAL ATTAINMENT: 1979-2000 VERSUS 2000-2012

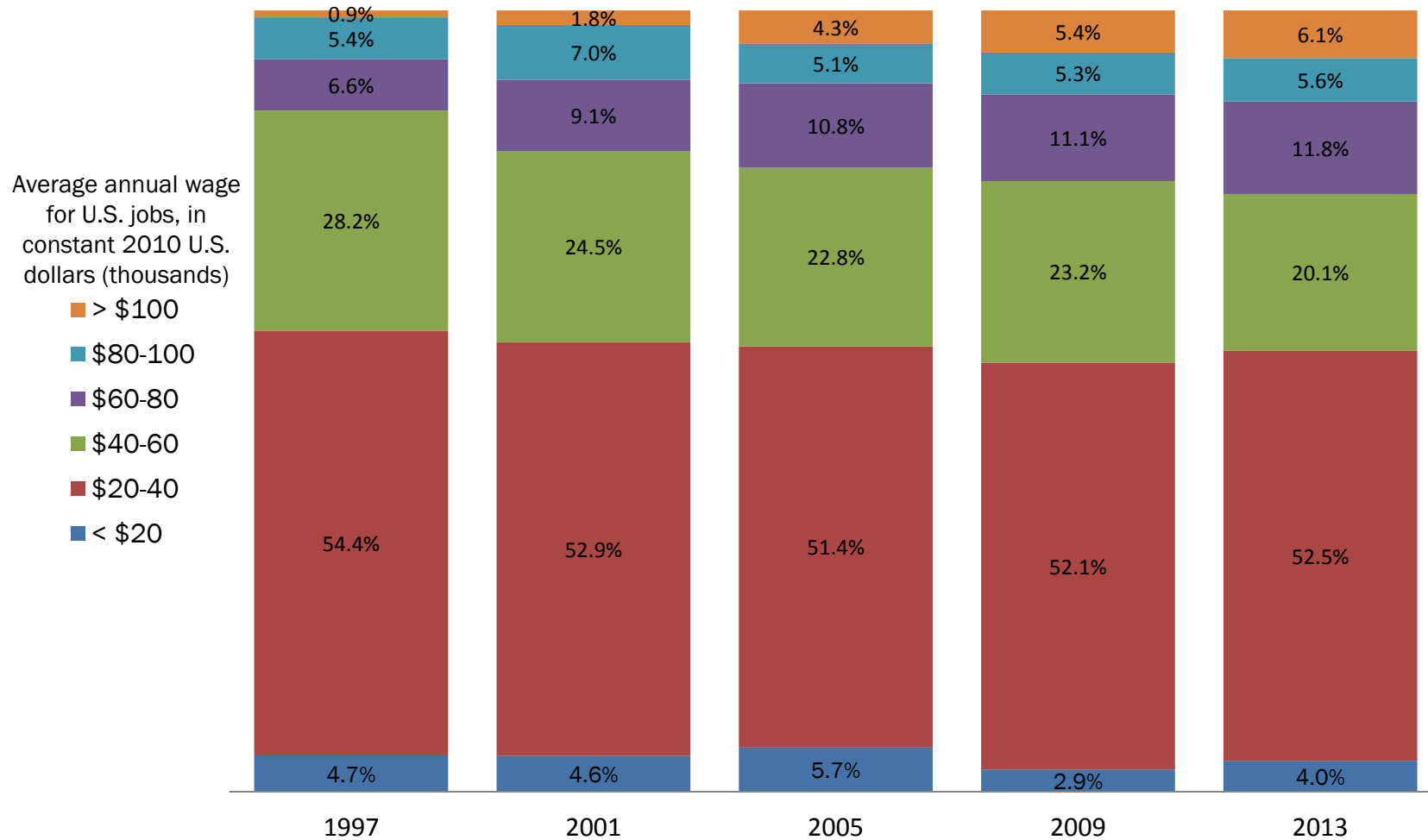


Source: Economic Policy Institute, "A Decade of Flat Wages," August 2013. Based on Current Population Survey.

