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KC/ATL-FED CONFERENCE ON WORKFORCE DEVELOPMENT:
**IMPLICATIONS OF CHANGES IN
THE STRUCTURE OF THE
ECONOMY**

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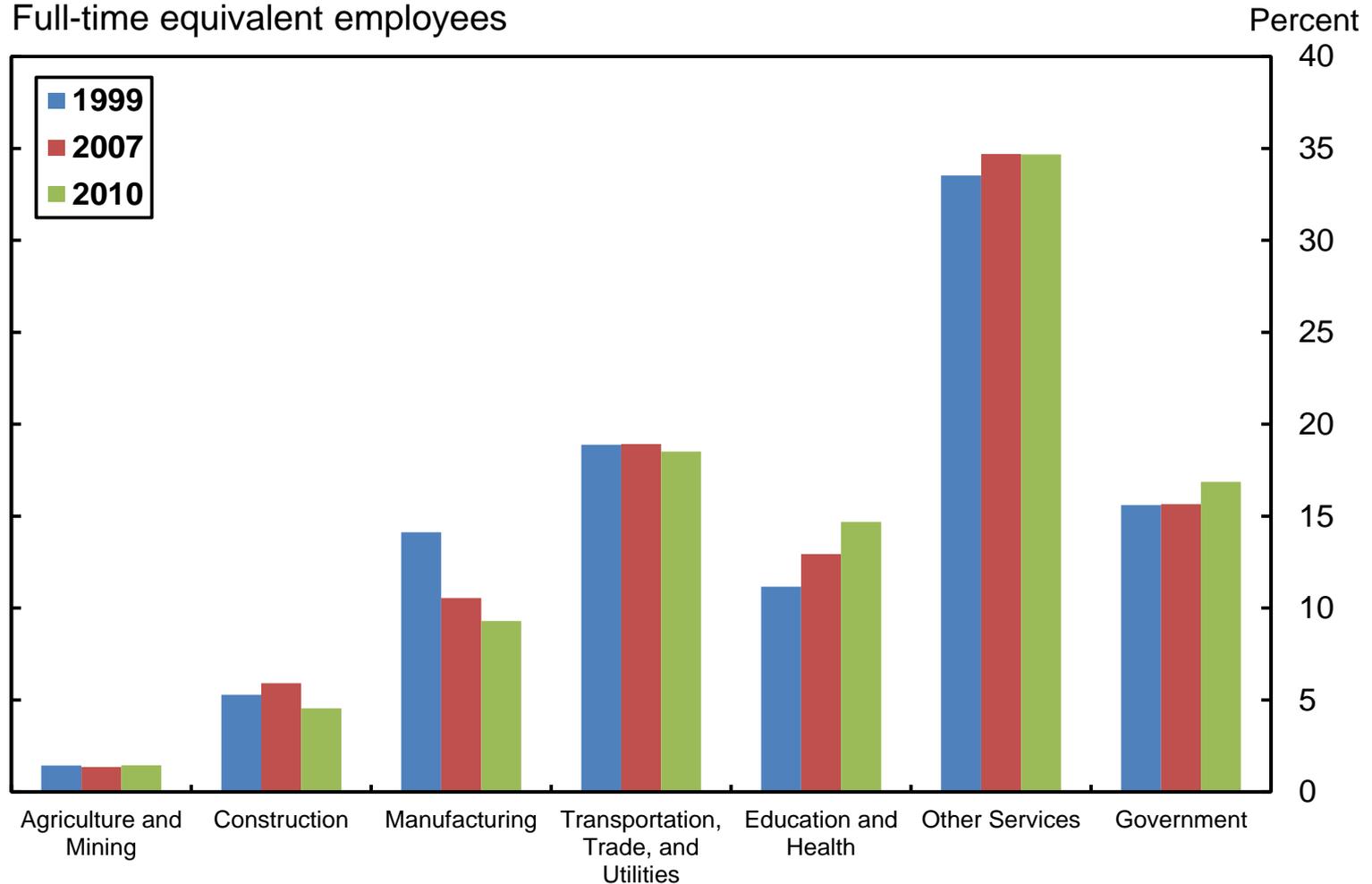
Change in structure of U.S. economy

SHIFT IN EMPLOYMENT TOWARDS SERVICES

Shift in employment towards services

Share of Total Employment

Full-time equivalent employees



Source: Bureau of Economic Analysis

Two main reasons for this shift

- **Productivity growth**

- Many things that used to be done by workers are now done by machines/computers/tools/etc.
- Baumol's paradox: Shift in employment towards sectors with lower productivity growth (services)

