

The Labor Market After the COVID Crisis: Too Few Low-Paid Jobs



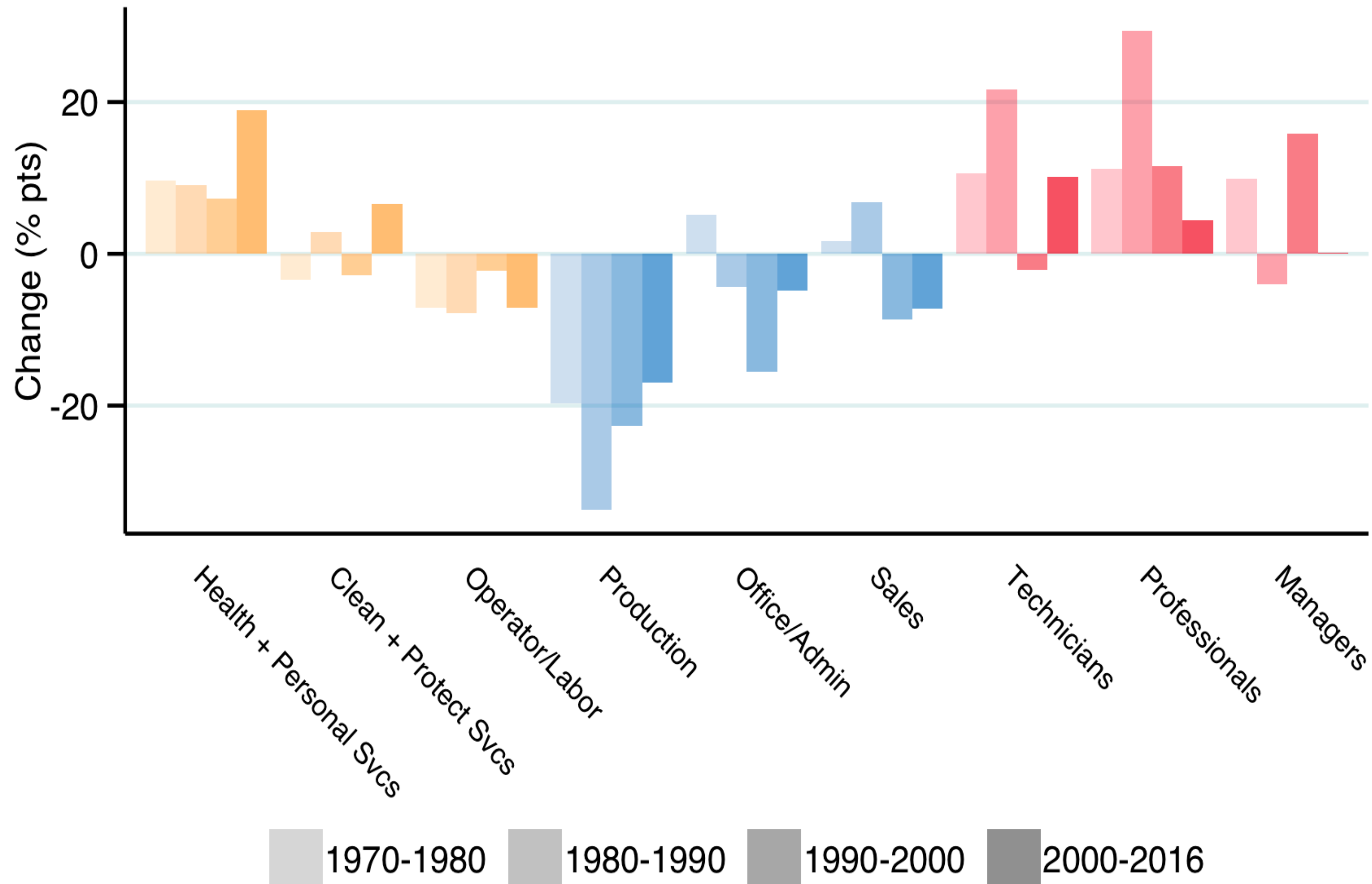
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Co-Chair, MIT Work of the Future Task Force
The Labor Market Impacts of the COVID Crisis
World Bank: 6 July 2020

Where We Were Headed Pre-COVID

1. Polarized occupational growth ('barbell economy')
2. Movement into low-paid personal services concentrated among non-college workers
3. Low wages but tightening labor market
 - Rising dependency ratio (Baby Boom retiring)
 - Small cohorts of young workers (low fertility)
 - Curtailed immigration (policy)
 - Rising projected employment in personal services
4. Expectation: Rising wage pressure in low-paid services