■ 1979-2000
■ 2000-2012



SHARES OF U.S. JOBS BY WAGE BANDS

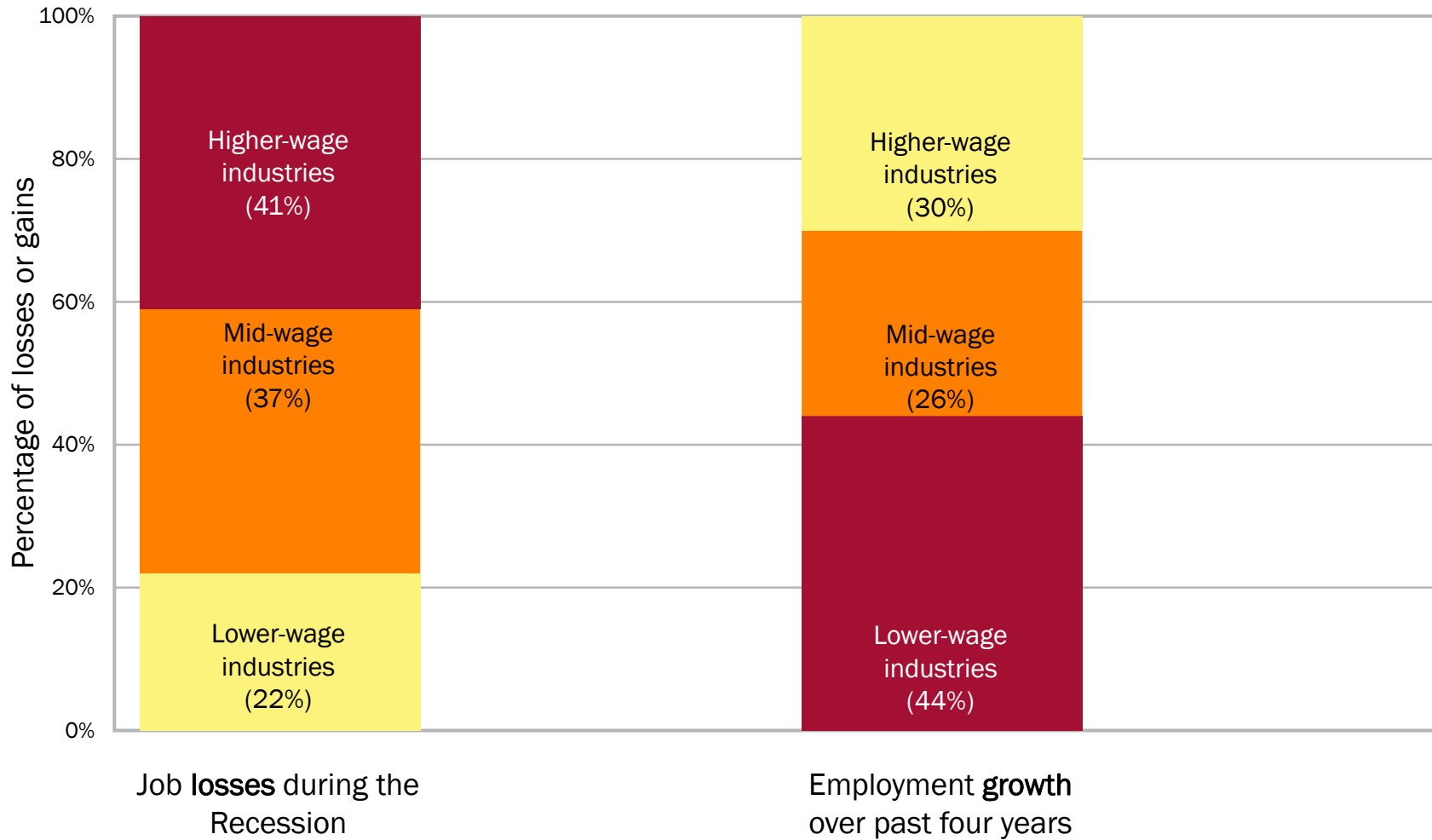


Note: Data unavailable for mine cutting and channeling machine operators for 1999, flight attendants, airline pilots, co-pilots, and flight engineers for 2000-2006, and actors, dancers, musicians and singers, and entertainers and performers, sports and related workers, all other for 2004-2010. Data unavailable for dancers, entertainers, musicians and actors for 2013.

Source: Author calculations from Bureau of Labor Statistics Occupational Employment Survey Data.



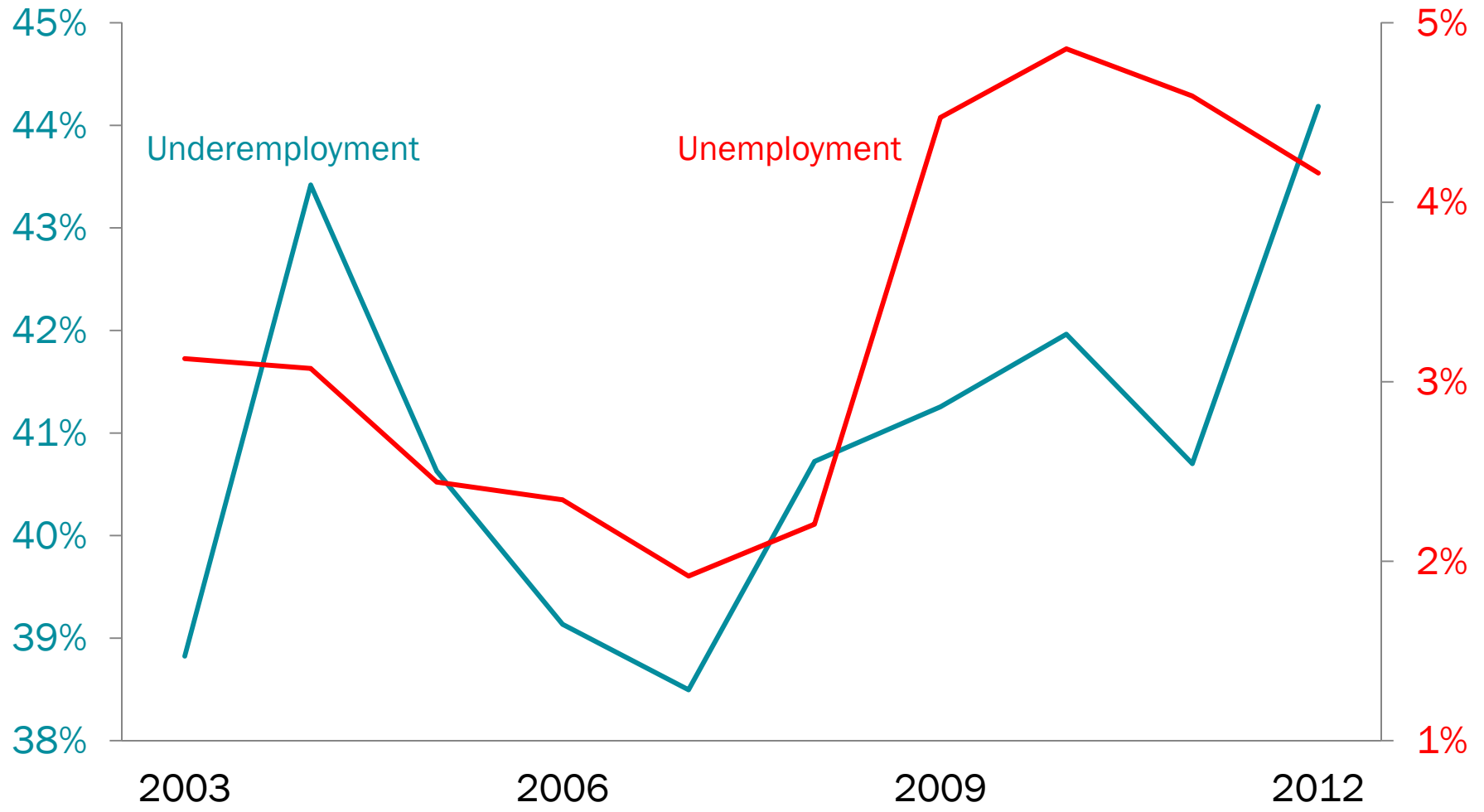
THE LOW-WAGE RECOVERY



Source: National Employment Law Project analysis of Bureau of Labor Statistics data, in "The Low-Wage Recovery: Industry Employment and Wages Four Years into the Recovery" (NELP, April 2014).