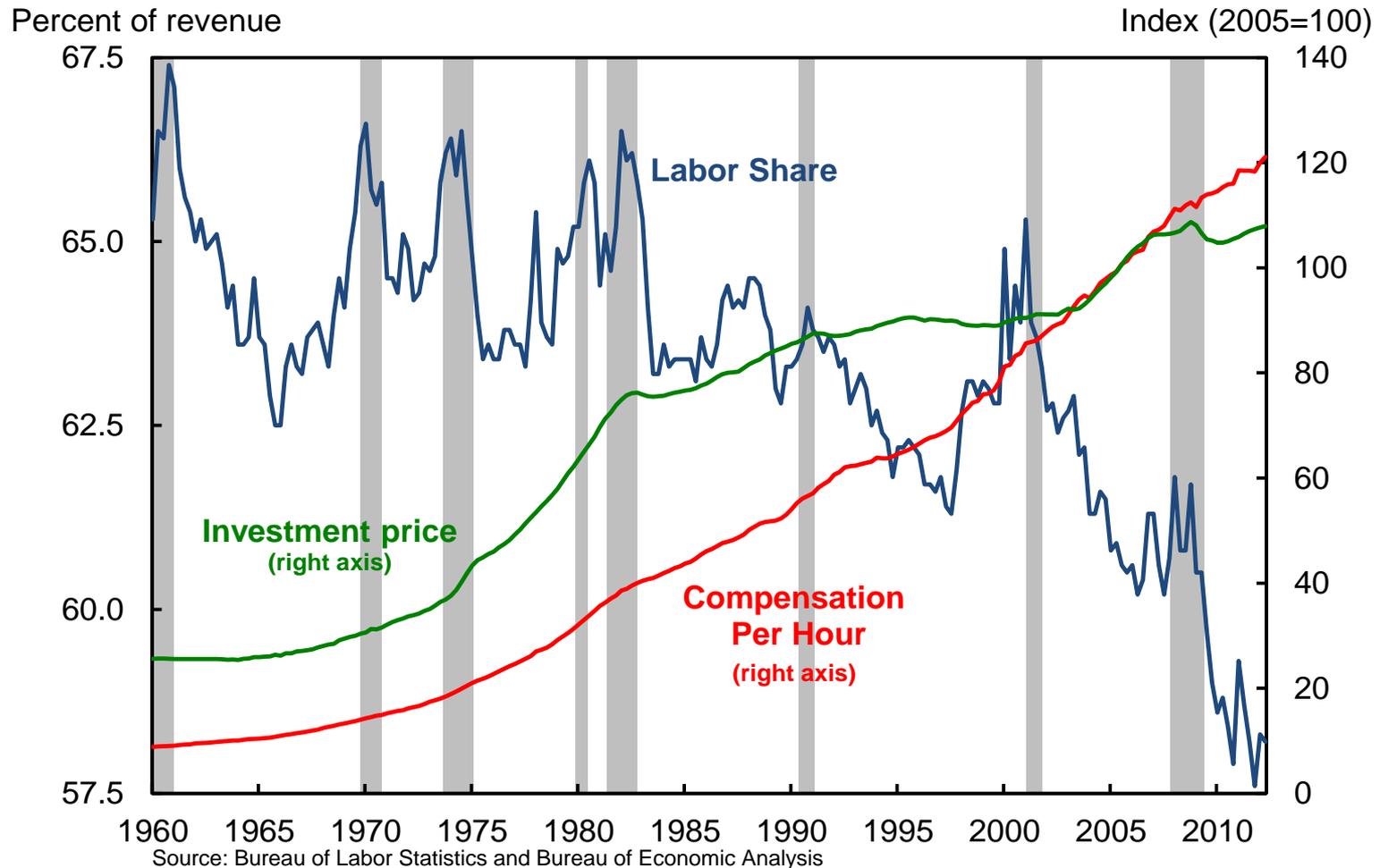
- **Offshoring and outsourcing**

- Offshoring: Part of value added chain moves abroad (manufacturing and now some services)
- Outsourcing: Vertical specialization along supply chain.

Are workers replaced by equipment?

Labor Share and Factor Prices

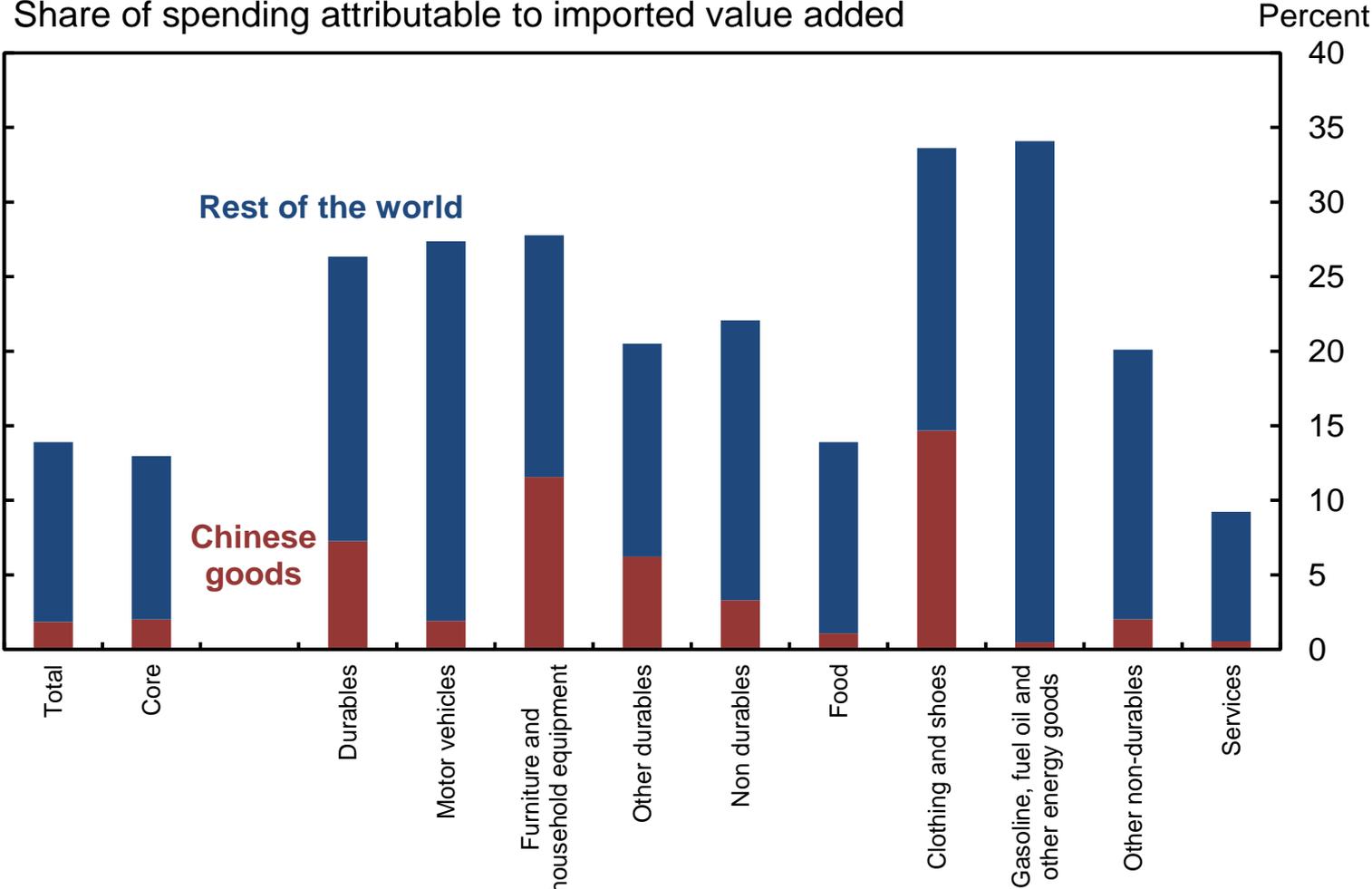
Seasonally adjusted; quarterly observations



