

The Economic Value of Liberal Education

Prepared for the Presidents' Trust

by

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Revised, 2016 edition



The World is Demanding More

There is a demand for greater **numbers** of college educated workers.

There is a demand for **engaged and informed citizens**, who are knowledgeable about themselves and the world.

There is also a demand that those educated workers and citizens have higher levels of **learning and knowledge, and some new and different skills and abilities.**

Why Is There a Need for Higher Levels of Learning?

- In a globalized knowledge economy, the capacity to drive innovation is the key strategic economic advantage
- Rapid scientific and technological innovations are changing the workplace and demanding more of all employees
- Global interdependence and complex cross-cultural interactions increasingly define modern society and the workplace and call for new levels of knowledge and capability

Employers Continue to Raise the Bar and Hire for Innovation

- 95% of employers “put a priority on hiring people with the intellectual and interpersonal skills that will help them contribute to innovation in the workplace”
- 93% of employers say that they are asking employees to “take on more responsibilities and to use a broader set of skills than in the past”
- 95% of employers say that “a candidate’s demonstrated capacity to think critically, communicate clearly, and solve complex problems is more important than their undergraduate major”
- 91% of employers say that “the challenges their employees face are more complex than they were in the past.”

Source: “It Takes More Than a Major: Employer Priorities for College Learning and Student Success” (Hart Research Associates, 2013)

US Economy Defined by Greater Workplace Challenges and Dynamism

- Every year, more than 1/3 of the entire US labor force changes jobs.
- Today's students may have between 10-14 jobs by the time they are 38.
- 50% of workers have been with their company less than 5 years.
- Every year, more than 30 million Americans are working in jobs that did not exist in the previous quarter.

Source: U.S. Bureau of Labor Statistics

Key Capabilities Open the Door for Career Success and Earnings

“Irrespective of college major or institutional selectivity, what matters to career success is students’ development of a **broad set of cross-cutting capacities...**”

*Anthony Carnevale, Georgetown University
Center on Education and the Workforce*

What Employers Say

“My company lives and dies on our ability to innovate and to create the new products and processes that give us an edge in this very competitive global economy. ESCO needs people who have both a command of certain specific skills and robust problem-solving and communication skills.”

*Steven Pratt, CEO, ESCO Corp. and
Chair of the Oregon Business Council*

What Employers Say

“If the American economy is to recover from the Great Recession—and I believe that it can—it will be because of a ready supply of workers with the critical thinking, creative problem solving, technological, and communication skills needed to fuel productivity and growth.”

*Norm Augustine, former Chairman
and CEO, Lockheed Martin*

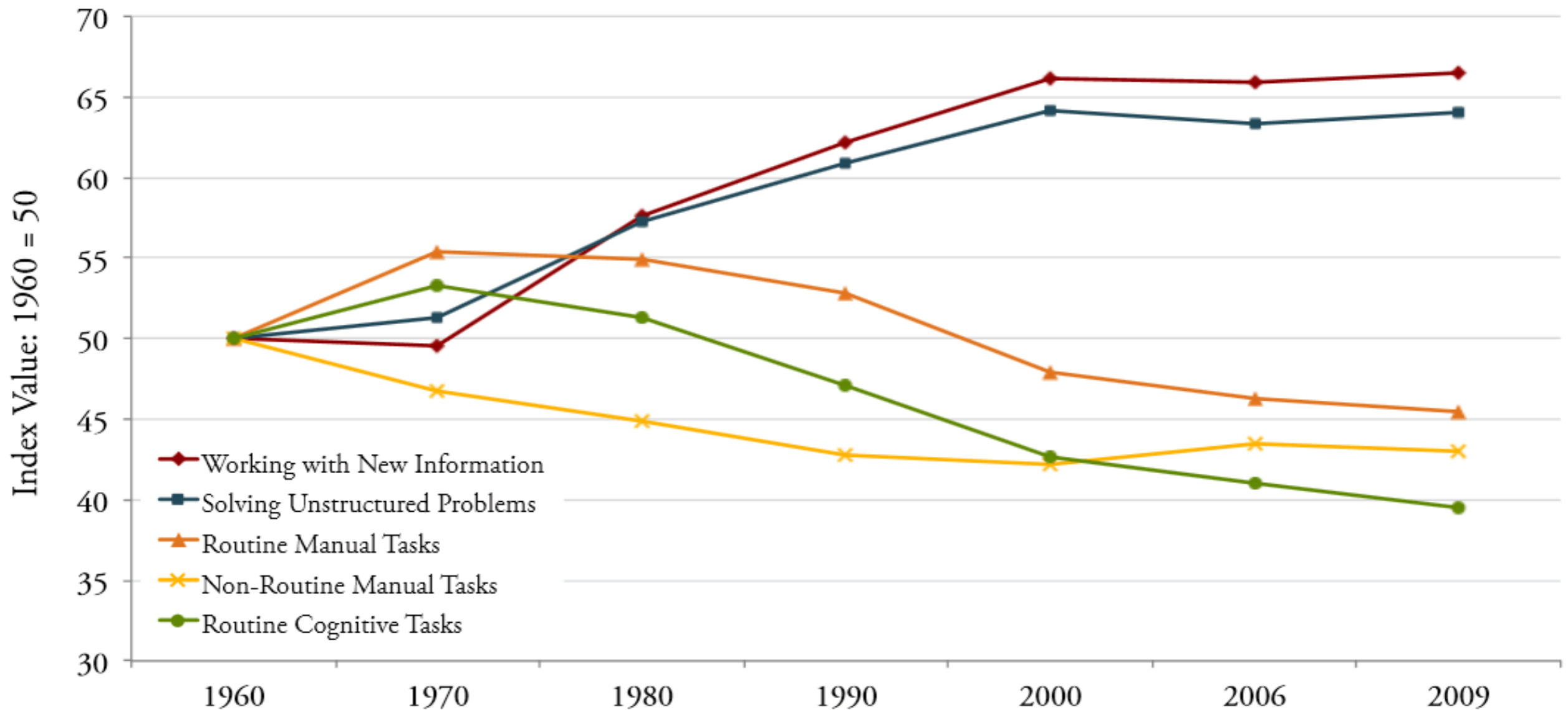
How Are Workplace Demands Changing?

“Human work will increasingly shift toward two kinds of tasks: **solving problems** for which standard operating procedures do not currently exist, and **working with new information**—acquiring it, making sense of it, communicating it to others....today, work that consists of following clearly specified directions is increasingly being carried out by computers and workers in lower-wage countries. The remaining jobs that pay enough to support families require a **deeper level of knowledge and the skills to apply it.**”

Frank Levy and Richard Murnane, *“Dancing with Robots”* (2013)

The Changing Workplace

Figure 3: Index of Changing Work Tasks in the U.S. Economy 1960-2009

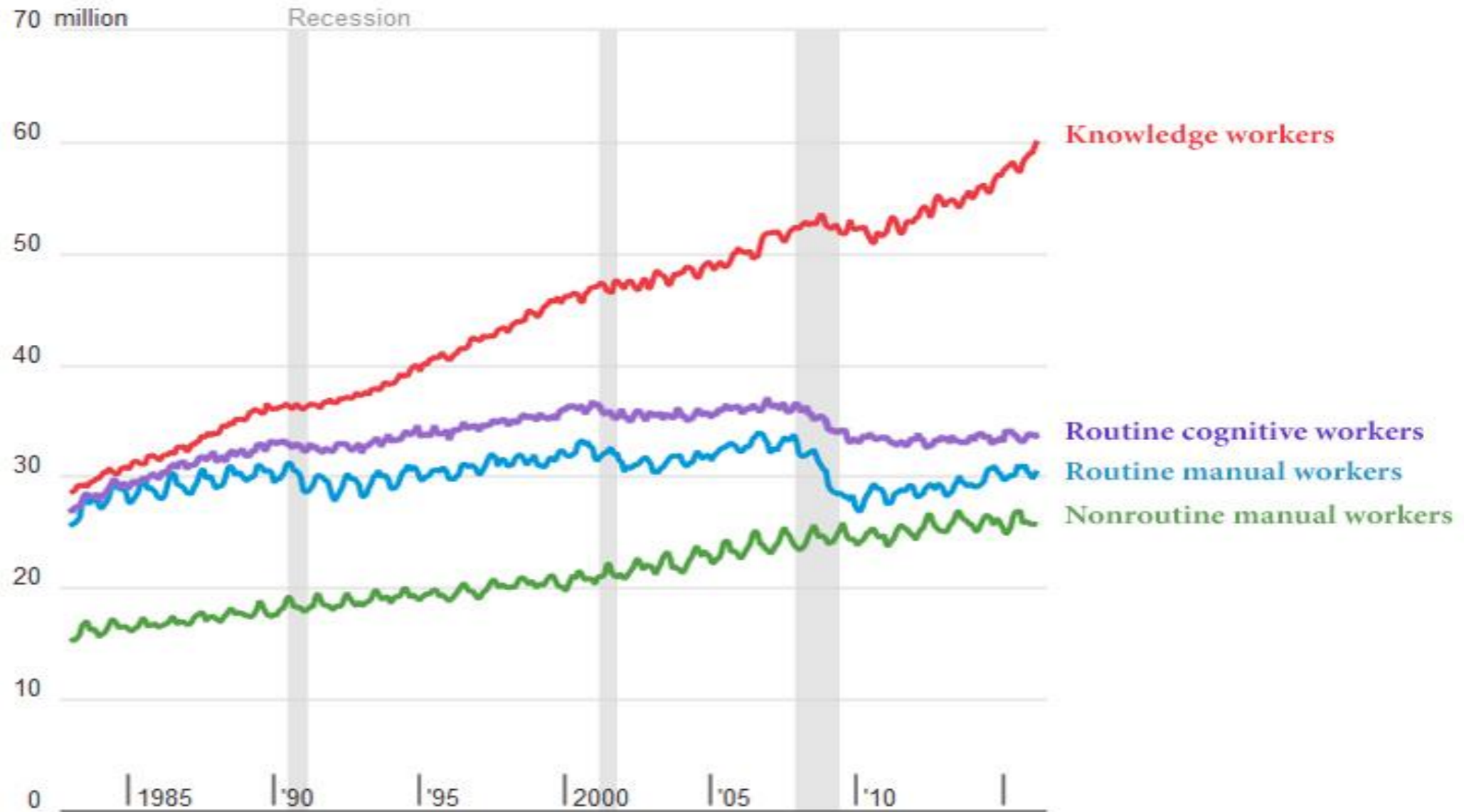


Source: *Dancing with Robots: Human Skills for Computerized Work*, by Frank Levy and Richard J. Murnane. Third Way, 2013.

Knowledge Workers Continue to Grow as Share of Overall Economy

The Rise of the Knowledge Worker

Workers are classified by whether their occupation is primarily cognitive or manual work, and whether or not the tasks are routine. Knowledge work is nonroutine cognitive work.



Source: Labor Department via St. Louis Fed

THE WALL STREET JOURNAL

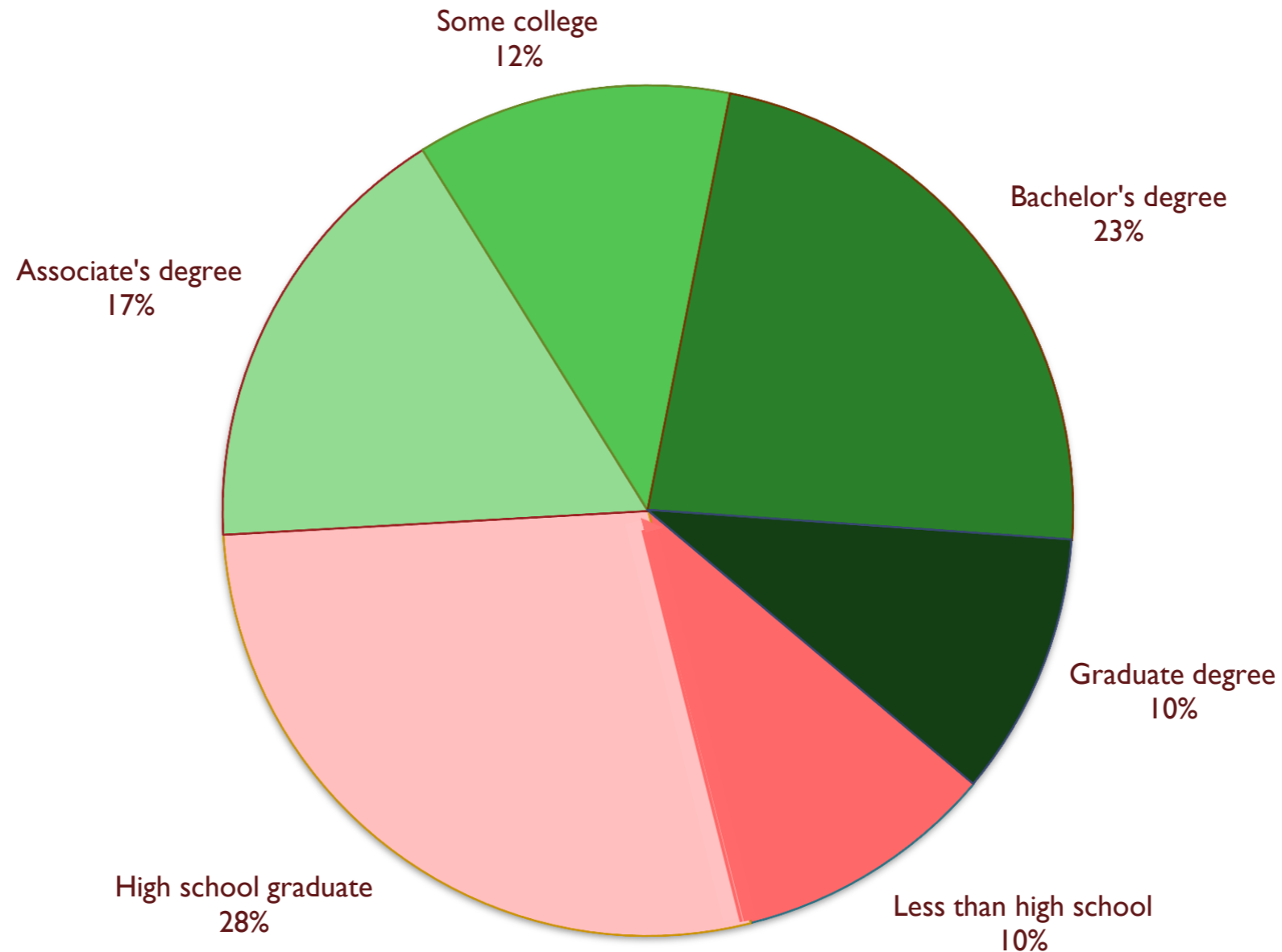
Source: "The Rise of Knowledge Workers Is Accelerating Despite the Threat of Automation," by Josh Zumbrun, *Wall Street Journal*, May 4, 2016

More College-Educated and Liberally Educated Workers are Needed but Supply is Not Keeping up with Demand

- Economists predict that by 2018, America will be 3 million college-educated workers short to meet demand, but college graduation rates are flat.
- By 2018, 22 million new and replacement jobs will require some college.
- By 2018, 63 percent of all jobs will require at least some postsecondary education.