UNDEREMPLOYMENT AND UNEMPLOYMENT RATES FOR RECENT COLLEGE GRADUATES, 2003-2012



Source for underemployment curve: Abel, Jaison R., Richard Deitz, and Yaqin Su, "Are Recent College Graduates Finding Good Jobs?" *Current Issues in Economics and Finance* 20:1 (2014). Authors' tabulations of data from U.S. Census Bureau and U.S. Bureau of Labor Statistics, Current Population Survey, March Supplement; U.S. Department of Labor, O*NET. Source for unemployment curve: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements; author's calculations.

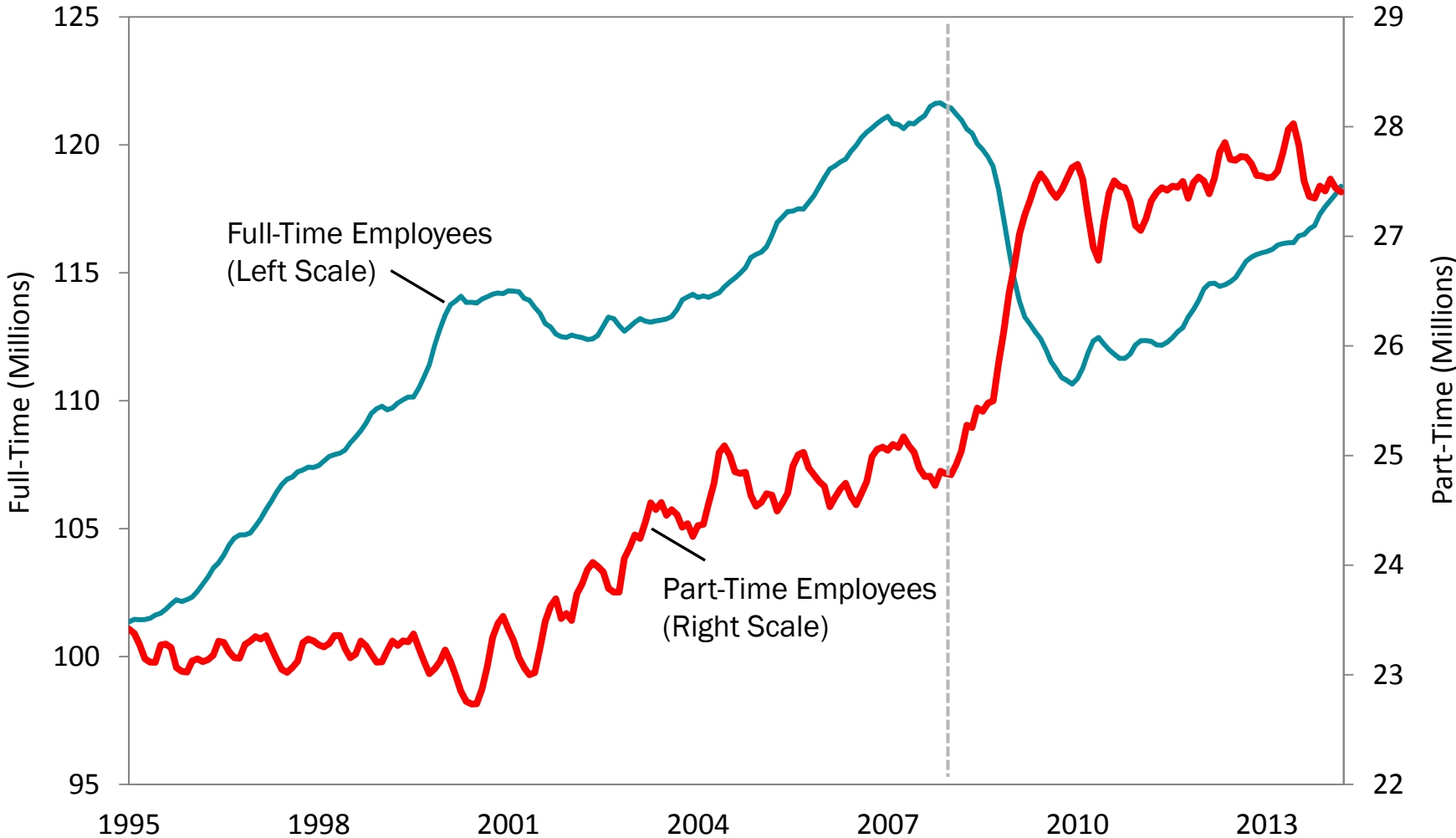


CREDENTIALS GAPS IN MIDDLE-SKILL ROLES

Occupation Title	Credentials Gap	% Job Holders with BA+	% Postings Requiring Bachelor's Degree	2013 Job Postings
Executive Secretaries and Executive Assistants	46%	19%	65%	65,046
First-Line Supervisors of Production and Operating Workers	45%	17%	62%	72,117
Transportation, Storage, and Distribution Managers	42%	32%	74%	23,515
Credit Authorizers, Checkers, and Clerks	40%	26%	66%	2,466
Training and Development Specialists	25%	50%	75%	54,605
Human Resources Assistants, Except Payroll and Timekeeping	22%	29%	51%	28,337

Source: "Moving the Goalposts: How Demand for a Bachelor's Degree is Reshaping the Workforce," Burning Glass Technologies, September 2014.

3-MONTH MOVING AVERAGE OF FULL-TIME VS. PART-TIME EMPLOYEES (SA), 1995-2014



Source: Bureau of Labor Statistics via Haver Analytics. Adapted from Gene Epstein, "Fewer Hours, Reduced Hopes," *Barron's*, August 30, 2013.