Changes in Occupational Employment Shares, 1970-2016

Working Age Adults (Percent Change Over Decade)



‘Occupational Polarization’

High skill jobs

- **Rising** employment in professional, technical and managerial work

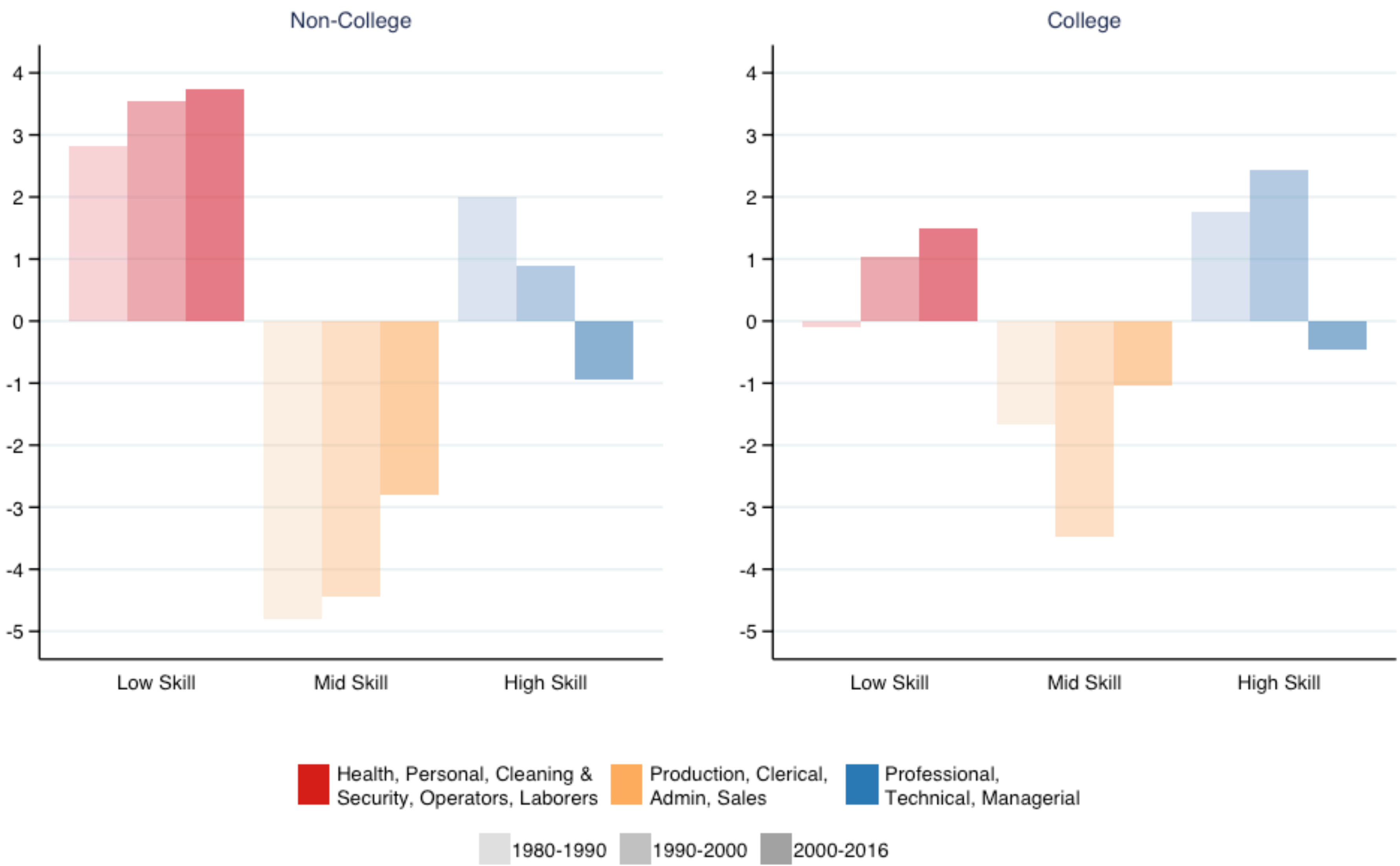
Low skill jobs

- **Rising** employment in personal services — Cleaning, security, recreation, health aides

Mid skill jobs

- **Falling** employment in production work, office/clerical, and sales

Changes in Occupational Employment Shares among Working Age Adults, 1980-2016



Among College Workers Most Occupational Relocation is *Upward*

But among Non-College Workers, Occupational Mobility is almost Exclusively *Downward*