Sources: Georgetown University Center on Education and the Workforce; AAC&U, *College Learning for the New Global Century* (2007); Lumina Foundation for Education

Education Requirements for Jobs, 2018

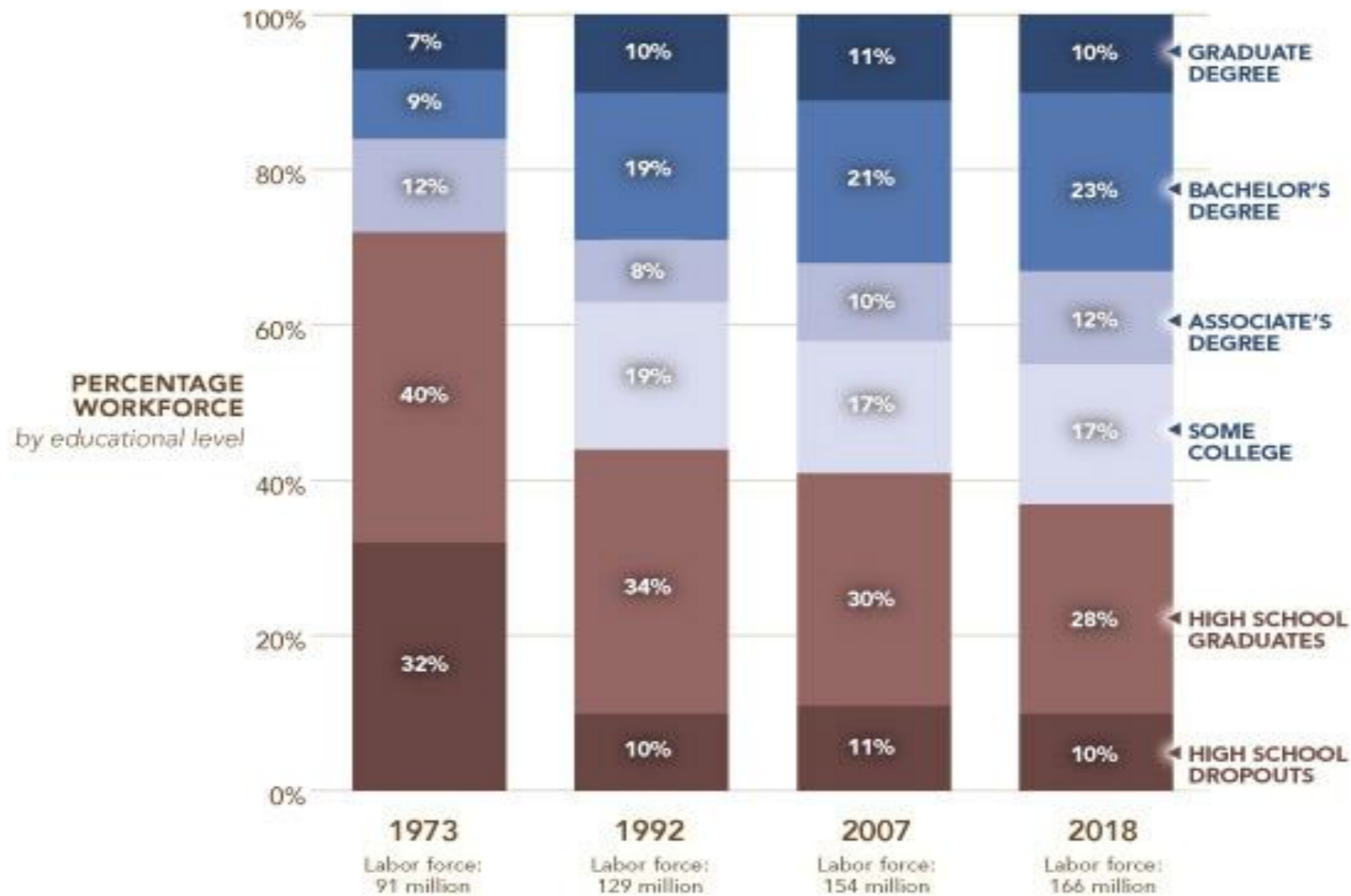


Georgetown University, Center on Education and the Workforce, 2010 p. 14 <http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/FullReport.pdf>

Taken, with permission, from "Meeting President Obama's 2020 College Completion Goal," a presentation given by Under Secretary Martha Kanter on July 21, 2011

Increasing Demand for Educated Workforce

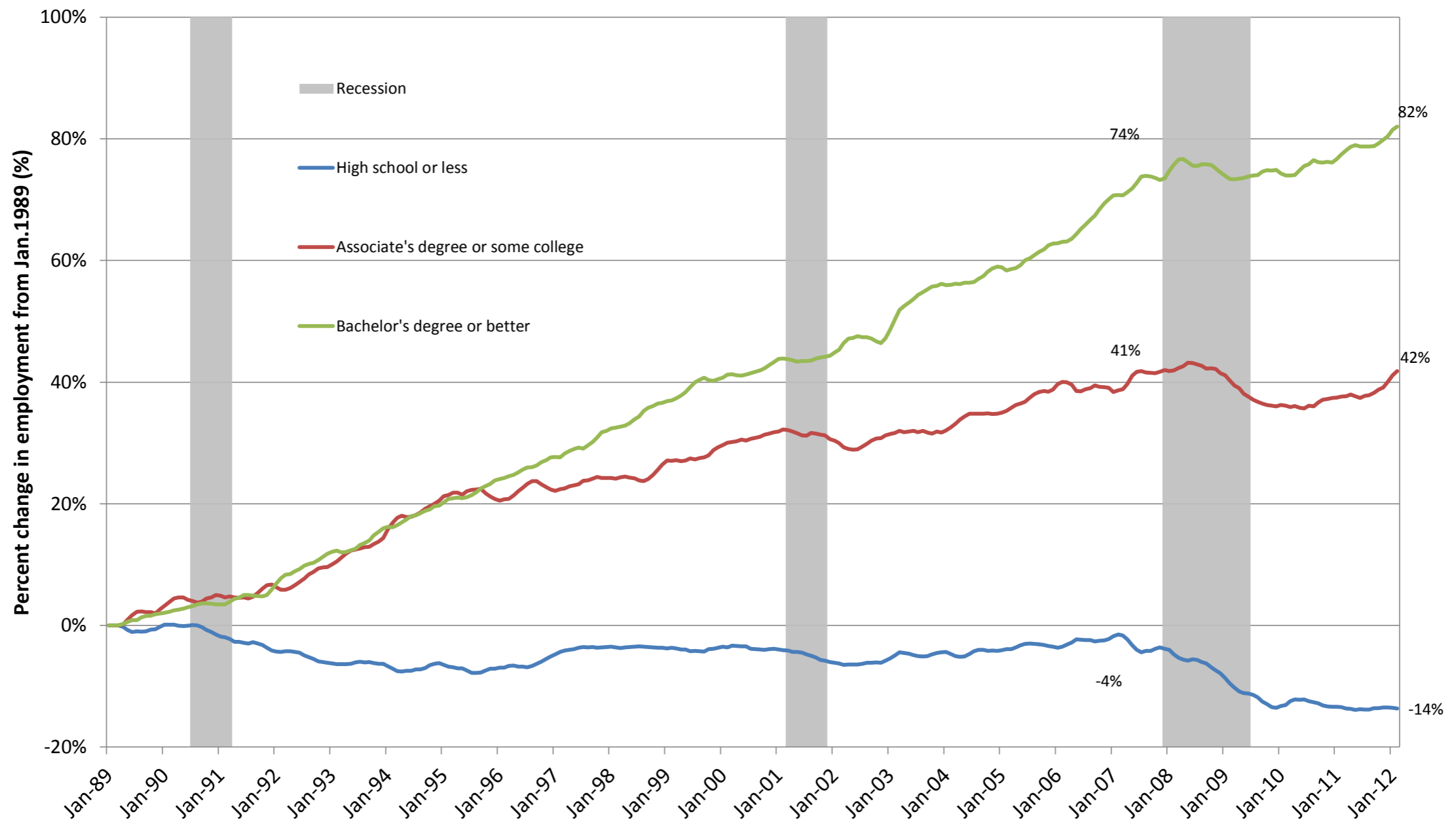
BY 2018, 30 MILLION NEW AND REPLACEMENT JOBS WILL REQUIRE SOME COLLEGE OR ABOVE



Note: **Brown** indicates jobs requiring high school or less and **Blue** indicates jobs requiring some college or more.

Source: Georgetown University Center on Education and the Workforce

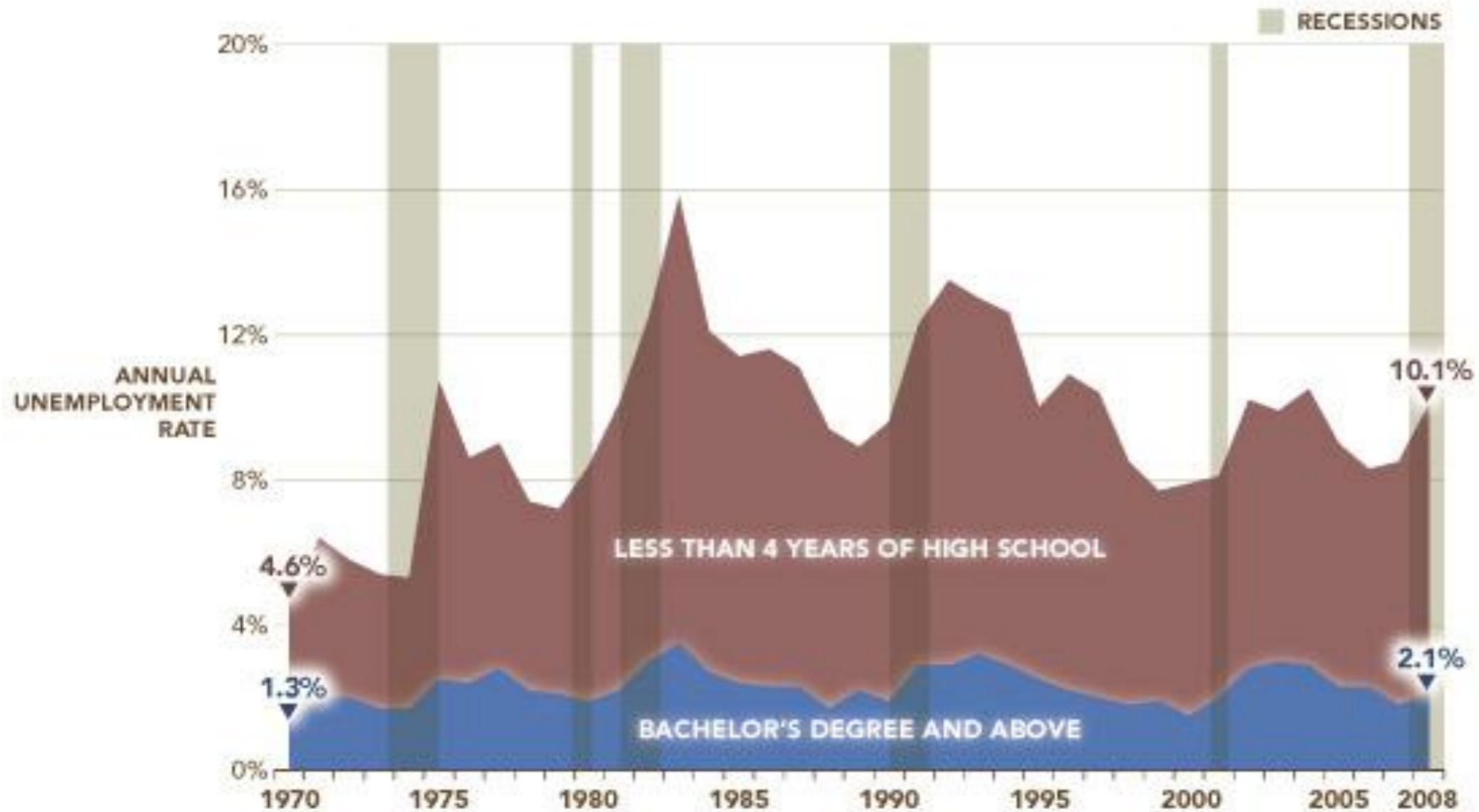
Employment Growth for 1989-2012 Dominated by Jobs Requiring College



Source: Carnevale, Anthony, Tamara Jayasundera, Ban Cheah (August 2012) "The College Advantage", Figure 5 (pg. 10).
 Authors' estimate of the Current Population Survey data (1989-2012). Employment includes all workers aged 18 and older.