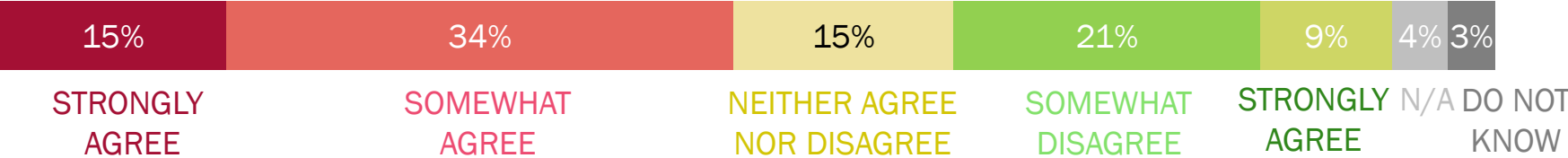


HBS SURVEY FINDINGS: EMPLOYERS' APPROACHES TO HIRING DECISIONS

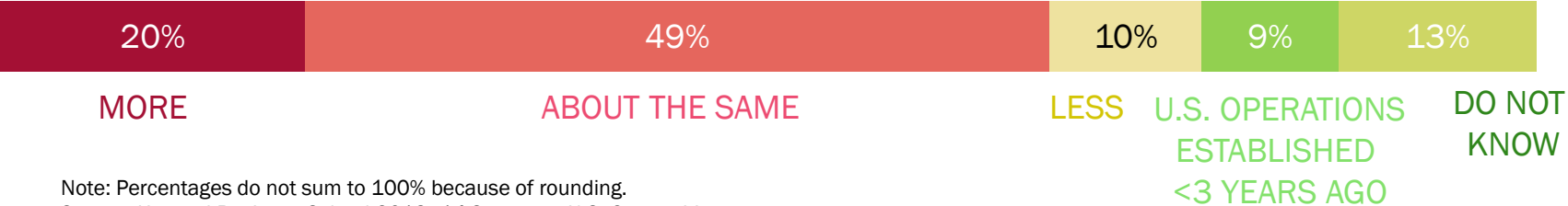
Your firm prefers to invest in new technology to perform work rather than hire or retain employees



Your firm prefers to rely on vendors that can be outsourced rather than hire additional employees



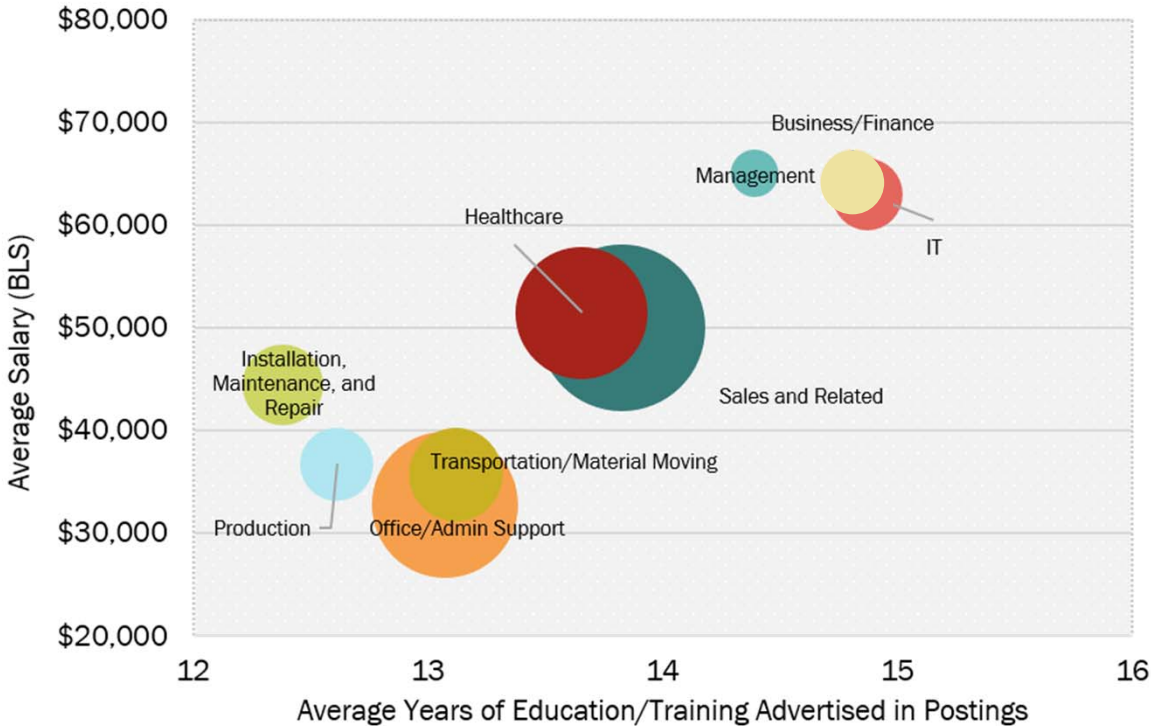
Compared to three years ago, your firm's U.S. operations use part-time workers...



Note: Percentages do not sum to 100% because of rounding.
Source: Harvard Business School 2013-14 Survey on U.S. Competitiveness.