Good imports 14 percent of cost of consumption

2010 Import Content of Personal Consumption Expenditures

Share of spending attributable to imported value added



Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Census Bureau, and Hale and Hobijn (2011)

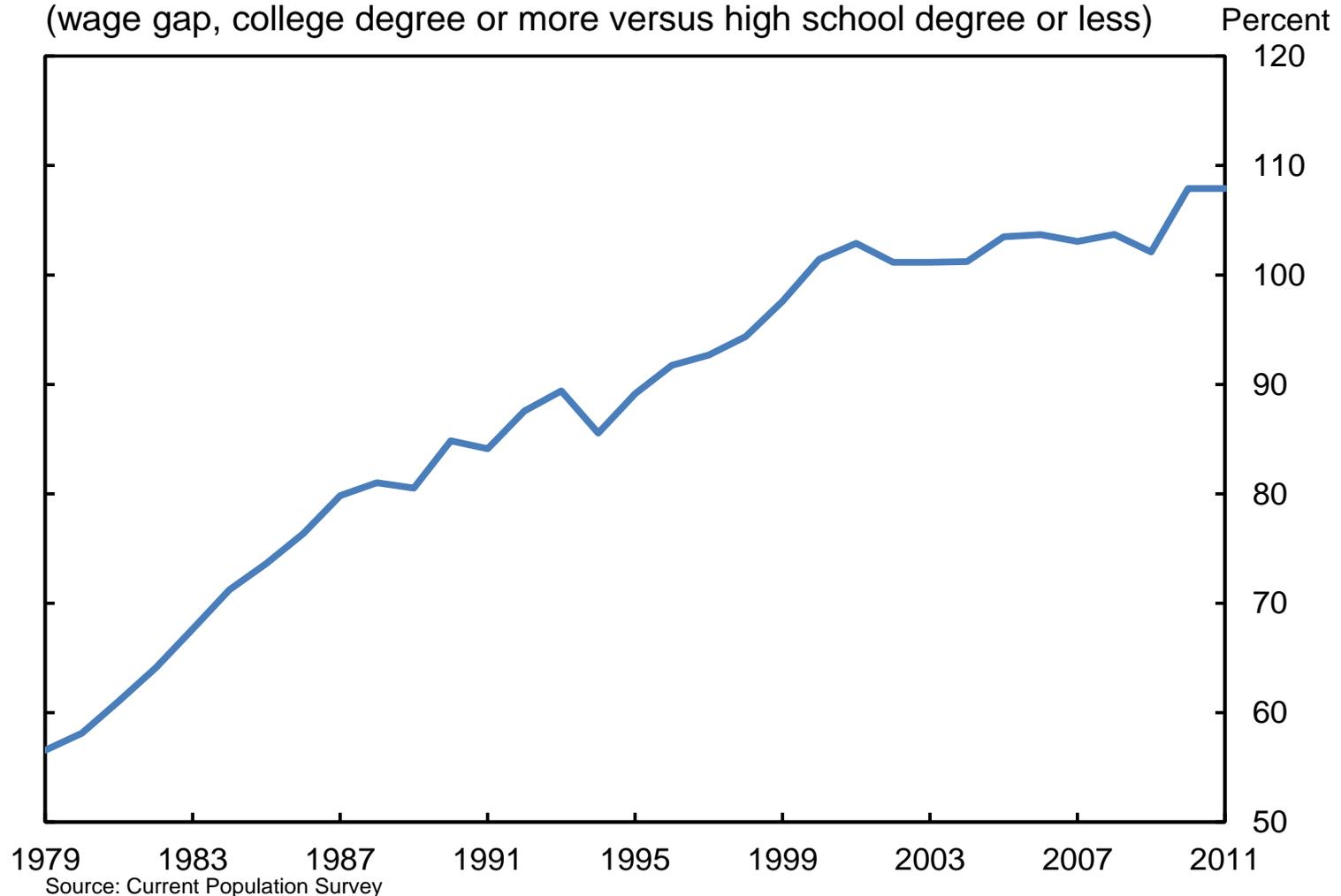
The changing role of workers

THE INCREASED IMPORTANCE OF SKILLED LABOR

Substantial rise in U.S. skill premium

College vs. High School Wage Gap

(wage gap, college degree or more versus high school degree or less)