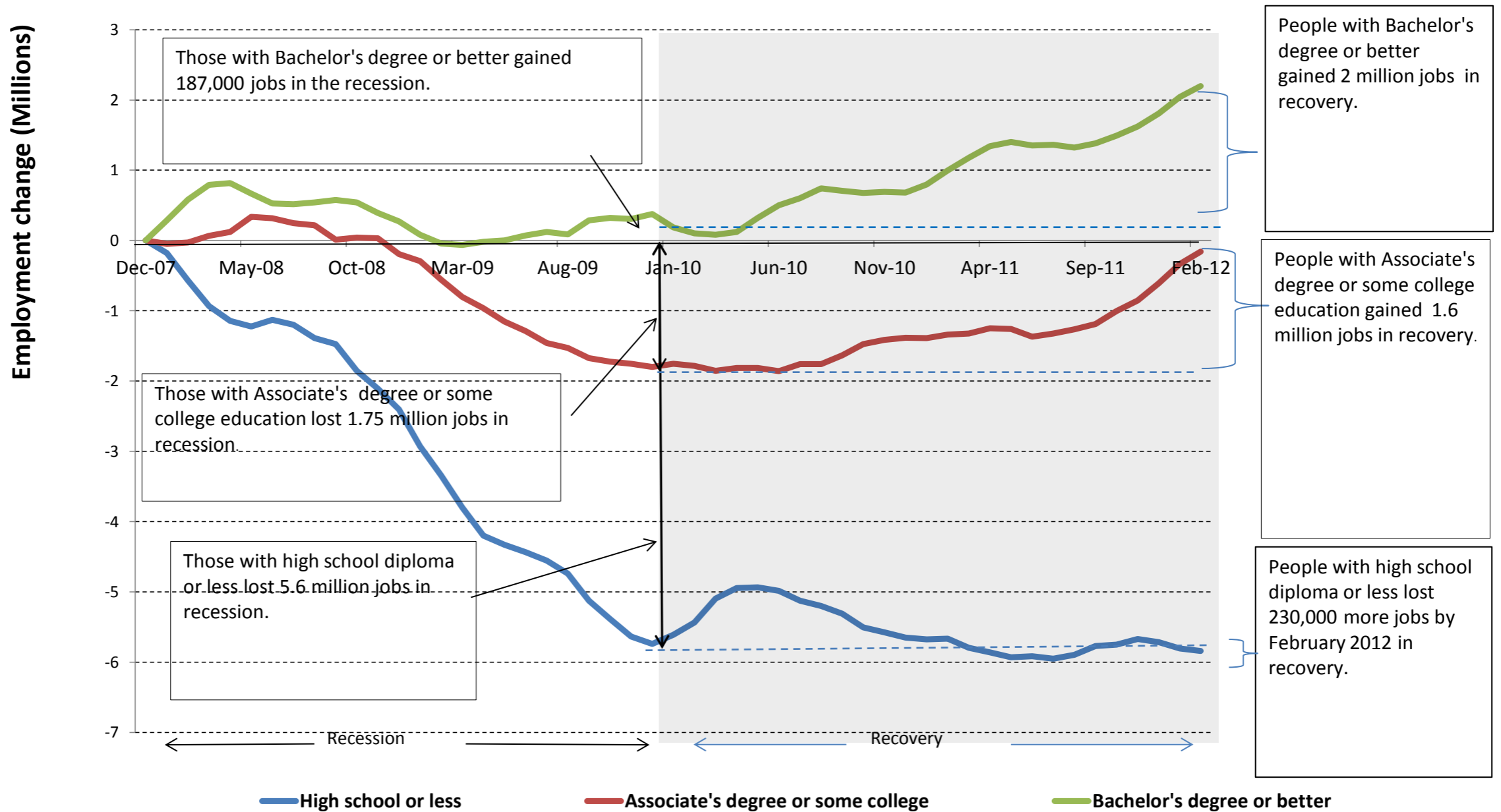
Education Provides an Umbrella: High School Dropouts Bear the Brunt of Unemployment

EDUCATION IS YOUR UMBRELLA



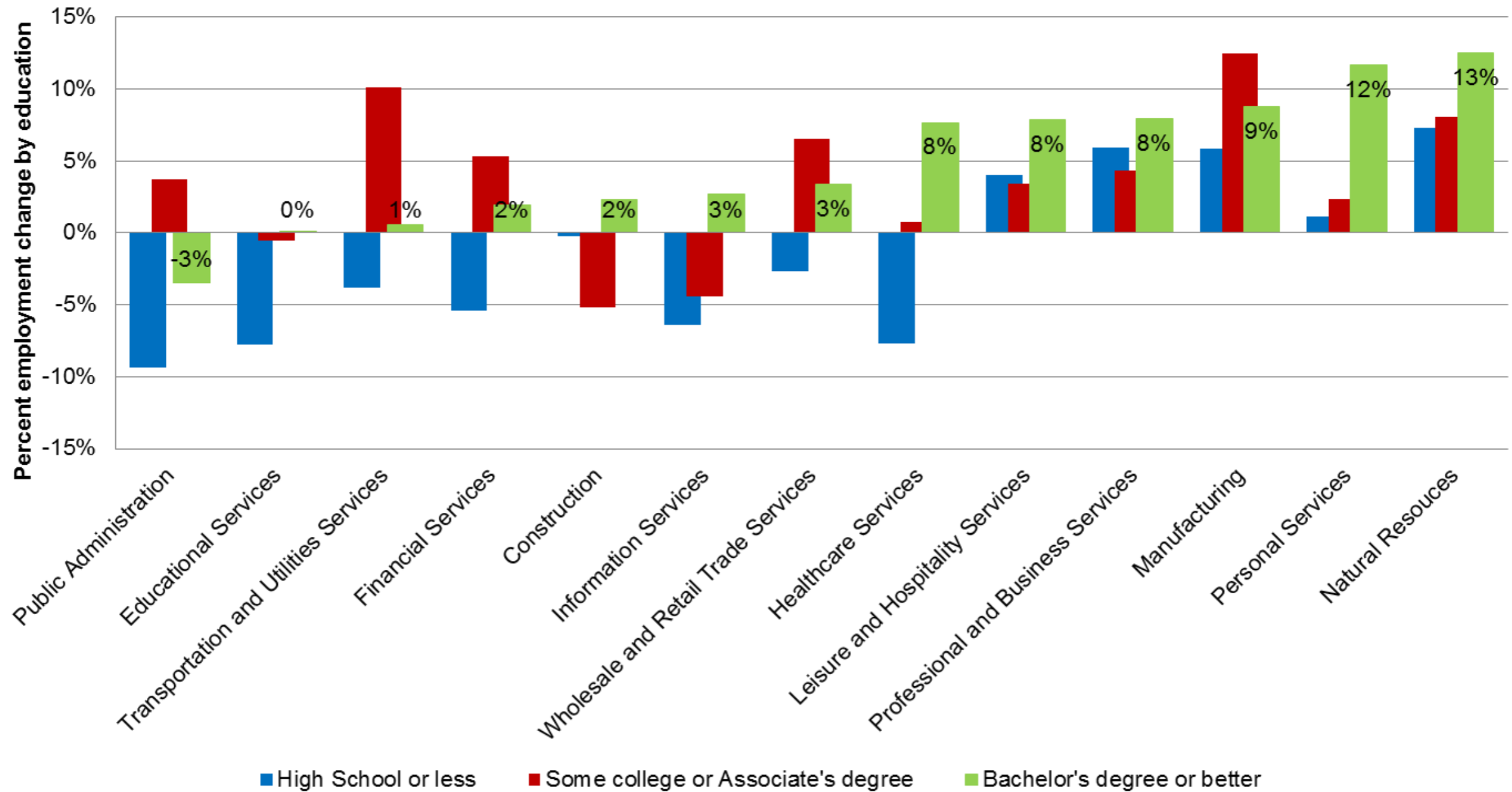
Source: Georgetown University Center on Education and the Workforce

The Great Recession: Job Gains in Recovery Dominated by Those Requiring College



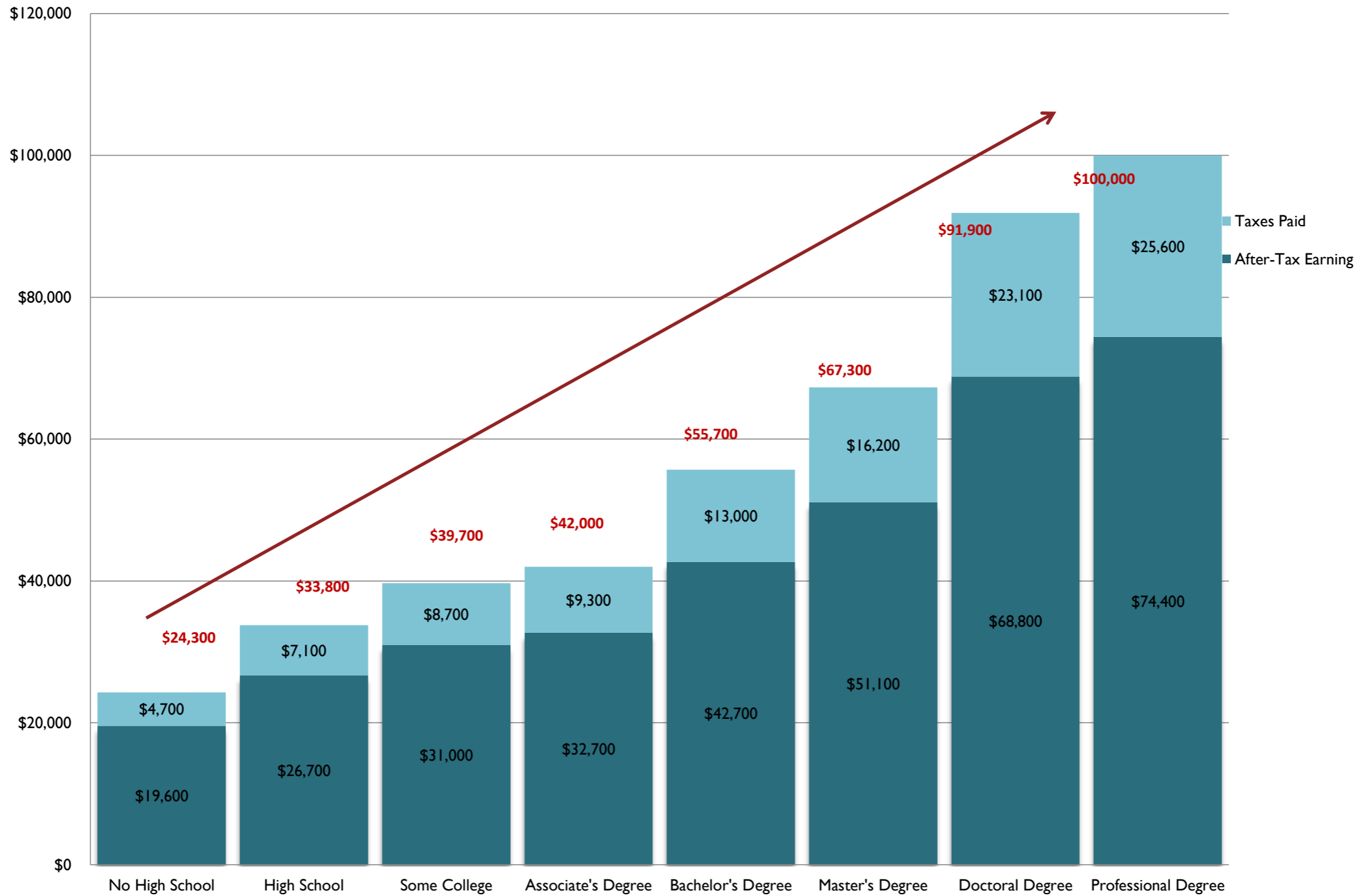
Source: Carnevale, Anthony, Tamara Jayasundera, Ban Cheah (August 2012) "The College Advantage", Figure 1 (pg.5).
 Authors' estimate of the Current Population Survey data (2007-2012). Employment includes all workers aged 18 and older.

Rising Demand for College-Level Skills: Across Industries, Requests for College-Level Skills Increases from 2010 to 2012



Source: Carnevale, Anthony, Tamara Jayasundera, Ban Cheah (August 2012) "The College Advantage", Figure 11 (pg. 19).
Authors' estimate of the Current Population Survey data (2007-2012). Employment includes all workers aged 18 and older.