DEFINING MIDDLE SKILLS: RELATIONSHIP BETWEEN EDUCATION AND SALARY FOR TOP MIDDLE SKILLS OCCUPATIONAL GROUPS



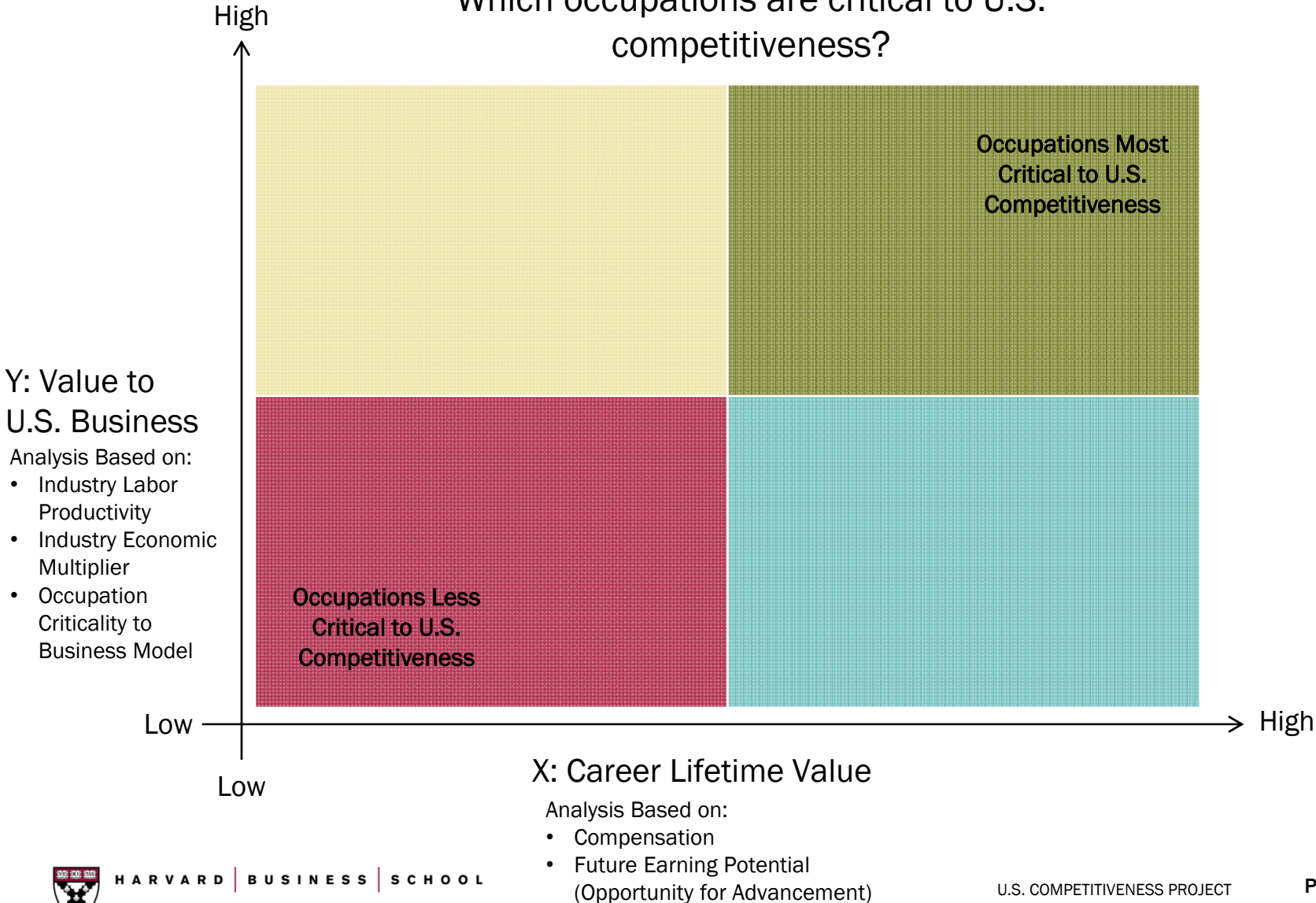
Occupation Family	Online Middle Skills Postings (2012)
Sales and Related	1,910,430
Office/Admin Support	1,481,060
Healthcare	1,209,143
Transportation/Material Moving	611,205
Installation, Maintenance and Repair	446,637
Production	363,544
IT	344,393
Business/Finance	284,945
Management	148,029

Source: Burning Glass Technologies.