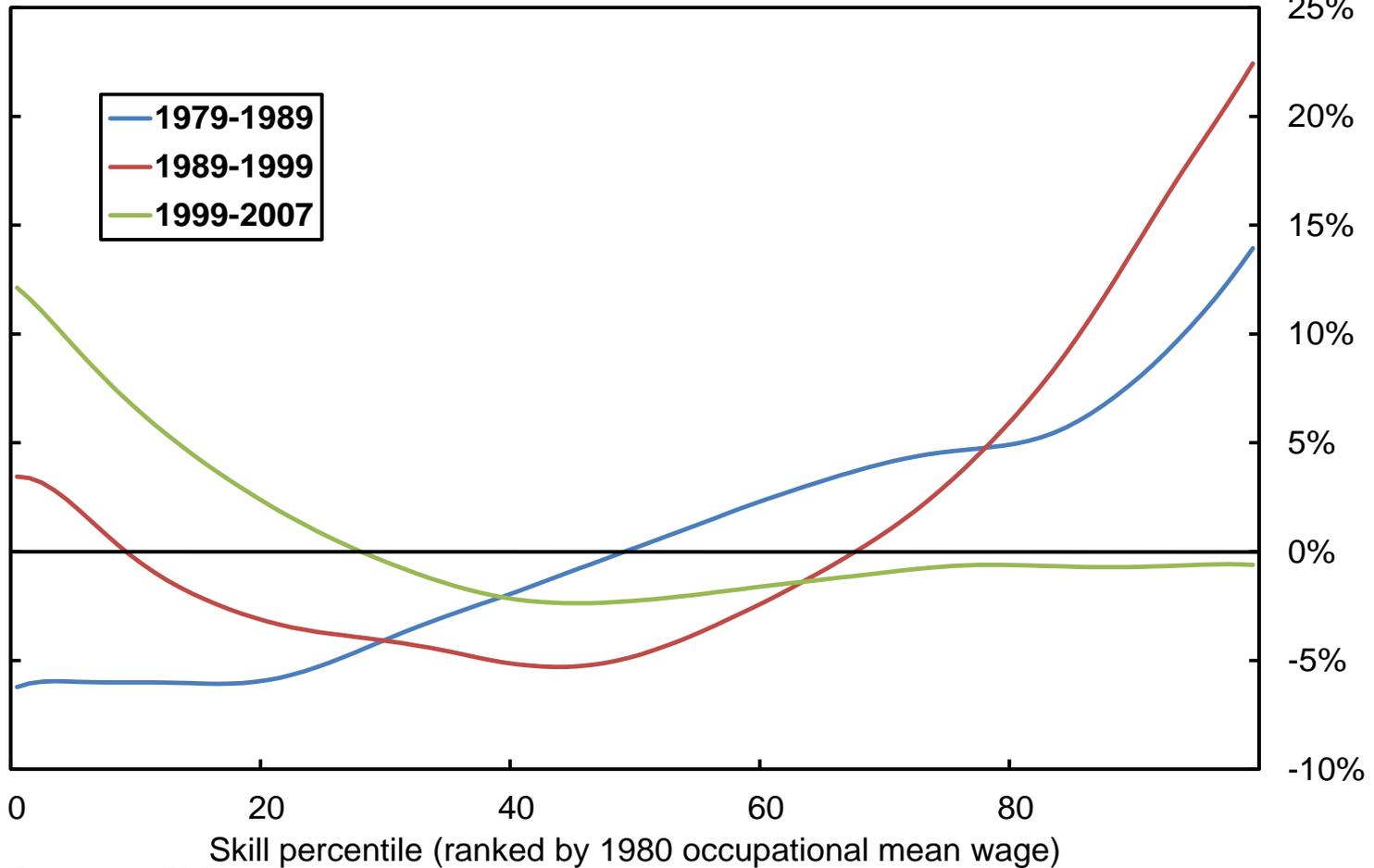


“Hollowing out” of U.S. jobs

Changes in employment by occupational skill percentile

1979-2007

Change in employment

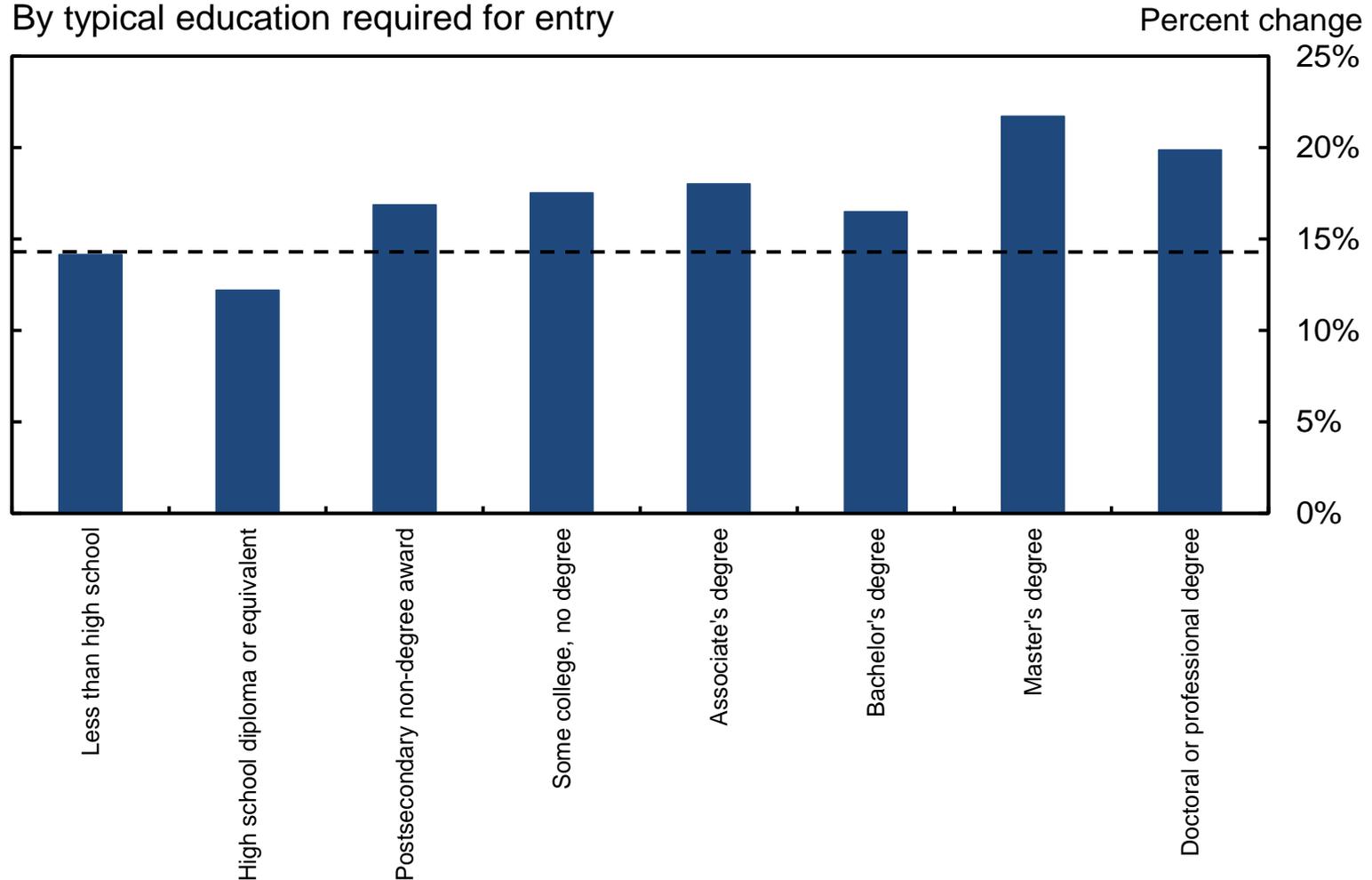


Source: Autor (2010)

Continued growth in high-skill jobs