Occupations with Most Projected New Jobs, 2018 - 2028

OCCUPATION	NUMBER OF NEW JOBS (PROJECTED), 2018-28	2018 MEDIAN PAY
Personal care aides	881,000	\$24,020 per year
Combined food preparation and serving workers, including fast food	640,100	\$21,250 per year
Registered nurses	371,500	\$71,730 per year
Home health aides	304,800	\$24,200 per year
Cooks, restaurant	299,000	\$26,530 per year
Software developers, applications	241,500	\$103,620 per year
Waiters and waitresses	170,200	\$21,780 per year
General and operations managers	165,000	\$100,930 per year
Janitors and cleaners, except maids and housekeeping cleaners	159,800	\$26,110 per year
Medical assistants	154,900	\$33,610 per year
Construction laborers	148,100	\$35,800 per year
Laborers and freight, stock, and material movers, hand	144,000	\$28,260 per year
Market research analysts and marketing specialists	139,200	\$63,120 per year
Nursing assistants	135,400	\$28,540 per year
Management analysts	118,300	\$83,610 per year
First-line supervisors of food preparation and serving workers	107,200	\$32,450 per year
Landscaping and groundskeeping workers	106,400	\$29,000 per year
Financial managers	104,700	\$127,990 per year
Heavy and tractor-trailer truck drivers	99,700	\$43,680 per year
Medical secretaries	96,400	\$35,760 per year