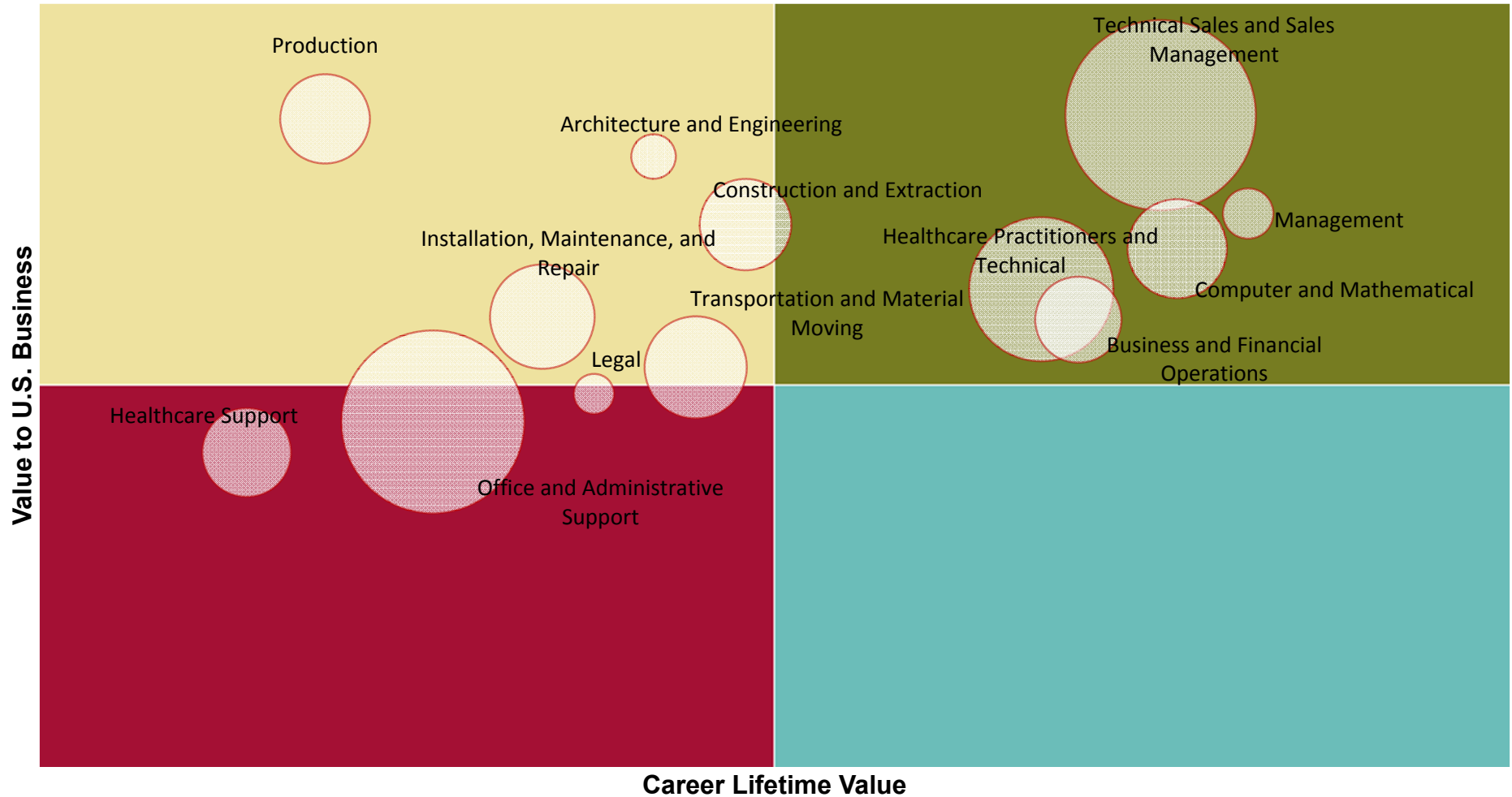
FRAMEWORK: CAREER LIFETIME VALUE AND VALUE TO U.S. BUSINESS

Which occupations are critical to U.S. competitiveness?



VALUE TO U.S. BUSINESS AND CAREER LIFETIME VALUE – NATIONAL

National – Middle-Skill Job Importance to U.S. Competitiveness By Occupation Group



Note: The number of construction and extraction jobs is an estimate.



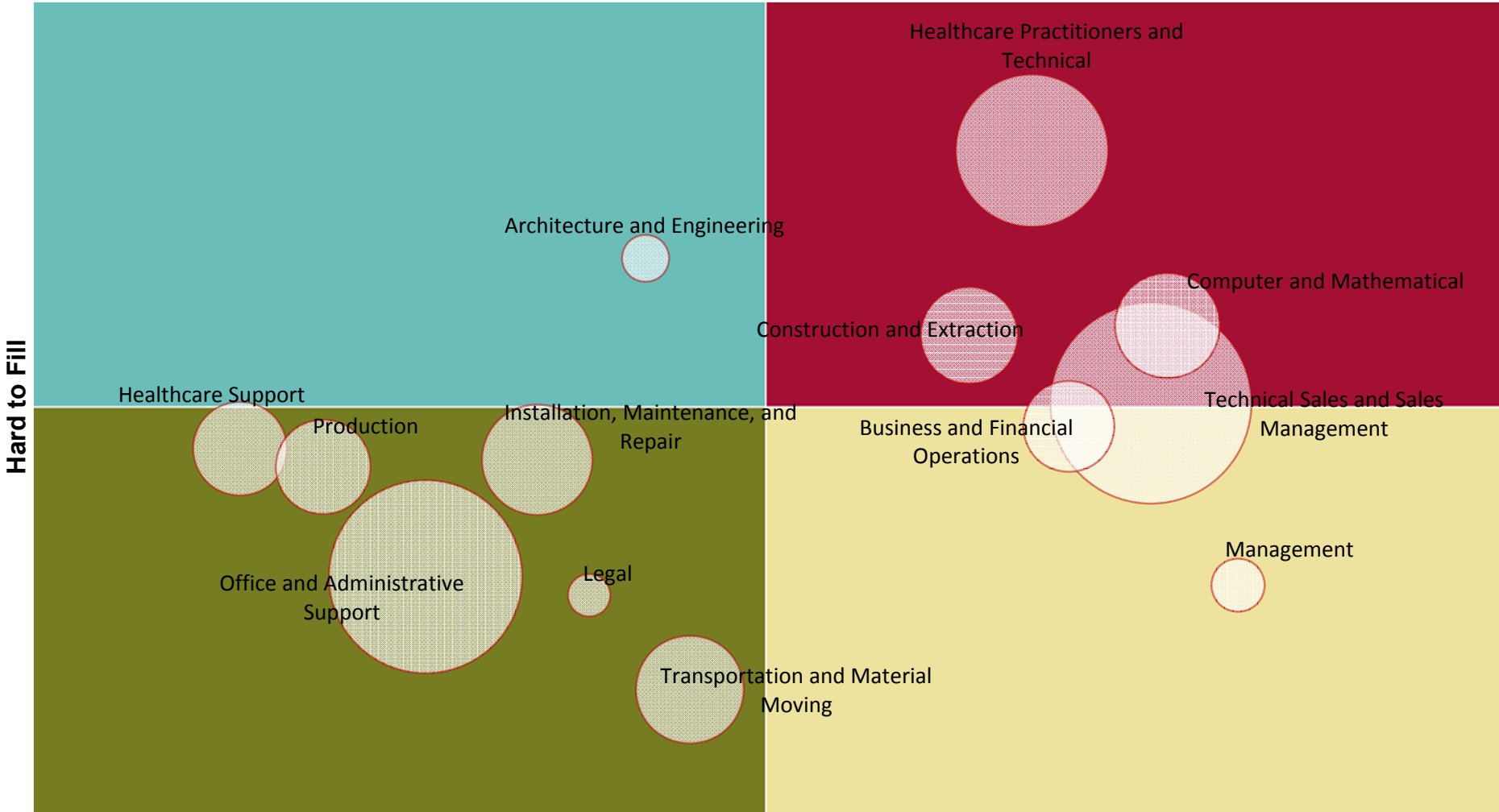
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HARD-TO-FILL JOBS – NATIONAL