Projected employment growth: 2010-2020

By typical education required for entry



Source: Bureau of Labor Statistics

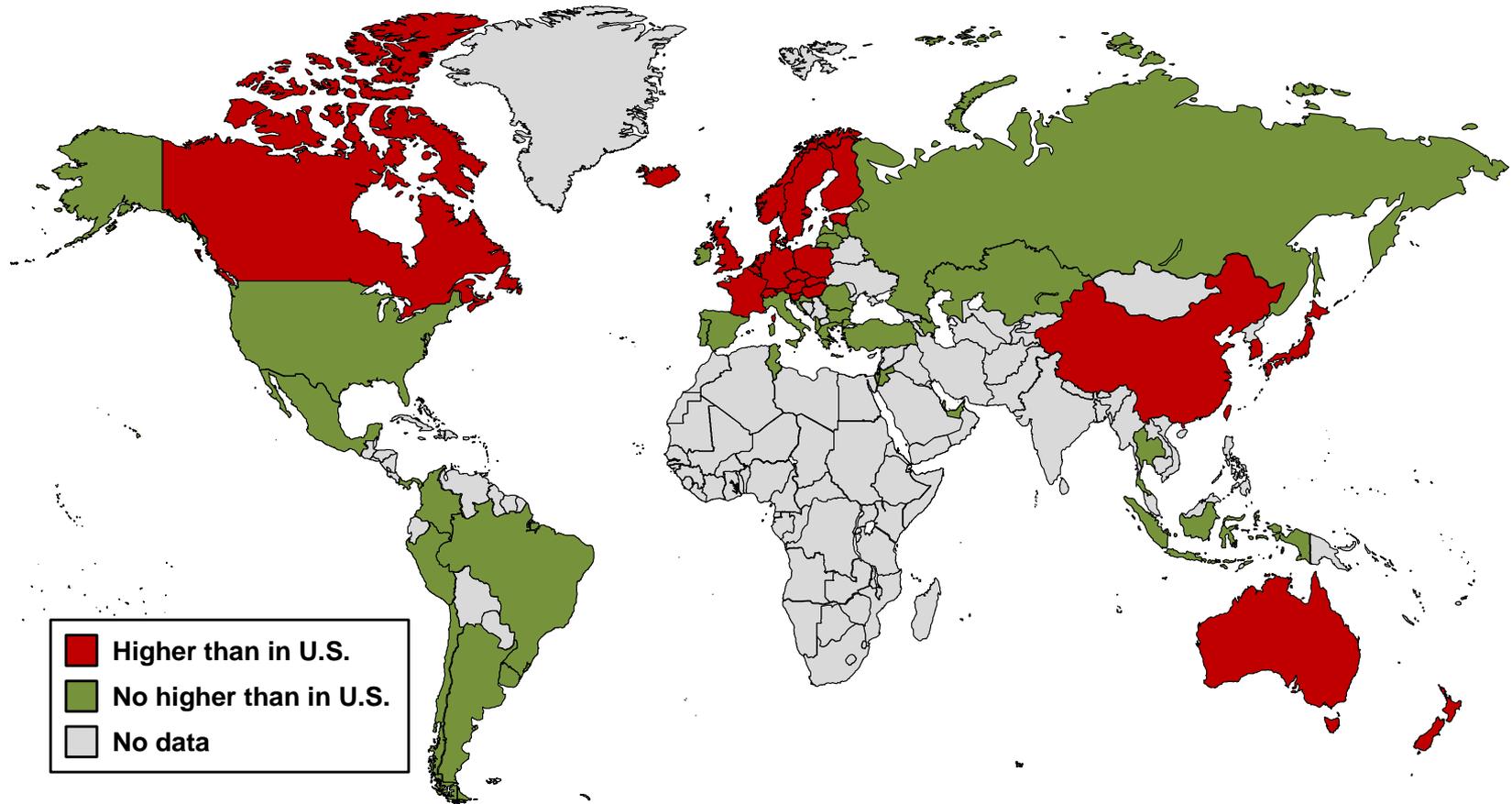
Education and training

HOW IS U.S. WORKFORCE PREPARING FOR FUTURE?