These 20 jobs

- Account for 4.6M of projected 8.4M net jobs
- That's 55 %

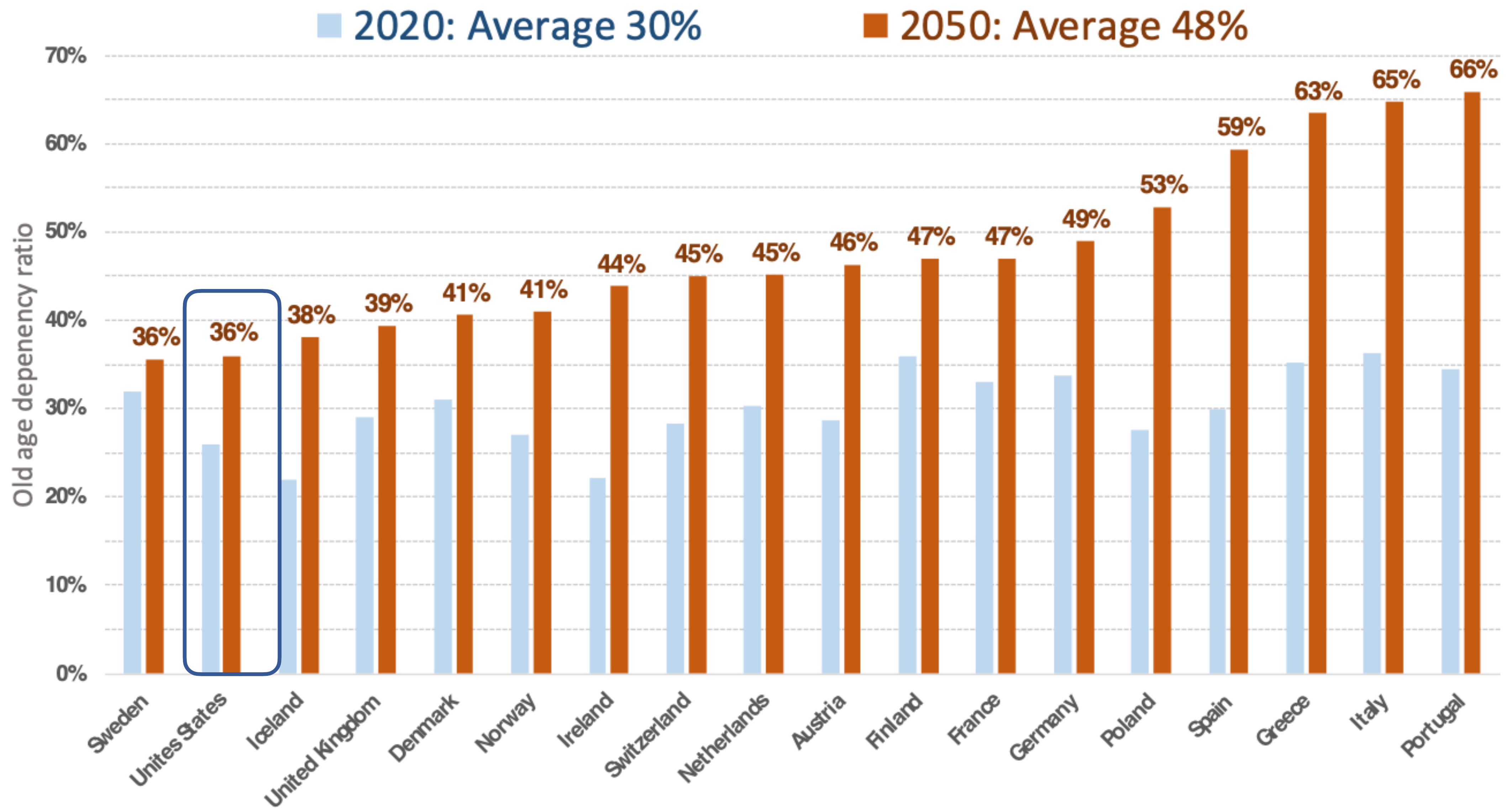
Concentrated in

- Health aides
- Food and cleaning services
- Laborer occupations

Mostly

- Non-college
- Below median wage

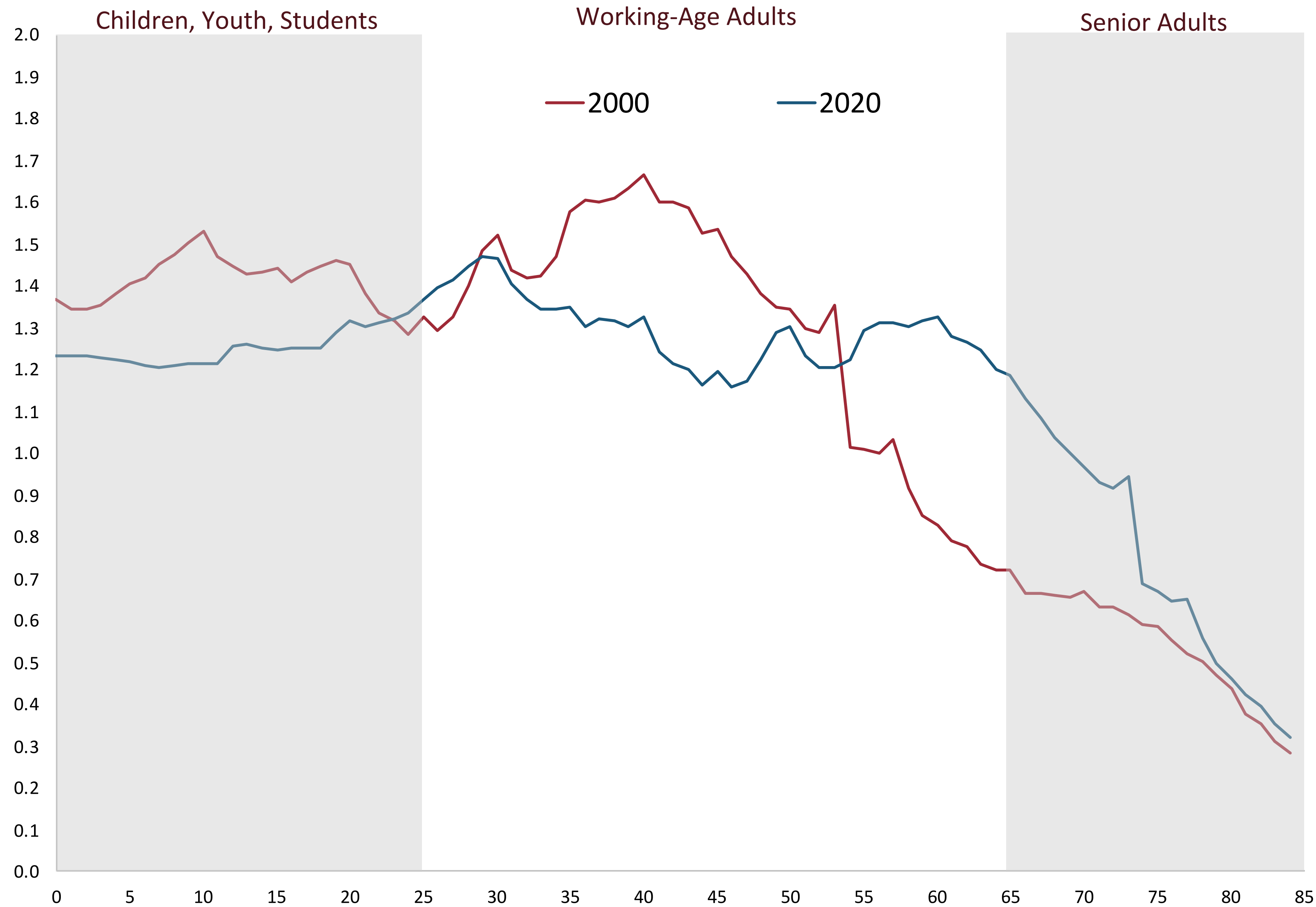
Old-Age Dependency Ratios Rising Steeply Across the Industrialized World (Ratio Age 65+ to Age 16 – 64)