National - Hard to Fill Analysis By Occupation Group



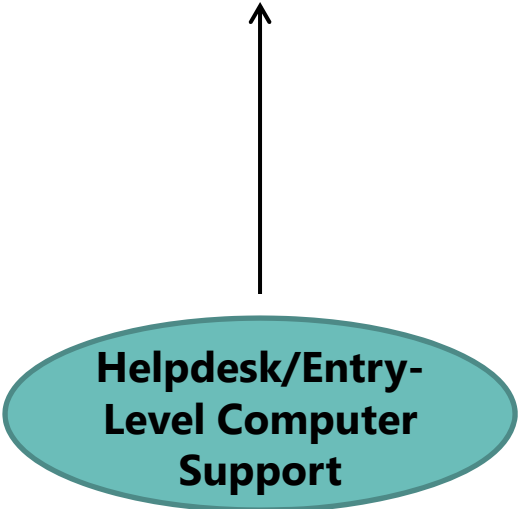
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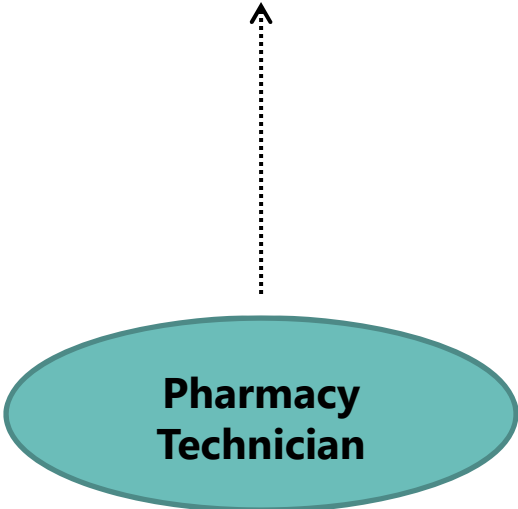
PATHWAYS TO PROSPERITY?

NOT ALL MIDDLE SKILLS JOBS ARE CREATED EQUAL

- Possible next steps: IT recruiter, help desk manager, advanced computer support, network support
 - Salaries ranging \$61,000-\$78,000
 - Often posted with BA requirement
 - Significant overlap in certifications required
- Little upward mobility (bimodal ecosystem of pharmacists and technicians)
 - Certifications rarely port to other clinical jobs