Middle-of-the pack test scores

Math Test Score for Secondary Education

Scores ranked relative to the United States; 2009 data

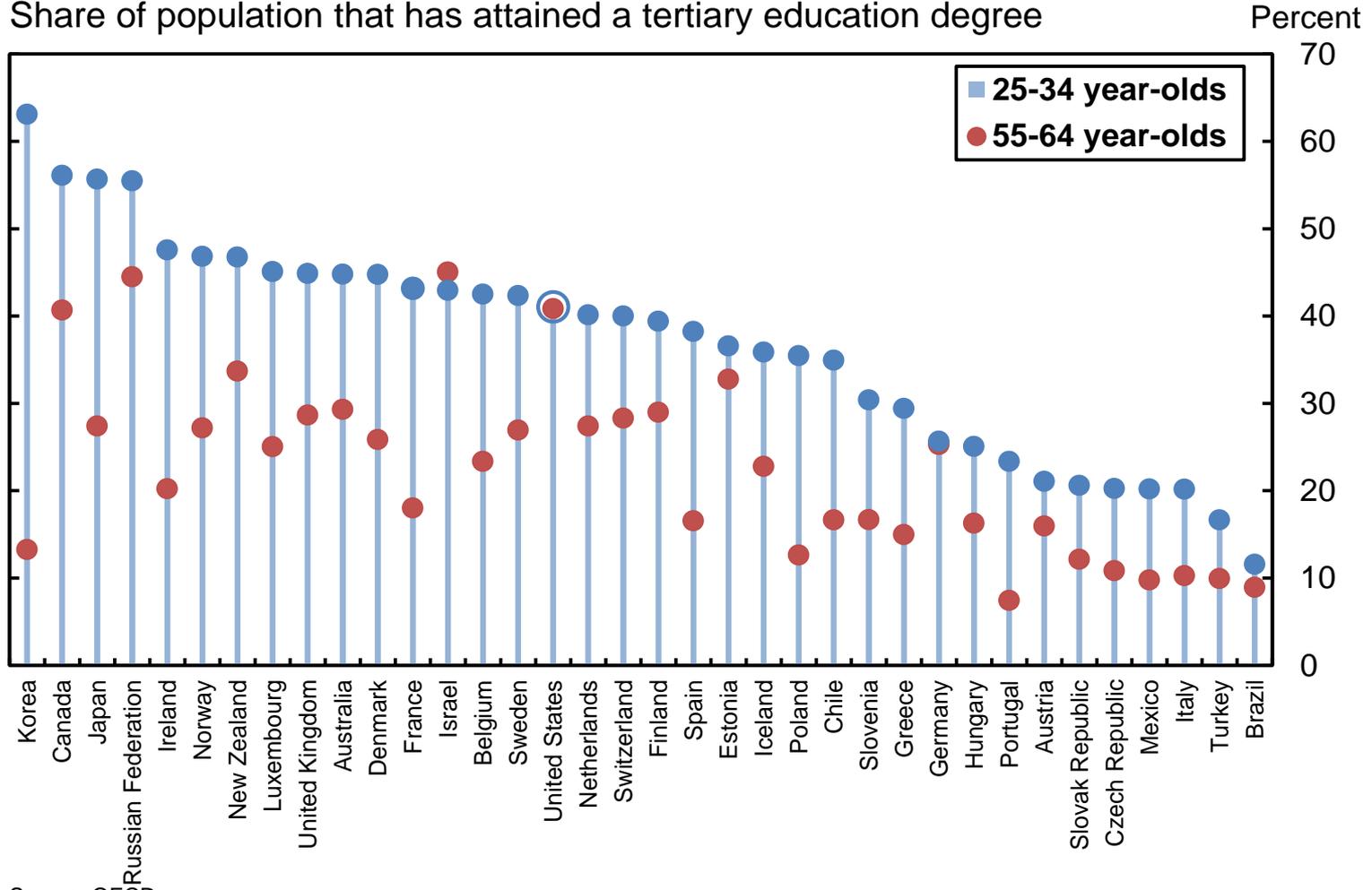


Source: Program for International Student Assessment / OECD

Stalled growth in higher education

College attainment rates by age group

Share of population that has attained a tertiary education degree