Earnings & Tax Payments by Educational Attainment



Source: The College Board, Education Pays, 2010

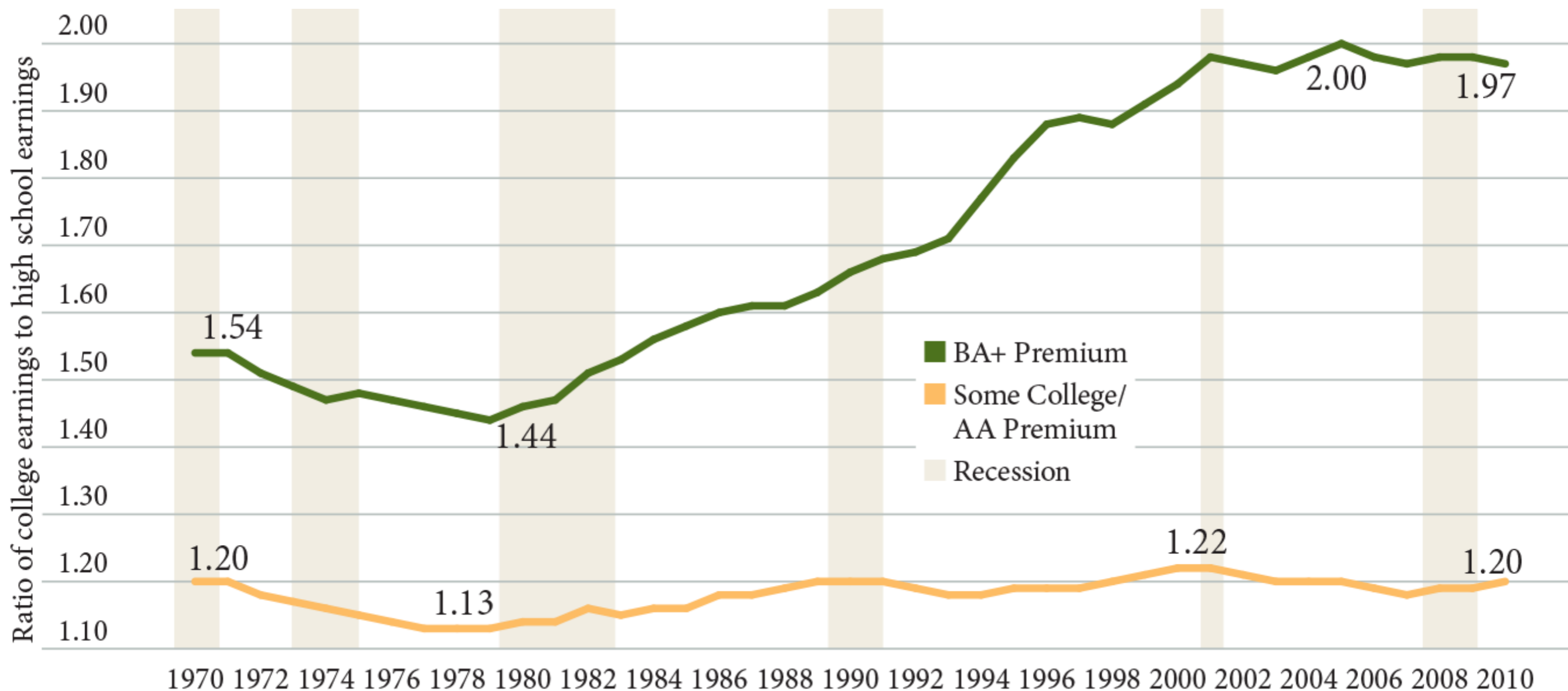
Taken, with permission, from "Meeting President Obama's 2020 College Completion Goal," a presentation given by Under Secretary Martha Kanter on July 21, 2011

The Wage Premium for College Graduates

“Americans with four-year college degrees made 98 percent more an hour on average in 2013 than people without a degree. That’s up from 89 percent five years earlier, 85 percent a decade earlier and 64 percent in the early 1980s.”

David Leonhardt, *“Is College Worth It? Clearly, New Data Say”* The New York Times (May 27, 2014)

The Wage Premium for College Persists



Source: Carnevale, Anthony, Tamara Jayasundera, Ban Cheah (2013)

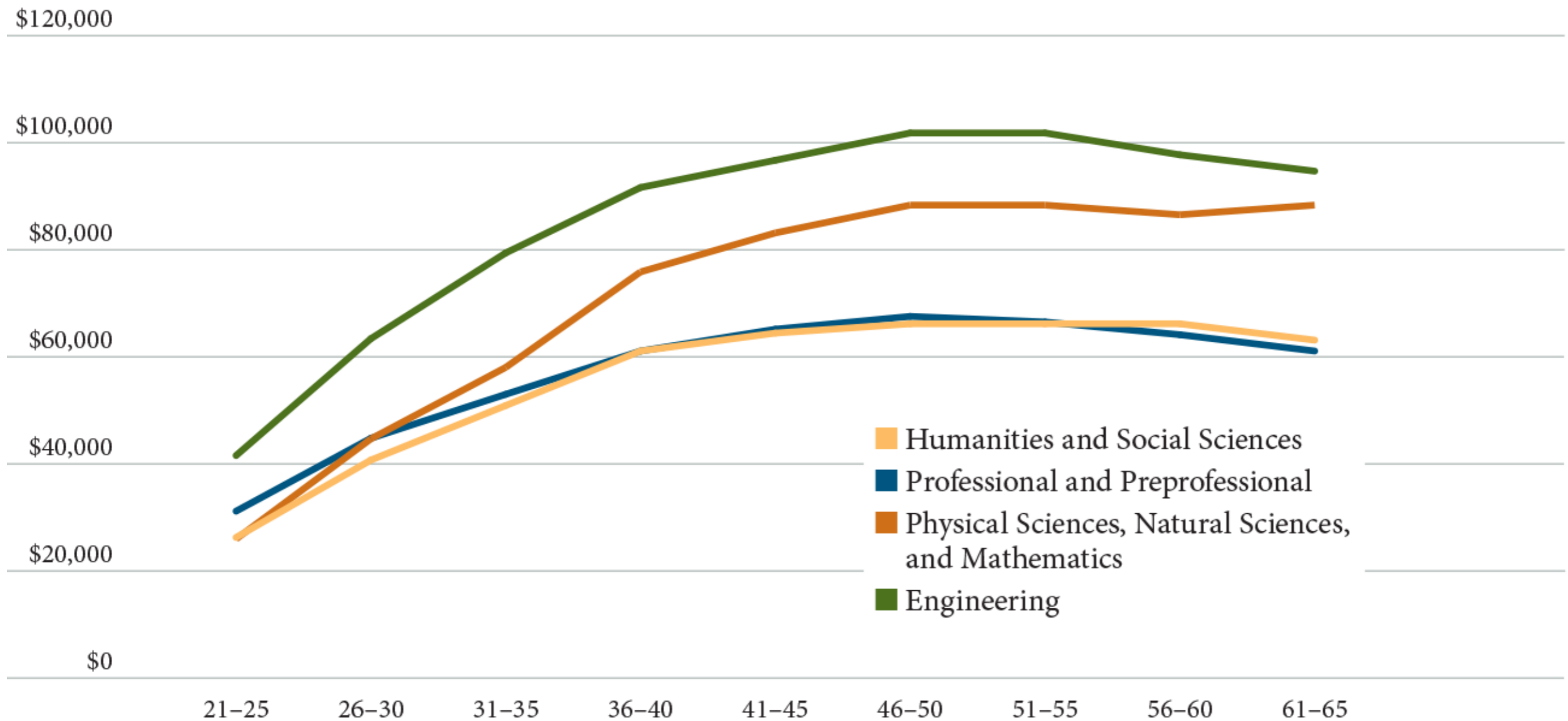
***College Degrees
Are a Good Investment
Regardless of Major***

The Cost of Attending College

“The average college graduate paying annual tuition of about \$20,000 can recoup the costs of schooling by age 40. After that, the difference between earnings continues such that the average college graduate earns over \$800,000 more than the average high school graduate by retirement age.”

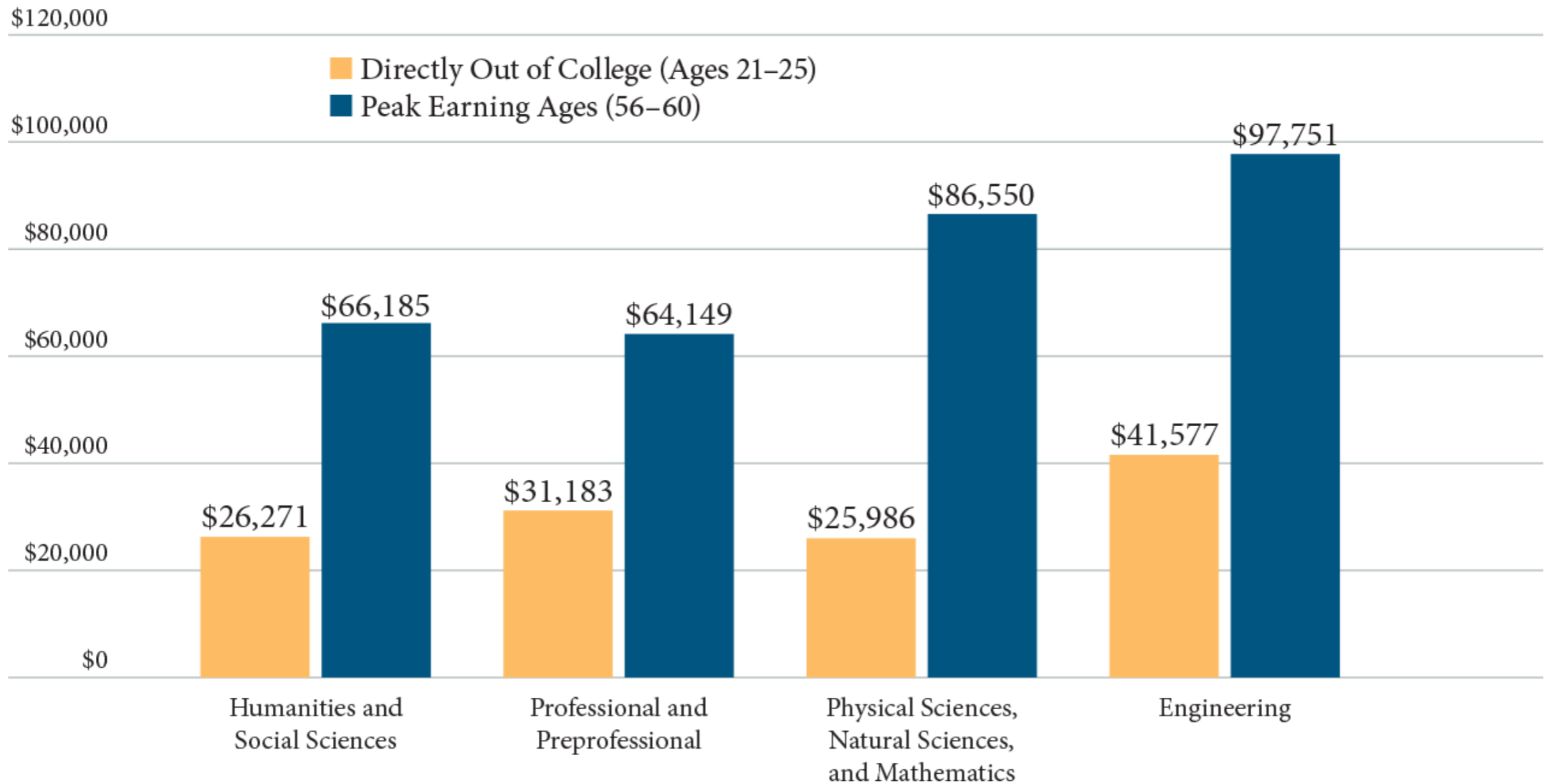
Mary C. Daly and Leila Bengali, *Is It Still Worth Going to College?* Federal Reserve Bank of San Francisco Economic Letter (April 21, 2014)

Median Annual Earnings by Age-Group and Undergraduate Major (2010-11)