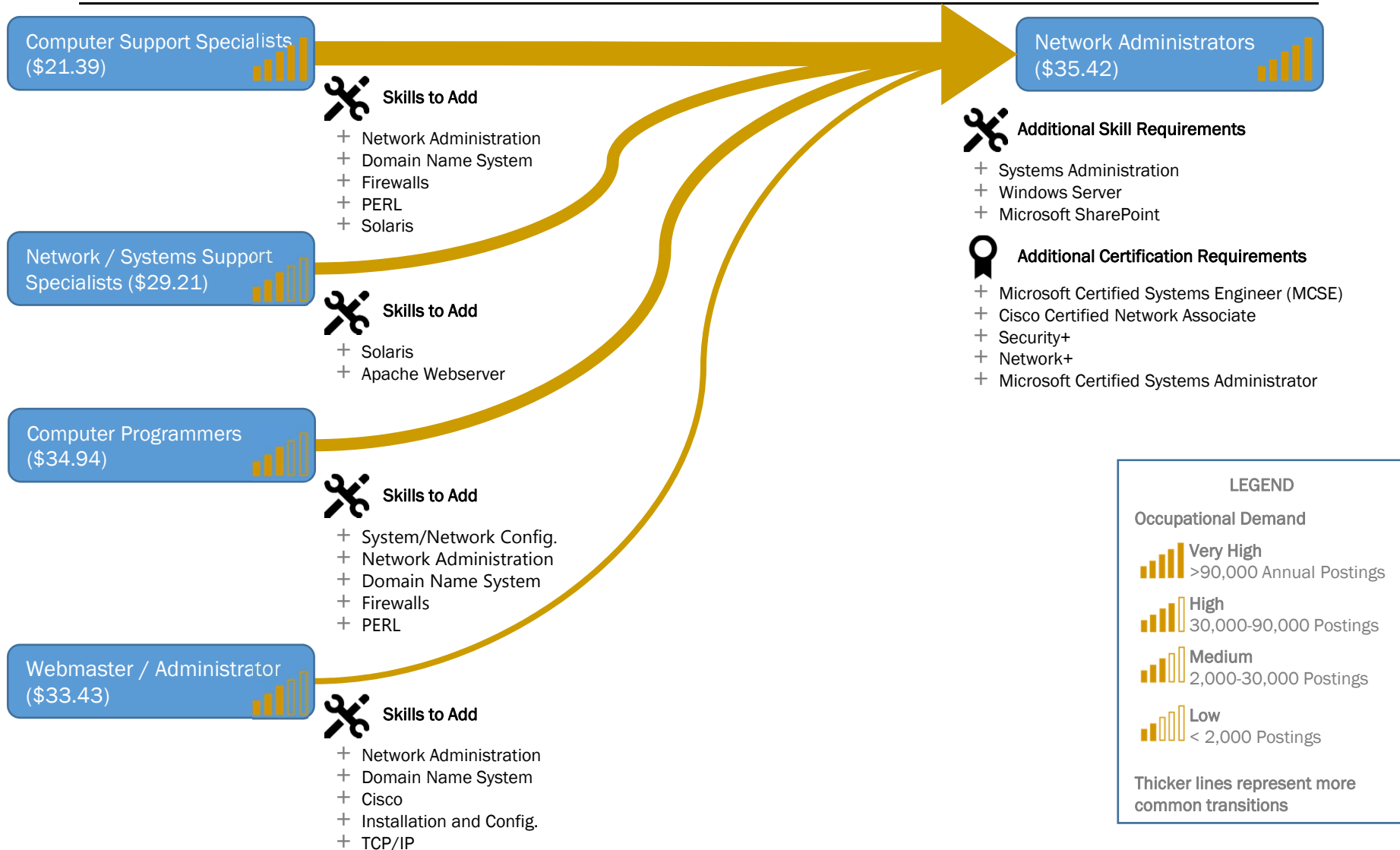


\$44,826
54% of postings sub-BA



\$29,650
BA not required

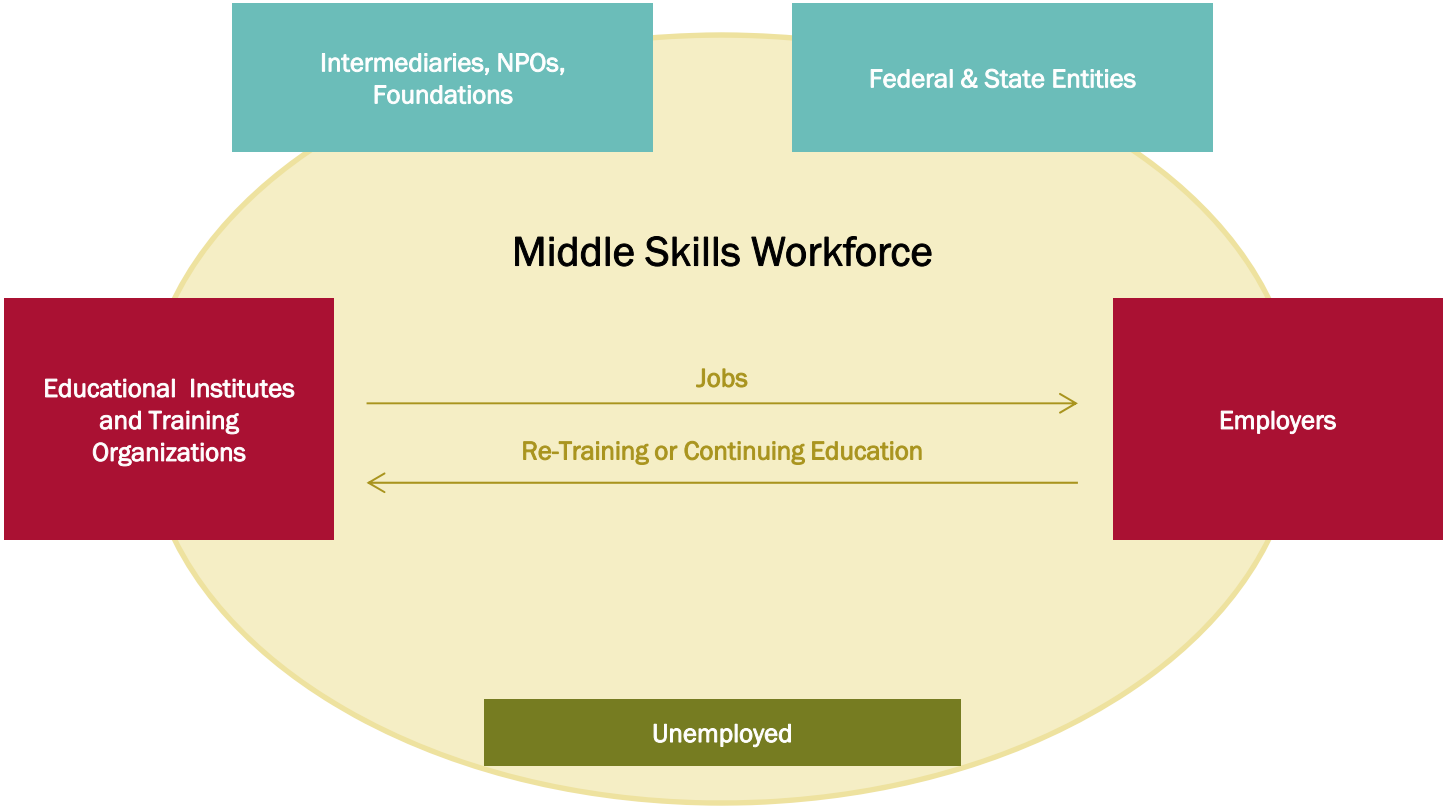
CAREER LADDERS: COMMON PATHWAYS INTO NETWORK ADMINISTRATOR ROLES



Source: Burning Glass Technologies. Transition pathways are based on the frequency of career transitions observed in millions of resumes and analysis of skill requirements in Burning Glass' proprietary database of >100M online job postings. Wage data reflect the mean advertised hourly wage.



MIDDLE SKILLS ECOSYSTEM: CLOSING THE GAP BETWEEN SUPPLY AND DEMAND



CLOSING THE MIDDLE SKILLS GAP BY TAKING ACTION: RECOMMENDATIONS FOR THREE KEY CONSTITUENCIES

BUSINESS LEADERS

- Apply supply chain management principles to sourcing middle-skills talent
- Invest in suppliers for jobs that are critical or hard to fill; develop ongoing relationships with preferred sources of talent
- Overhaul hiring practices pertaining to middle-skills workers
- Develop understanding of total costs of job openings and turnover
- Conduct workforce planning to identify strategically relevant middle-skills capabilities; avoid “just-in-time” hiring
- Use in-depth apprenticeship programs to pre-qualify candidates and cultivate interest
- State skills requirements clearly to educators and intermediaries, in partnership with other employers
- Identify core capabilities, not merely technical qualifications

EDUCATORS

- Forge supply-chain partnerships with employers
- Invest in reliable job market information
- Shift resources to reflect the current job market and emerging trends
- Broaden curriculum to incorporate soft skills
- Focus on career lifetime value and ladders of advancement

POLICYMAKERS

- Invest in state-of-the-art information systems about the job market
- Support SME’s
- Encourage collaboration between companies
- Identify and propagate proven models
- Remove barriers to innovation
- Align agencies around job creation
- Embrace middle-skills jobs publicly



FURTHER RESOURCES

- www.hbs.edu/competitiveness
 - 2013–14 alumni survey report
 - Report on middle-skills gaps, with Accenture and Burning Glass (November 2014)
- White paper on supply-chain thinking in talent pipeline management, with U.S. Chamber of Commerce (Nov. 19, 2014)