Source: Eurostat

The Working-Age Share of the U.S. Population is Declining

Age Distribution of U.S. Population, 1980 - 2040



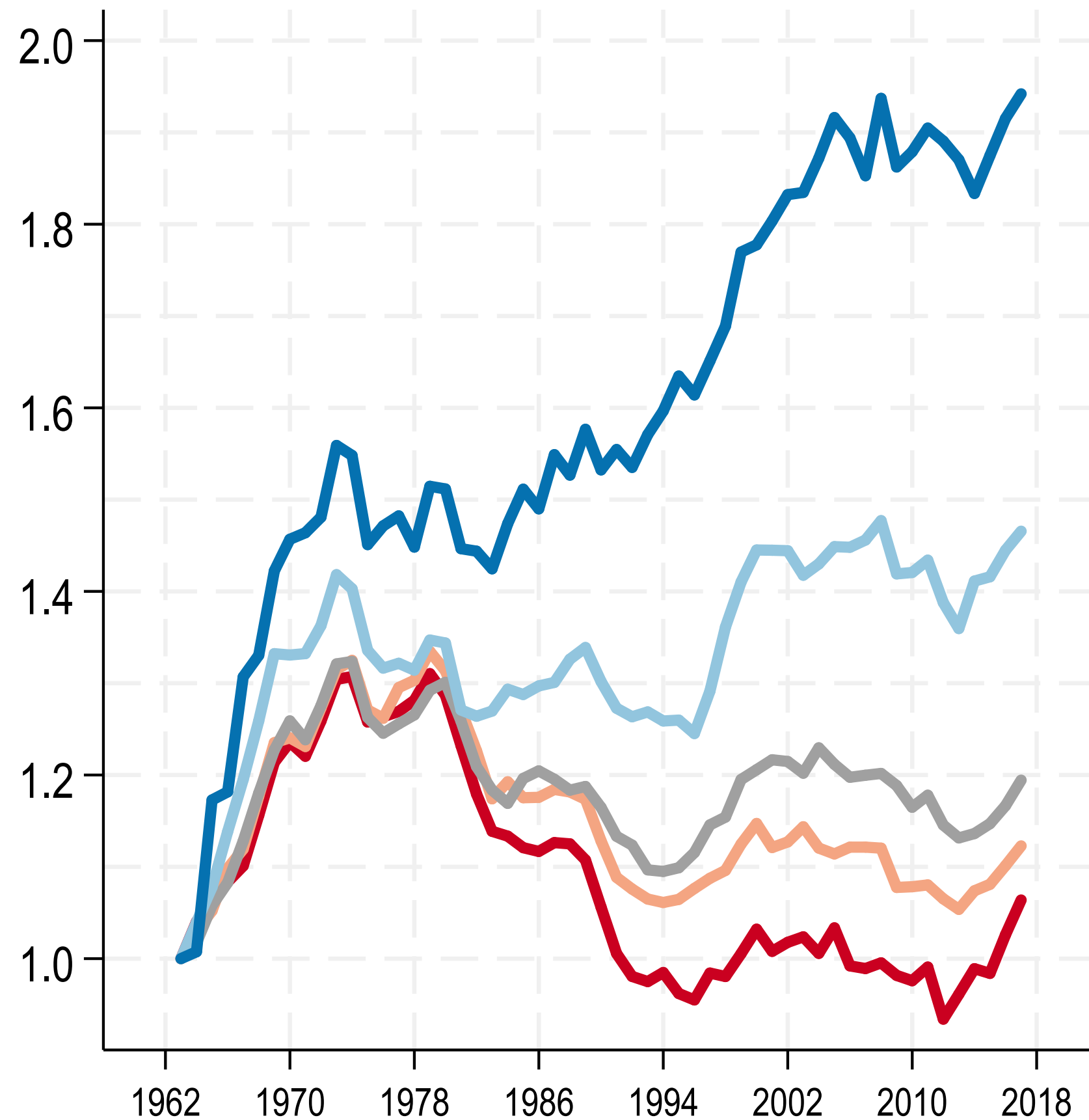
- 1. Aging baby boom cohorts
- 2. Low and falling fertility
- 3. Declining immigration
- 4. Rising educational attainment