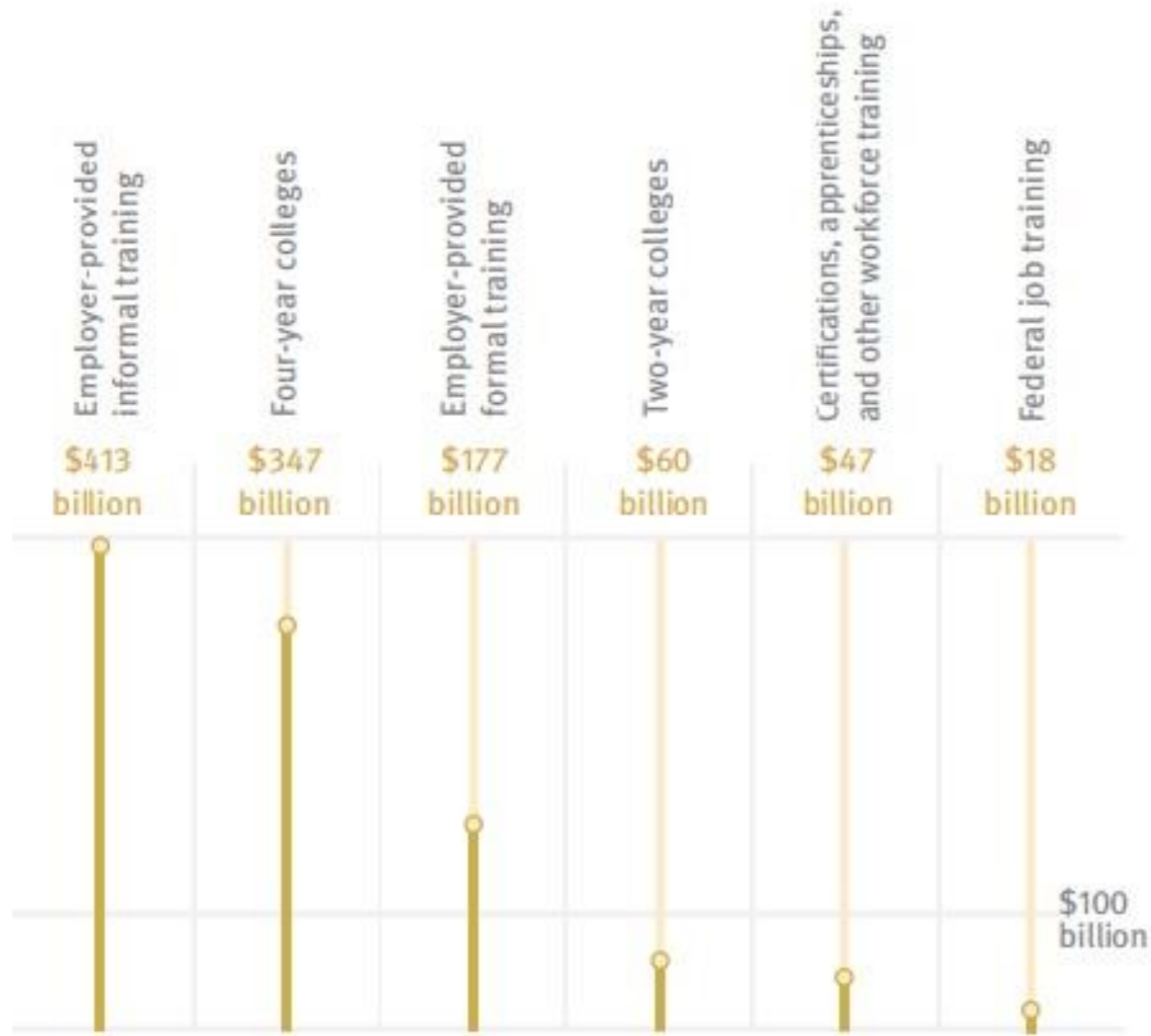
Source: Humphreys, Debra and Patrick Kelly. *How Liberal Arts and Sciences Majors Fare in Employment*. AAC&U. 2013

Short-Term vs. Long-Term Earnings (2010-11)



Source: *How Liberal Arts and Sciences Majors Fare in Employment*. 2013

U.S. Spending on Postsecondary Workforce Education and Training



Source: Carnevale, Anthony, Jeff Strohl, Artem Gulish (2015) "College is Just the Beginning," Figure 1 (pg.3).

***In a Knowledge Economy,
Liberal Education Has Become
the Key to American Capability
and Student Success***

Liberal Education & America's Promise



**AAC&U'S CENTENNIAL CAMPUS ACTION,
ADVOCACY, AND RESEARCH INITIATIVE**

“A COLLABORATION BETWEEN EDUCATORS AND EMPLOYERS”

Narrow Learning is Not Enough!

The LEAP Essential Learning Outcomes

- ***Knowledge of Human Cultures and the Physical and Natural World***
Focused on engagement with big questions, enduring and contemporary
- ***Intellectual and Practical Skills***
Practiced extensively across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance
- ***Personal and Social Responsibility***
Anchored through active involvement with diverse communities and real-world challenges
- ***Integrative and Applied Learning***
Demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems

***Employers Strongly Endorse the LEAP
“Essential Learning Outcomes”***

***And They Urge New Efforts to Help
All Students Achieve Them***

National Surveys of Employers on College Learning and Graduates' Work Readiness

AAC&U commissioned Hart Research Associates (in 2006, 2007, and in late 2009) to interview employers (C-level suite executives and, in 2009, additional human resource professionals) whose companies report that hiring relatively large numbers of college graduates

Findings are summarized in the following reports:

How Should Colleges Prepare Students to Succeed in Today's Global Economy? (2007)

How Should Colleges Assess and Improve Student Learning? Employers' Views on the Accountability Challenge (2008)

Raising the Bar: Employers' Views on College Learning in the Wake of the Economic Downturn (2010)

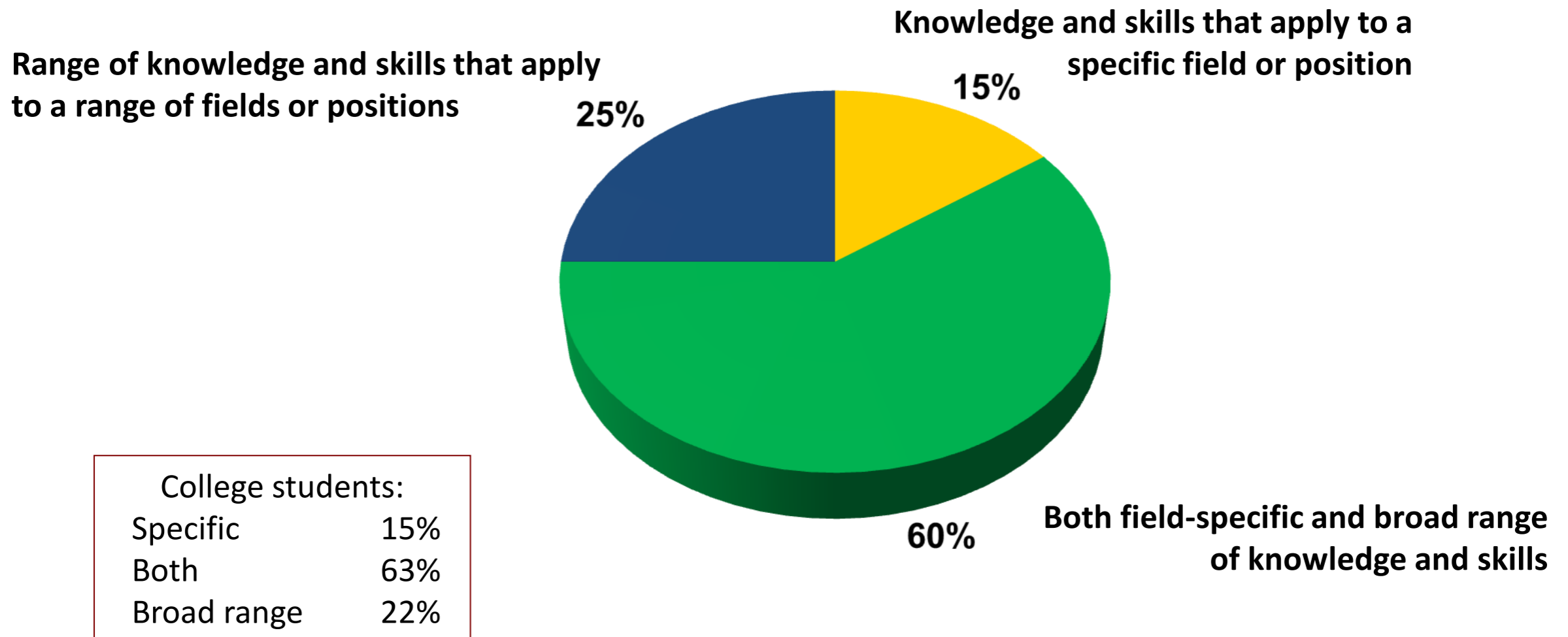
It Takes More Than a Major: Employer Priorities for College Learning and Student Success (2013)

Falling Short? College Learning and Career Success (2015)

See: <http://www.aacu.org/leap/public-opinion-research>

Balance of Broad Knowledge and Specific Skills Preferred

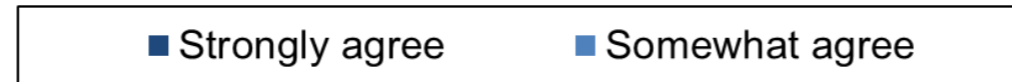
Which is more important for recent college graduates who want to pursue advancement and long-term career success at your company?



Source: "Falling Short? College Learning and Career Success" (Hart Research Associates, 2015)

Employers Are in Broad Agreement on College Learning Outcomes for All Students Regardless of Their Chosen Field of Study

Employers' agreement with statements about college learning aims regardless of student's chosen field of study



All college students should have educational experiences that teach them how to **solve problems with people whose views are different from their own**



Students/
total agree

94%

All college students should gain an **understanding of democratic institutions and values**



85%

Every college student should take courses that build the **civic knowledge, skills, and judgment** essential for contributing to our democratic society



86%

Every college student should acquire broad **knowledge in the liberal arts and sciences**



83%

All college students should gain **intercultural skills** and an understanding of societies and countries outside the United States

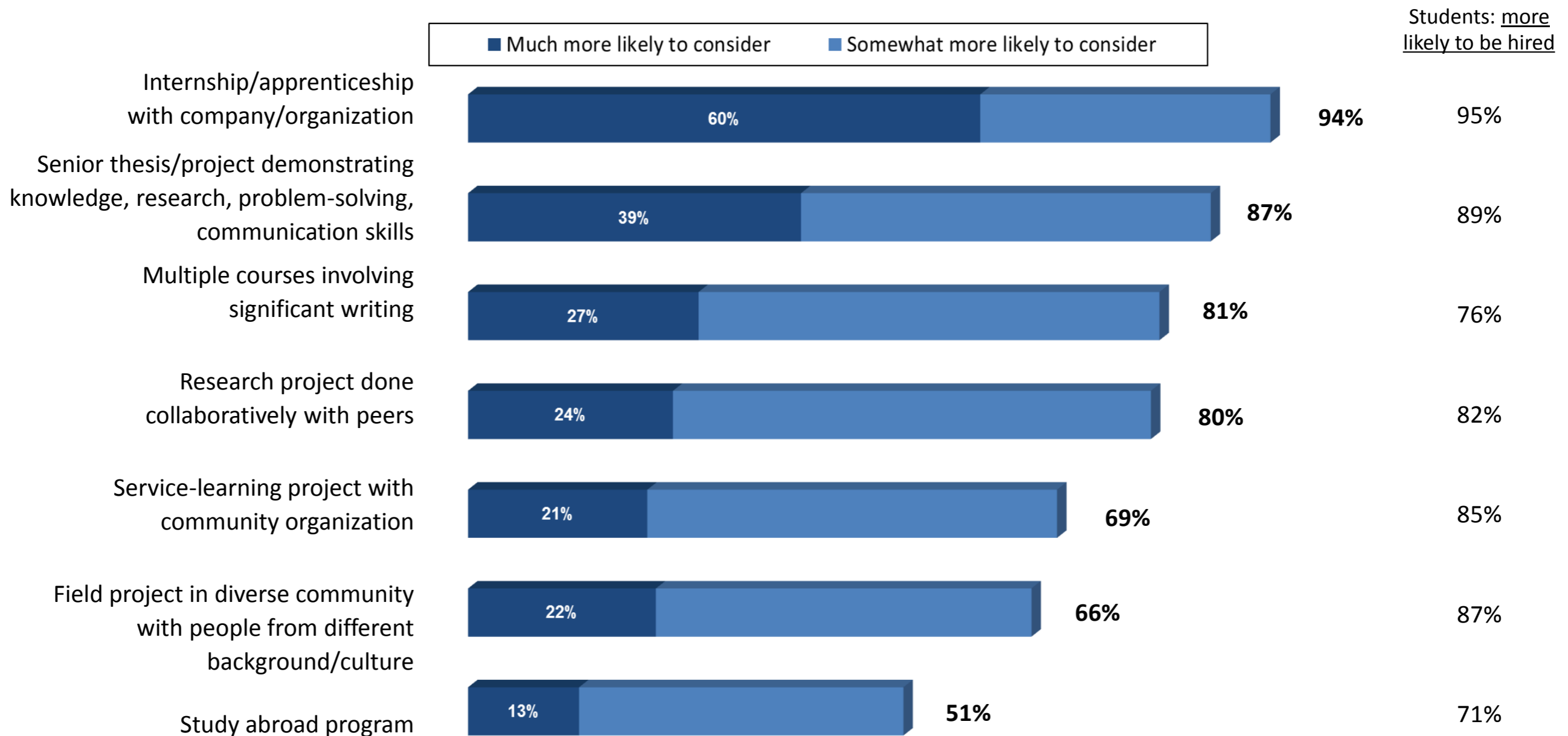


87%

Source: "Falling Short? College Learning and Career Success" (Hart Research Associates, 2015)

Employers Say They are More Likely to Consider Hiring Recent College Graduates Who Have Completed an Applied Learning or Project-Based Learning Experience.

How much more likely is your company to consider hiring recent college graduates if they have had this experience?