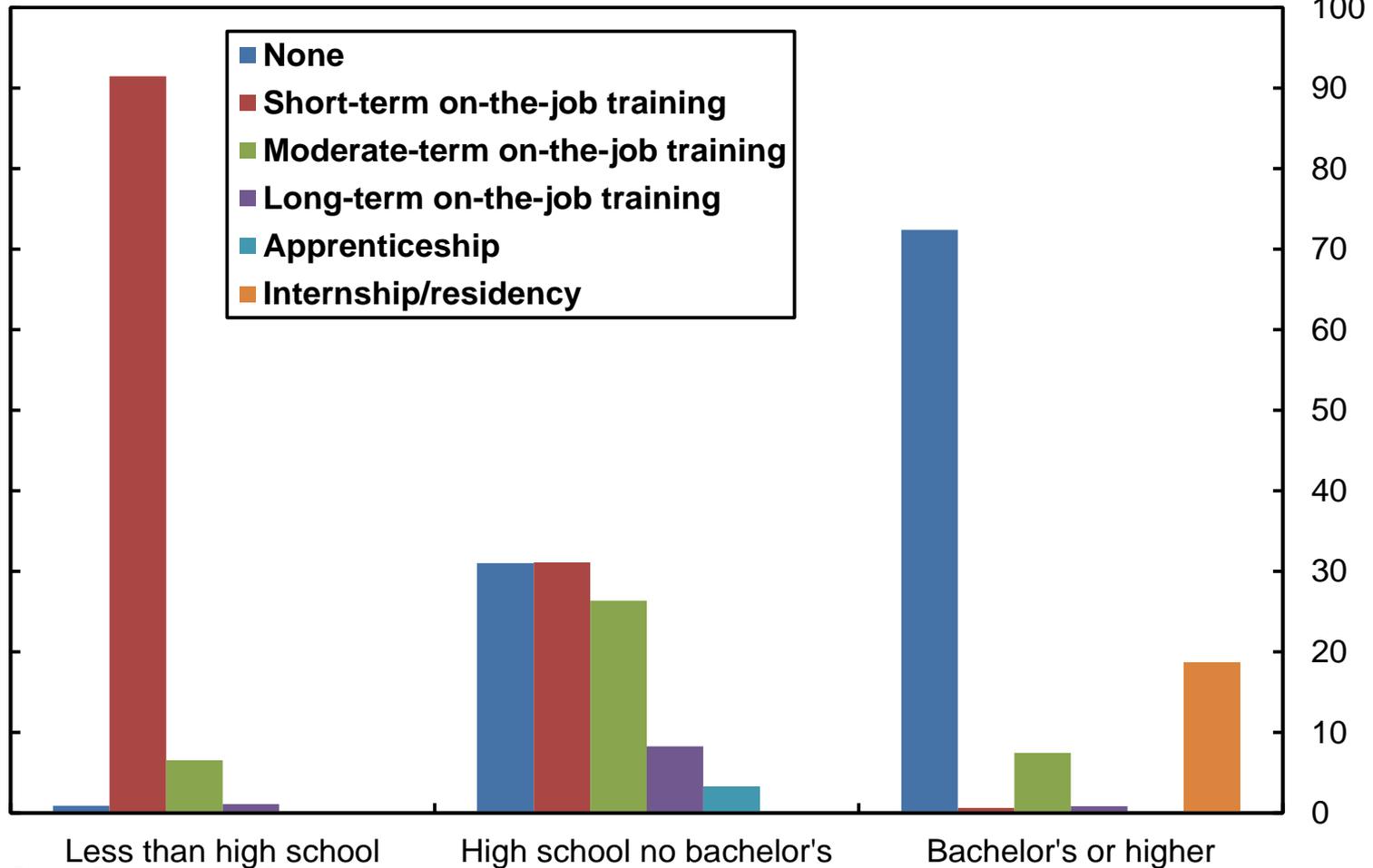


Source: OECD

Post-education investment in workers

On-The-Job Training by Education Level

Share of employed by education group by on the job training type Share of employees



Source: Bureau of Labor Statistics Employment Projections

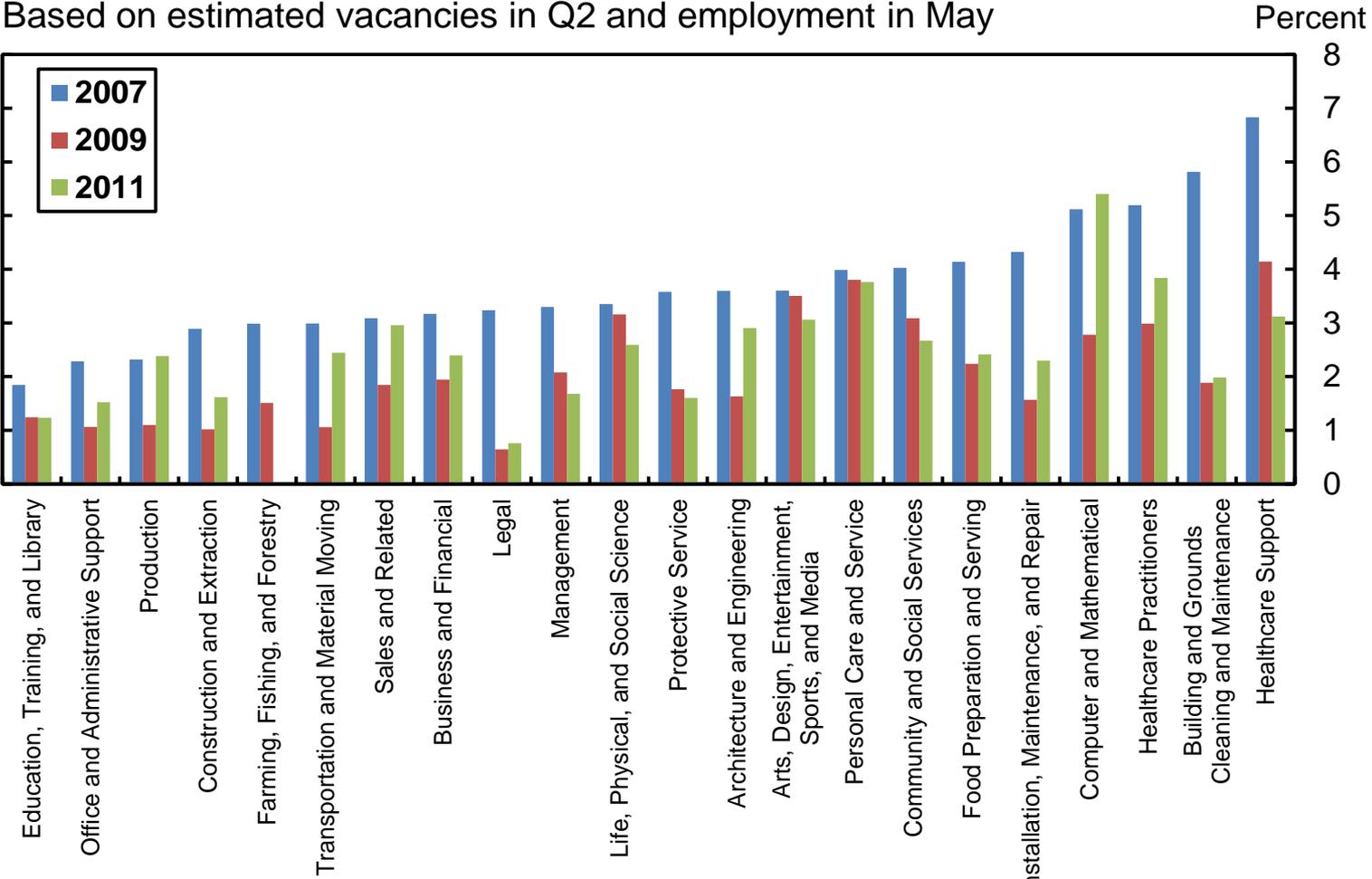
The Great Recession and its aftermath...