Cumulative Change in Real Weekly Earnings 1963 - 2017

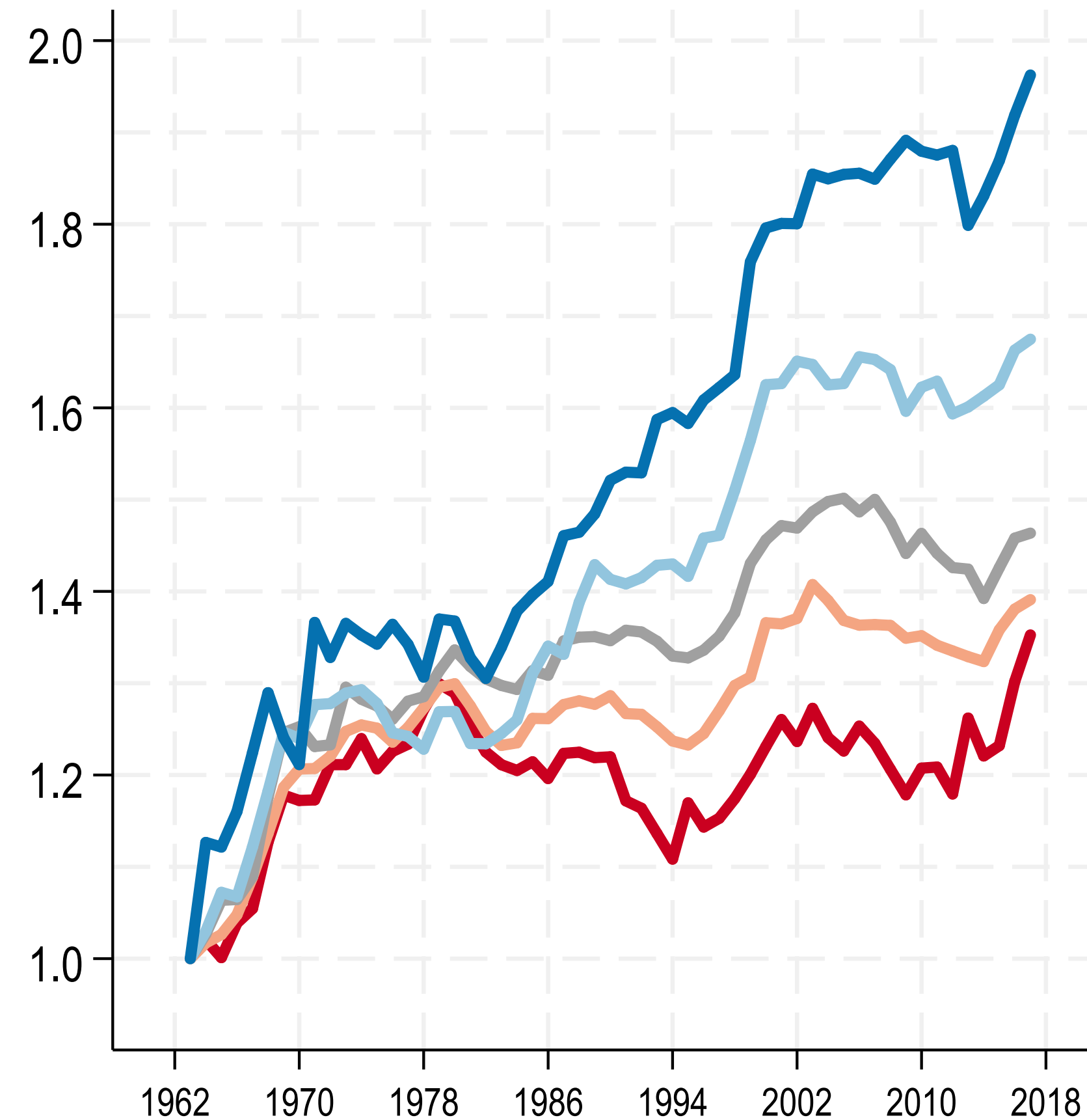
Working Age Adults, Ages 18 - 64

**Starting in 1980s —
Remarkable Rise of Wage
Inequality by Education**

Men



Women



1. Post-college educated

- 80 to 100% real rise

2. Four-year college

- 40 to 60% rise

3. High school or less

- Real wage have *fallen* among men
- Have *barely budged* among women

High School Dropout High School Graduate Some College
Bachelor's Degree Graduate Degree