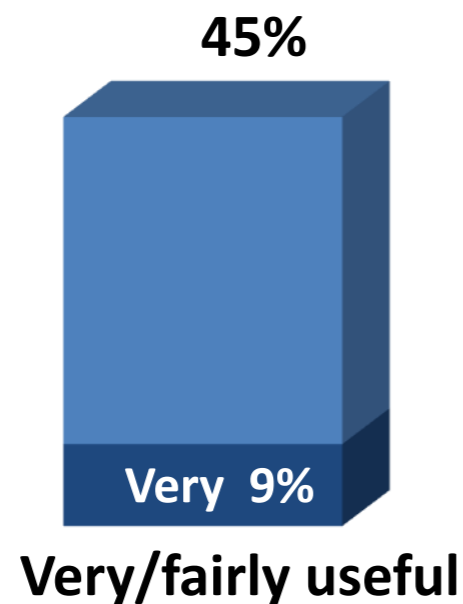


Source: "Falling Short? College Learning and Career Success" (Hart Research Associates, 2015)

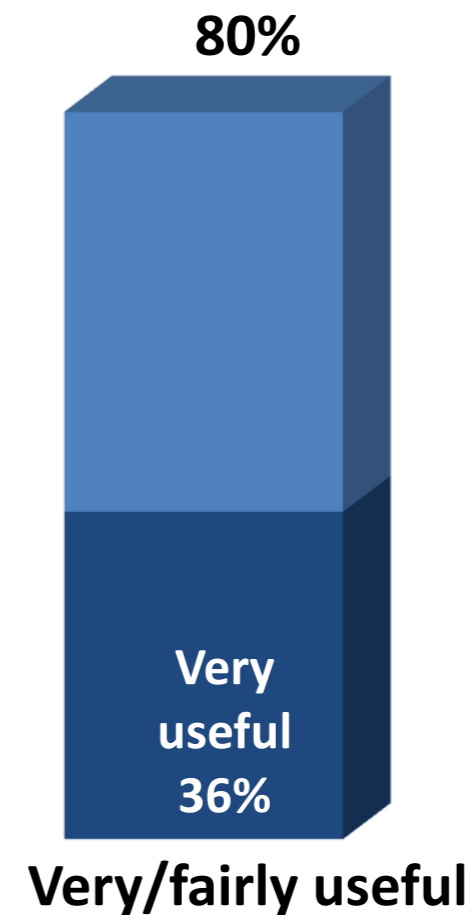
Most Employers Say They Would Find E-Portfolios Useful

Employers: How useful do you find/would you find this in helping you evaluate job applicants'/recent college graduates' potential to succeed at your company?

College transcript



Electronic portfolio of student work summarizing and demonstrating accomplishments in key skill and knowledge areas



Source: "Falling Short? College Learning and Career Success" (Hart Research Associates, 2015)

Learning Outcomes that at Least Four in Five Employers Rate as Very Important

*Proportions of employers rating each skill/knowledge area as very important for recent college graduates to have**

Students:
very important
for success
in workplace*

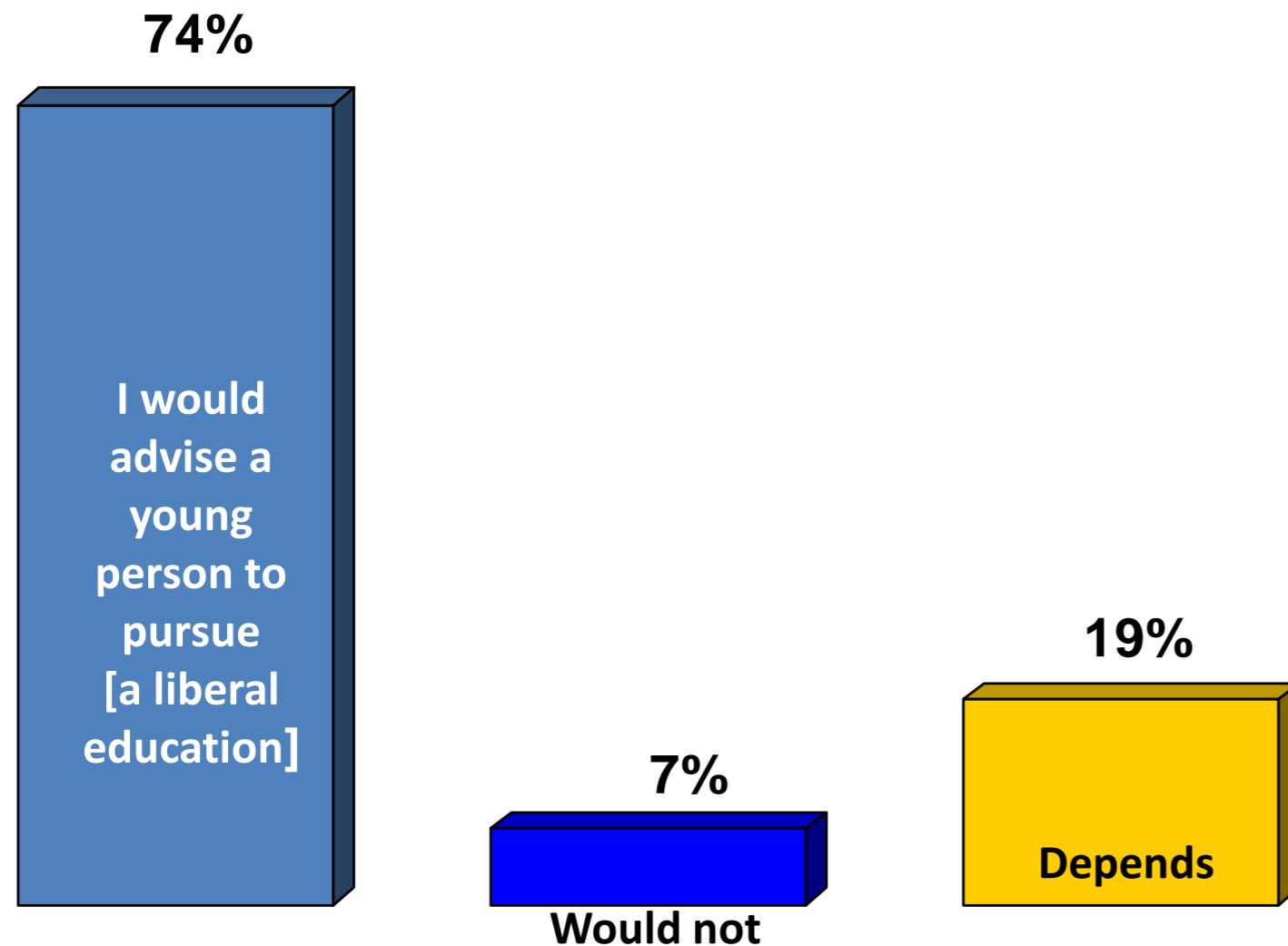


*8, 9, 10 ratings on zero-to-10 scale, 10 = very important

Source: "Falling Short? College Learning and Career Success" (Hart Research Associates, 2015)

Three in Four Would Recommend the Concept of a Liberal Education to Their Own Child or a Young Person They Know

If you were advising your child or a young person you know about the type of college education they should seek to achieve in order to achieve professional and career success in today's global economy, would you recommend they pursue an education like the one described below?



"This approach to a college education provides both broad knowledge in a variety of areas of study and knowledge in a specific major or field of interest. It also helps students develop a sense of social responsibility, as well as intellectual and practical skills that span all areas of study, such as communication, analytical, and problem-solving skills, and a demonstrated ability to apply knowledge and skills in real-world settings."

Source: "It Takes More Than a Major: Employer Priorities for College Learning and Student Success" (Hart Research Associates, 2013)

What Employers Say

“More big-picture thinking in the professions and more real-world application in the liberal arts and sciences.”

*Stephen H. Weiss (1935-2008)
Former Managing Director,
Neuberger Berman LLC*

Increasing Marketability for Liberal Arts Graduates

“By coupling a field-specific skill set with the soft skills that form the foundation of a liberal education, liberal arts graduates can nearly double the number of jobs available to them...These additional occupations offer a \$6,000 annual salary premium over the less-technical jobs traditionally open to liberal arts graduates.”

Skill sets that help liberal arts graduates: marketing, sales, business, social media, graphic design, data analysis, computer programming, IT networking.

Source: “The Art of Employment: How Liberal Arts Graduates Can Improve Their Labor Market Prospects,” Burning Glass Technologies, August 2013



Liberal Education and Career Success

Students should make sure their college education will help them develop these capabilities because the marketplace rewards graduates with the highest levels of achievement in these key learning outcomes.

Moreover, students who lack the hallmarks of a liberal education will not gain access to career paths that require and further develop these high level capabilities.

Source: Georgetown University Center for Education and the Workforce

College and Workplace Engagement

The odds of being engaged at work are:

2.6x Higher if ... [College] prepared me well for life outside of college.

2.4x Higher if ... [College] passionate about the long-term success of its students.

2.2x Higher if ... I had a mentor who encouraged me to pursue my goals and dreams.

2.0x Higher if ... I had at least one professor at [College] who made me excited about learning.

1.9x Higher if ... My professors at [College] cared about me as a person.

2.3x Higher if ... graduates experience all three

2.0x Higher if ... I had an internship or job that allowed me to apply what I was learning in the classroom.

1.8x Higher if ... I was extremely active in extracurricular activities and organizations while attending [College].

1.8x Higher if ... I worked on a project that took a semester or more to complete.

2.4x Higher if ... graduates experience all three

Source: *Great Jobs, Great Lives*, The 2014 Gallup-Purdue Index Report (pg. 10)

Higher Level Liberal Education Skills and Abilities

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Higher Wages

Data from Georgetown University
Center for Education and the Workforce

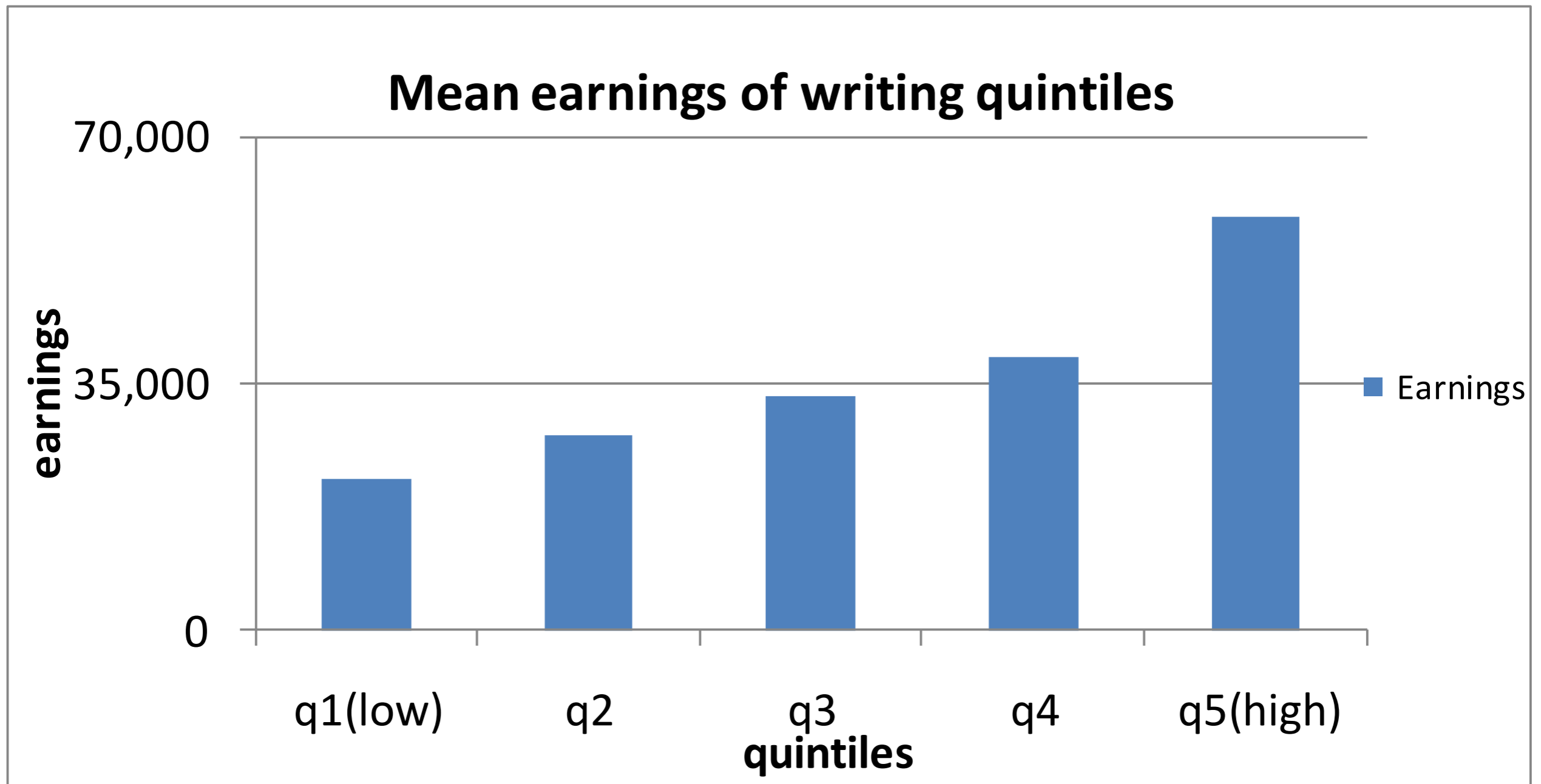
The Salary Premium for Liberal Education Outcomes

From a federal database analyzing qualifications for 1,100 different jobs, there is consistent evidence that the highest salaries apply to positions that call for intensive use of liberal education capabilities, including (random order):

- Writing
- Inductive and Deductive Reasoning
- Judgment and Decision Making
- Problem Solving
- Social/Interpersonal Skills
- Mathematics
- Originality