DID RECESSION ACCELERATE PRE-EXISTING TRENDS?

Broad-based downturn, uneven recovery

Job Openings Rate by Occupation: 2007, 2009, and 2011

Based on estimated vacancies in Q2 and employment in May

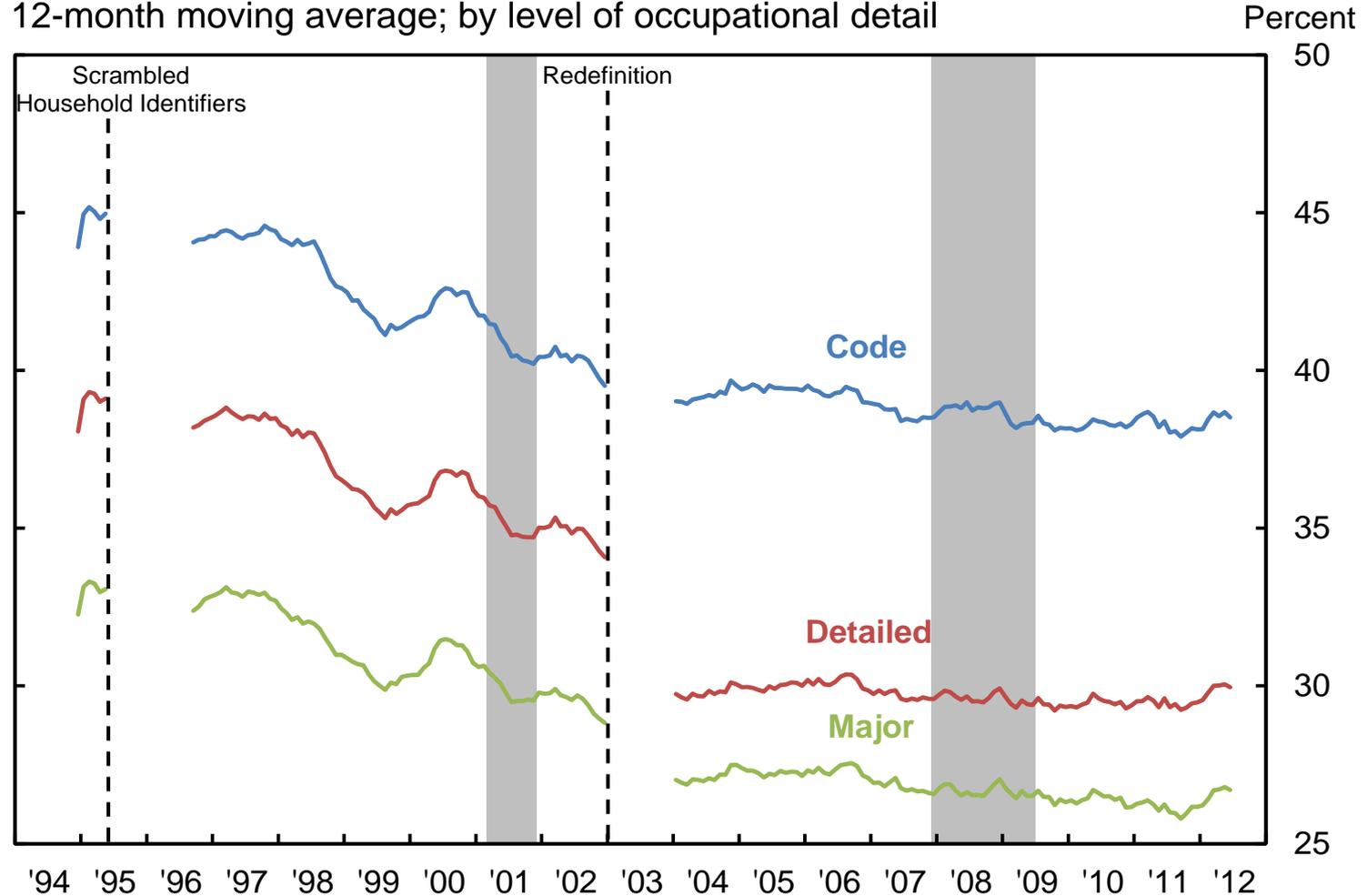


Source: CPS, JOLTS, JVS, OES, and author's calculations. Occupations ordered by 2007 job openings rate.

U.S. workforce very mobile

Hires that change occupation

12-month moving average; by level of occupational detail



Concern about recession's effect on participation

Labor Force Participation Rate: Actual and Trends

Monthly observations; seasonally adjusted data