Four Ways in Which the COVID Crisis is Changing the Labor Market

1. Telepresence
2. De-densification
3. Reallocation of sales + value-added towards large firms
4. Automation forcing

I. Telepresence

A Remotely Operated Underwater Vehicle



Remote Presence is a Form of Automation

- Telecommuting
- Business meetings
- Tele-medicine

A Remotely Operated Underwater Vehicle



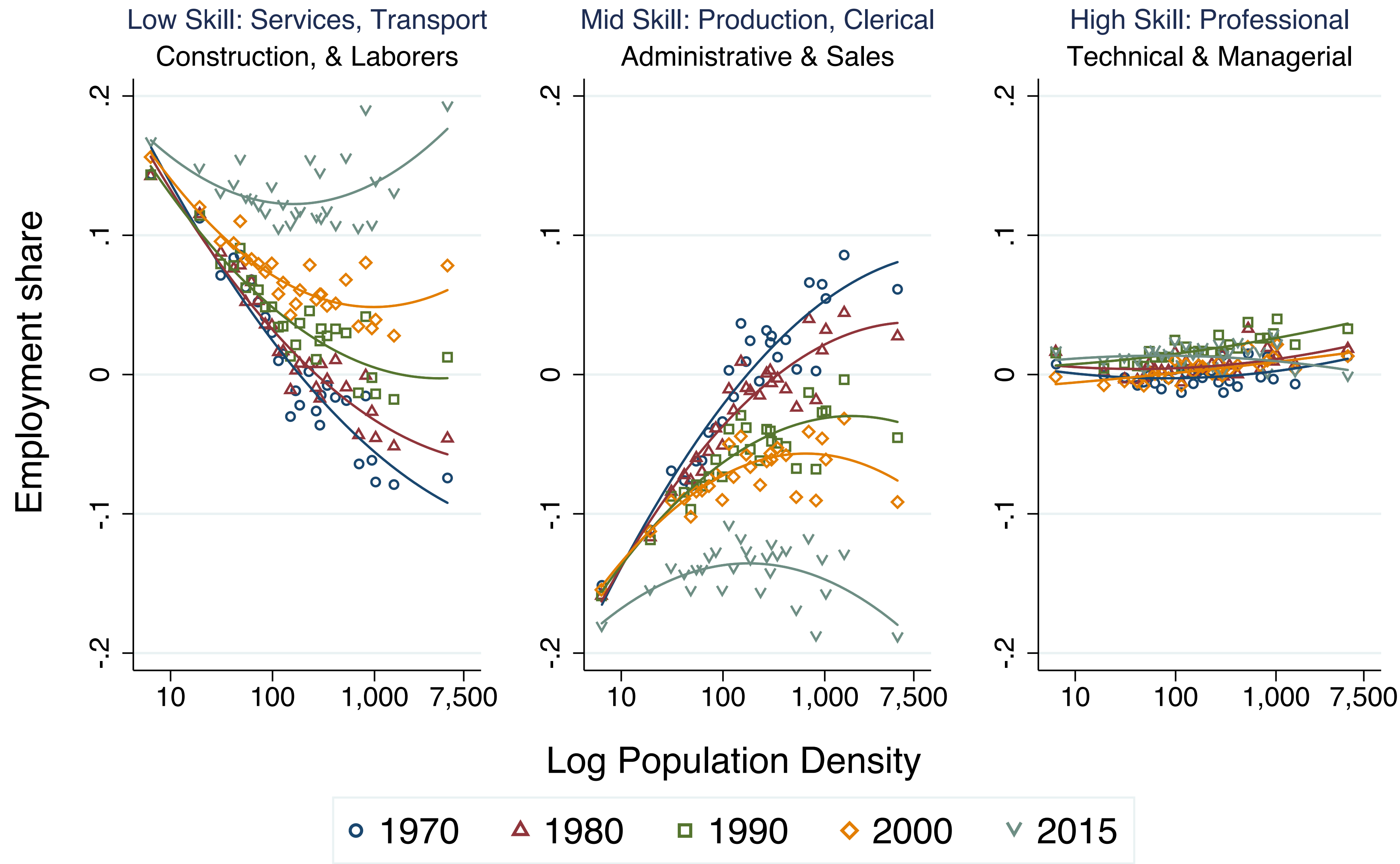
Will indirectly Affect Many jobs

Employment in 2019

- 9.2%: food prep & serving occs
- 8.5% transportation
- 3.0% buildings and grounds cleaning and maintenance
- 4.6 % protective services
- 4.6% in personal care and services
- 3.4% retail sales