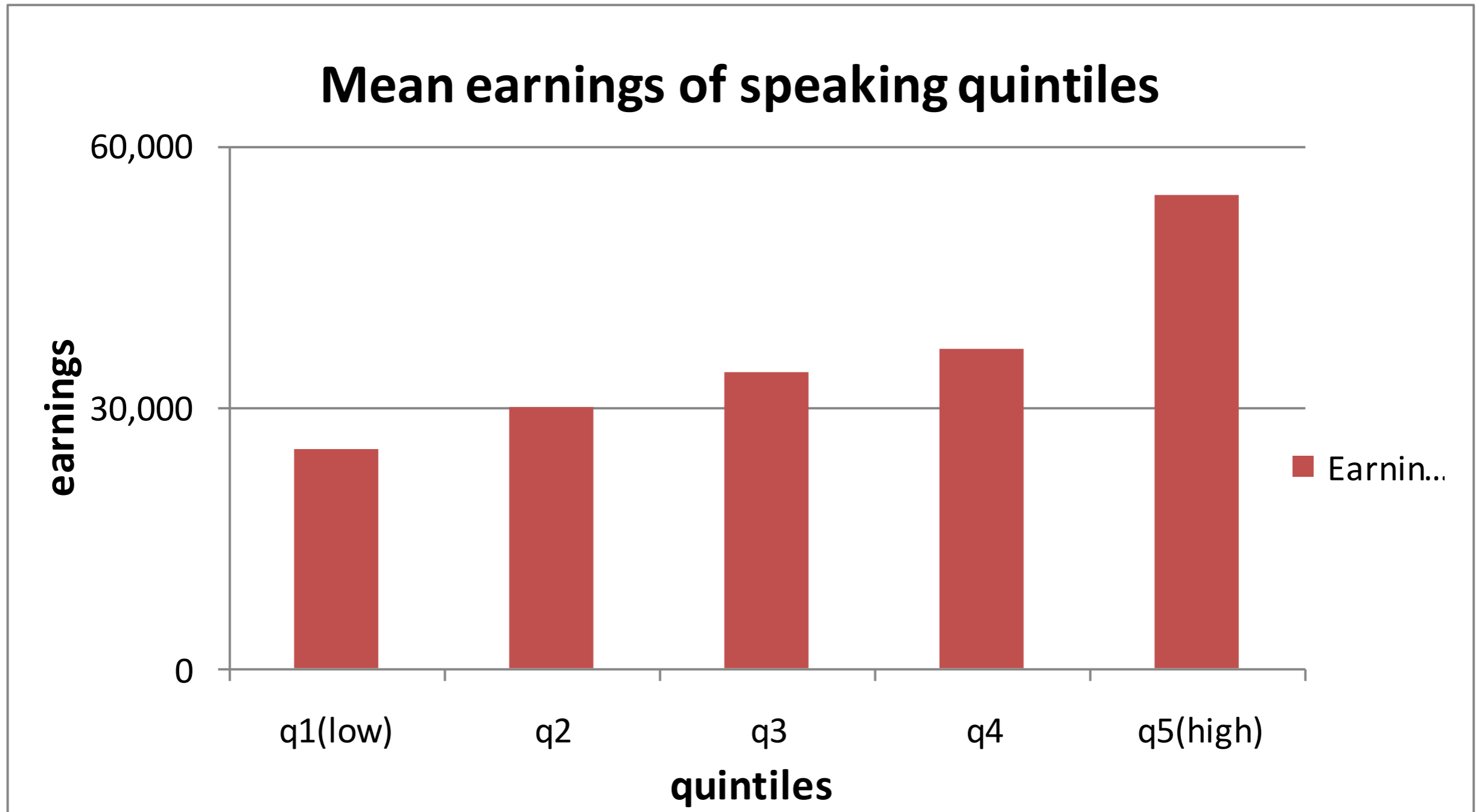
Source: Georgetown University Center on Education and the Workforce

Mean Earnings of Jobs that Emphasize Writing



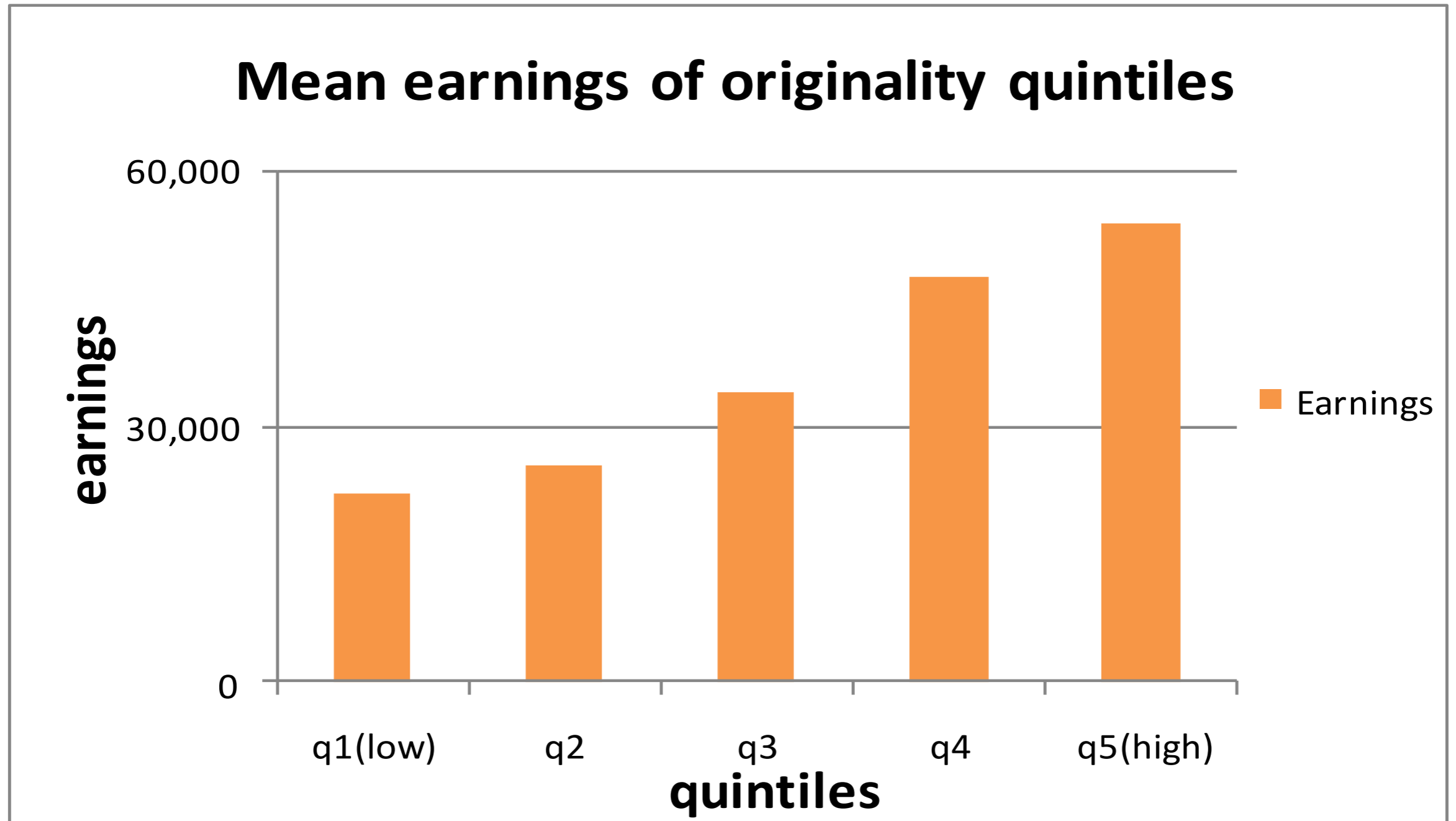
Source: Georgetown University Center for Education and the Workforce

Mean Earnings of Jobs that Emphasize Speaking



Source: Georgetown University Center for Education and the Workforce

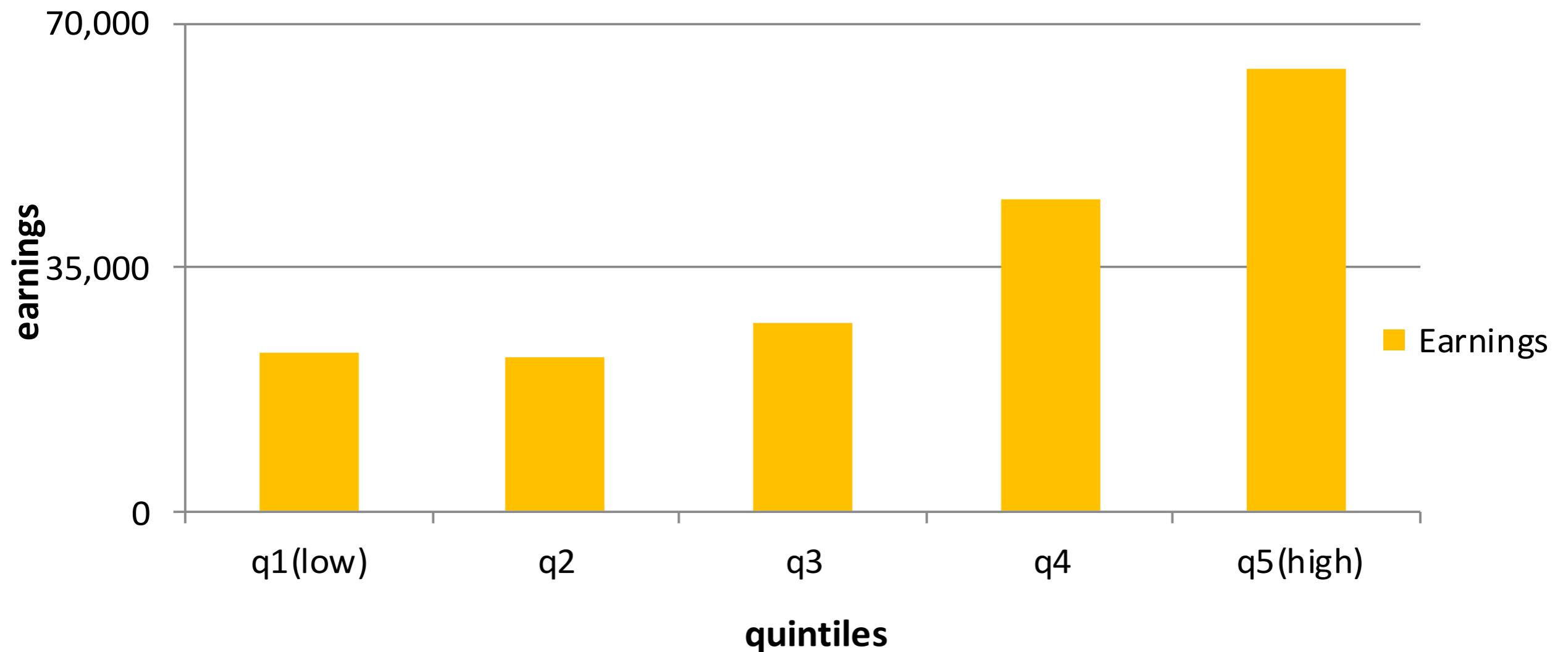
Mean Earnings of Jobs that Emphasize Originality



Source: Georgetown University Center for Education and the Workforce

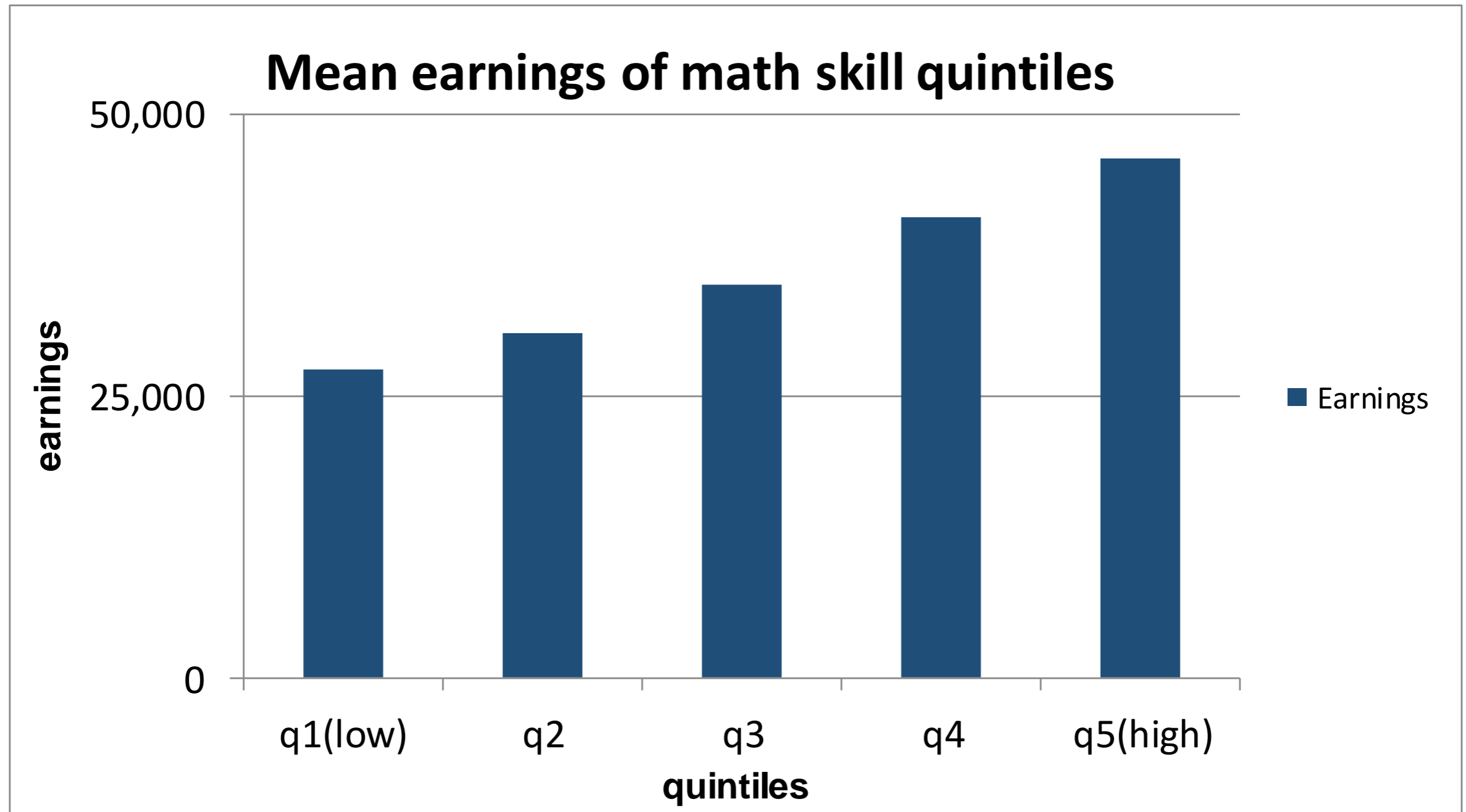
Mean Earnings of Jobs that Emphasize Judgment & Decision Making