II. De-densification

Occupation Shares among Non-College Adults: High School or Below (Level Relative to 1970 Mean)



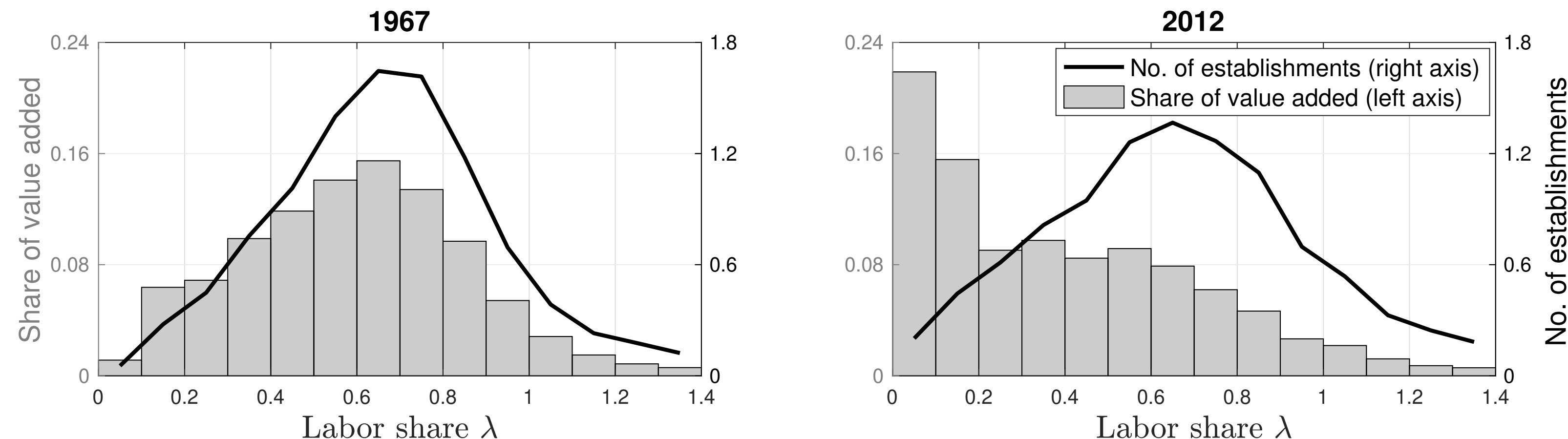
**Movement into
Personal Services Has
Been the Primary
Source of Job Growth
Among Non-College
workers in U.S. Cities
Since 1970**

III. Large-Firm Consolidation

Large Firms Have Lower Labor Shares (i.e. Are More Capital-Intensive) and Account for a Rising Share of Value-Added

**COVID Crisis Will
Increase
Economic Weight
of Large Firms**

Figure I: The Changing Distributions of Labor Shares and Value Added



Note: The solid black line (right axis) reflects the raw cross-establishment distribution of labor shares, while the distribution of value added is represented by the gray bars (left axis). The labor share on the x-axis is expressed as a decimal.

- This will further depress labor's share of national income
- That share has fallen 5% to 7% since 2000

IV. Automation Forcing

MIT Warehouse Disinfecting Robot



Many Examples of Automation- Forcing

1. Drones delivering medical supplies
2. Warehouse disinfecting robots
3. Human temperature checking drones
4. Meat-packing
5. Labor-saving reorganization

Why the Post-COVID Labor Market Will Look Different

1. Telepresence
2. De-densification
3. Reallocation of sales + value-added towards large firms
4. Automation forcing

The Post-COVID Labor Market: Too Few Low-Paid Jobs

1. Likely change in demand for services
 1. Reduced business travel (decline in hospitality sector)
 2. More telecommuting (reduced cleaning, security, food service)
 3. Shrunken retail sector
2. Reduced centrality of cities for 'knowledge' work (?)
3. Reallocation of sales + value-added towards large firms
4. Slack job market: ↓ wage pressure in low-paid services
5. One wildcard? A rise in early retirement

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Too Few Low-Paid Jobs
is Worse than Too Many