Mean earnings of judgment and decision making quintiles



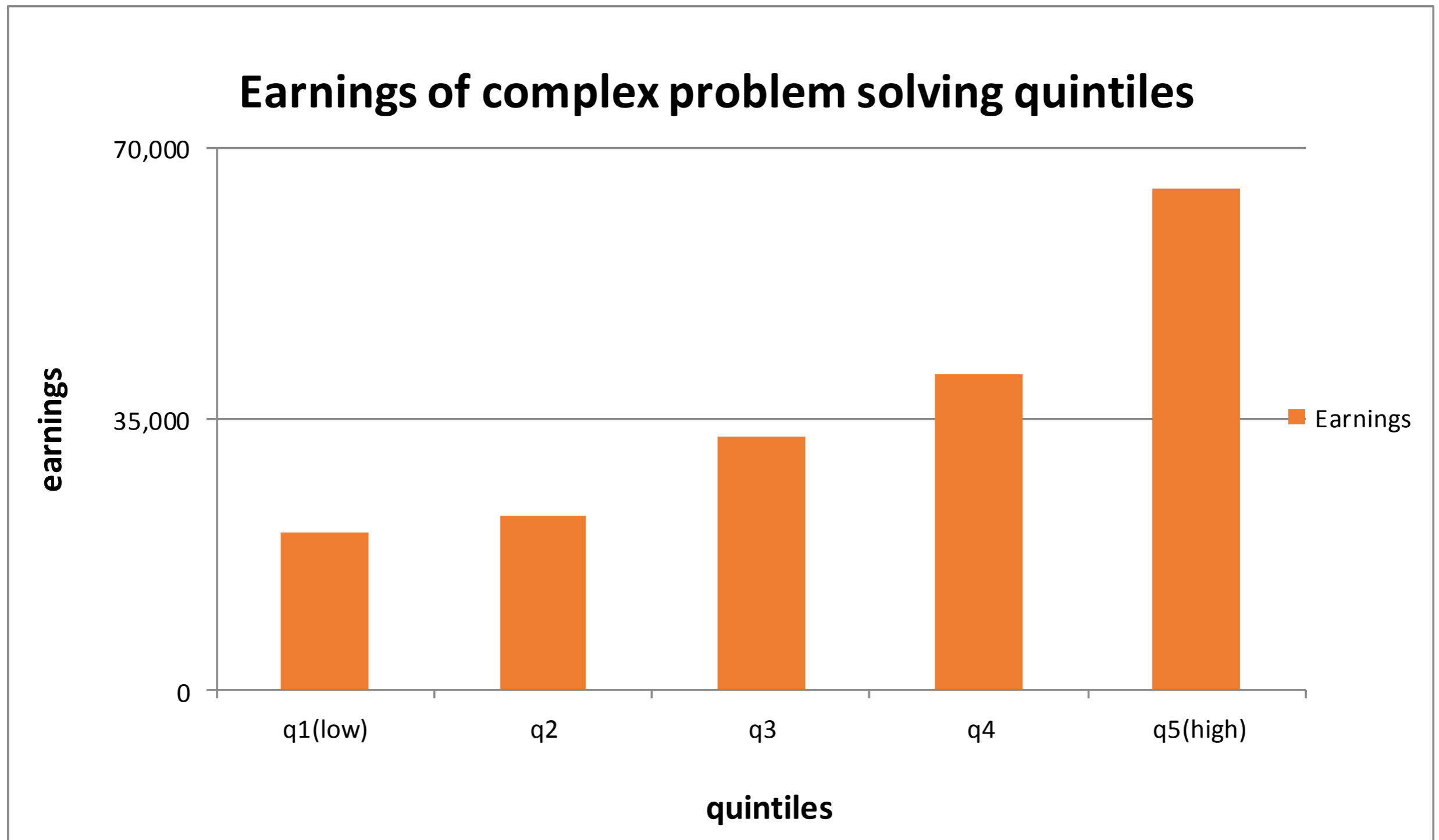
Source: Georgetown University Center for Education and the Workforce

Mean Earnings of Jobs that Emphasize Math



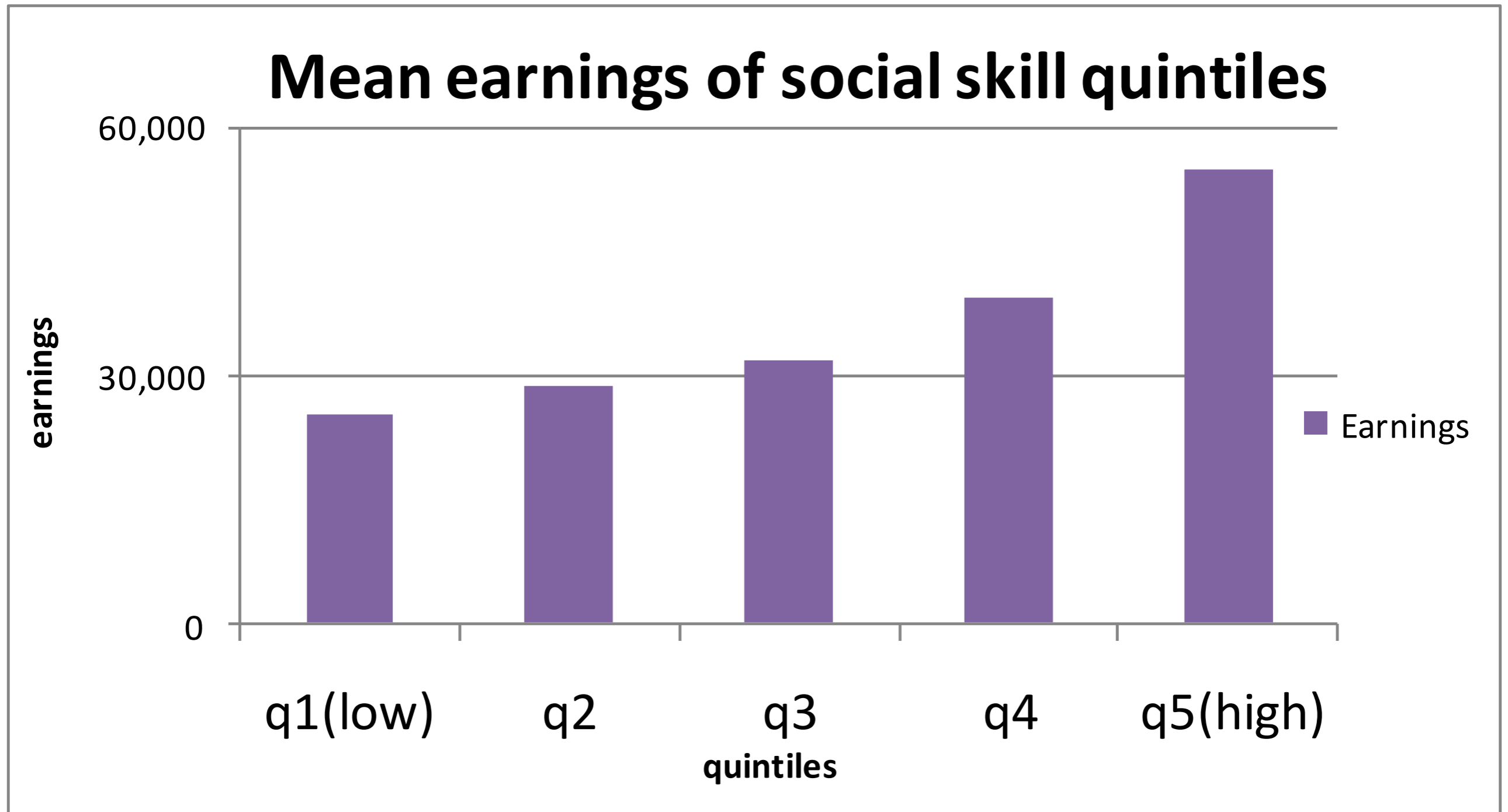
Source: Georgetown University Center for Education and the Workforce

Mean Earnings of Jobs that Emphasize Problem Solving



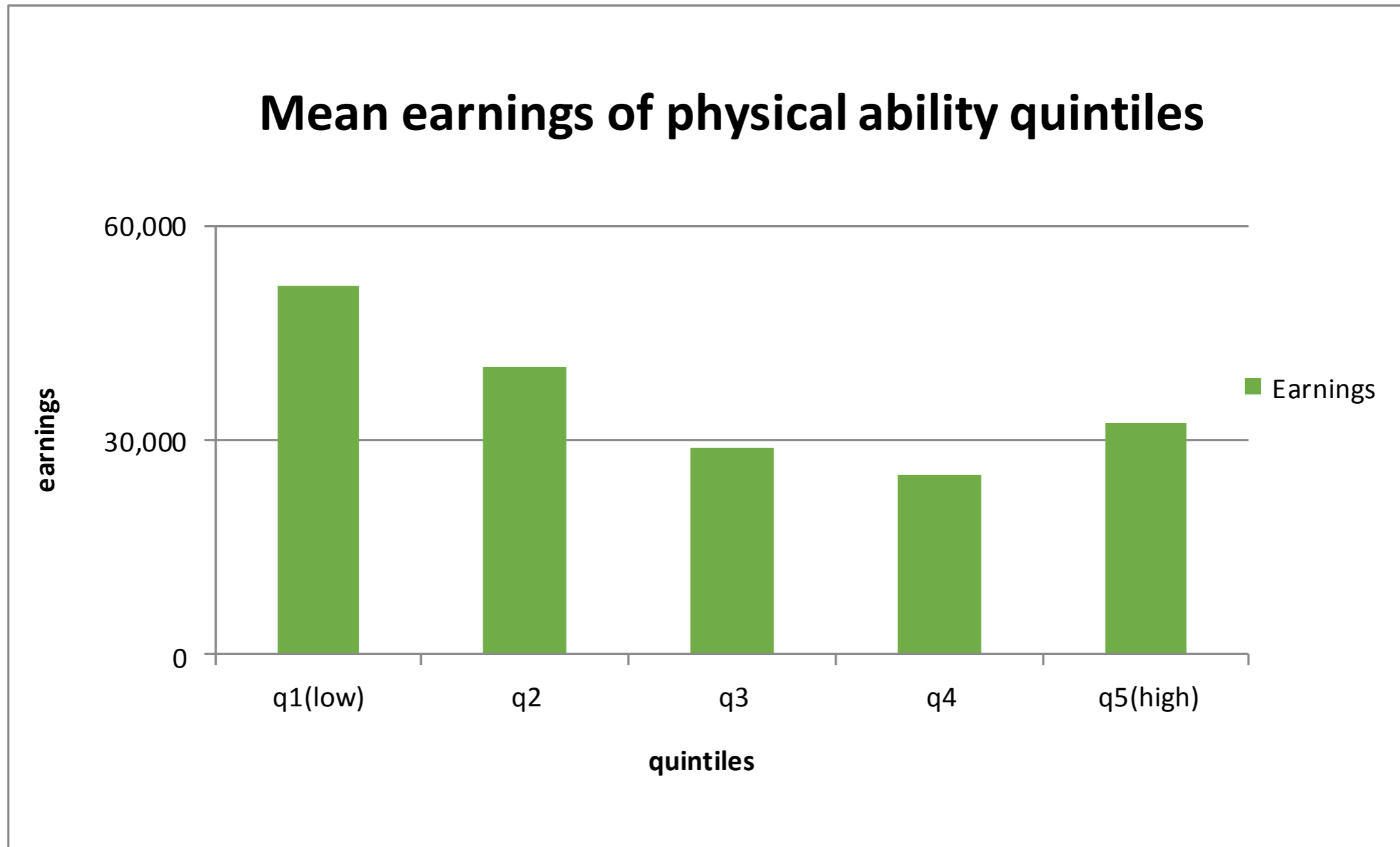
Source: Georgetown University Center for Education and the Workforce

Mean Earnings of Jobs that Emphasize Social Skills



Source: Georgetown University Center for Education and the Workforce

Mean Earnings of Jobs that Emphasize Physical Ability



Source: Georgetown University Center for Education and the Workforce

Markers of Liberal Education and American Capability

Evidence that Students Can Apply
Liberal Learning Outcomes to Complex,
Unscripted Problems and Real-World Settings

Priorities for Our Shared Future

- Higher achievement standards in K-12 education—college prep curriculum as default
- Increased access to higher education through greater awareness, preparation, financial aid, social and academic support
- Increased persistence and graduation rates in higher education
- Intentionality and focus on quality and the LEAP Essential Learning Outcomes in higher education and policy initiatives
- Tracking of results—not just graduation rates, but actual achievement of key learning outcomes

“In an economy fueled by innovation, the capabilities developed through a liberal education have become America’s most valuable economic asset.”

*College Learning for the New Global Century
(AAC&U, 2007)*

For full LEAP Report and the surveys on employers and recent graduates:

www.aacu.org/leap

For information from Georgetown University on education and the economy:

www.cew.georgetown.edu



Center on Education and the Workforce

