

Human Capital, Inequality and the Family

Conference honoring Denis Kessler

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Columbia University

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Notion of Human Capital (HC)

- Definition: *'Human capital consists of the knowledge, skills, and health that people invest in and accumulate throughout their lives, enabling them to realize their potential as productive members of society'* (World Bank)
- Education ... but not only
- Plays a key role for growth as well as inequality
- HC as an *investment* (Becker 1967!)
- **The family as a crucial contributor**

Inequality: the 'remaining 99%'

- Several recent works on inequality:
 - concentrate on the top 1% (or .1%)
 - emphasize financial wealth and bequests (' $r > g$ ')
- What about the remaining 99%?
 - inequality has increased in many countries between the early 1980s and the early 2010s
 - in some countries (e.g. China), increase in *all* incomes
 - in the US, stagnation (at best) at the bottom of the distribution
- Crucial role played by **human capital**

Inequality: a few facts

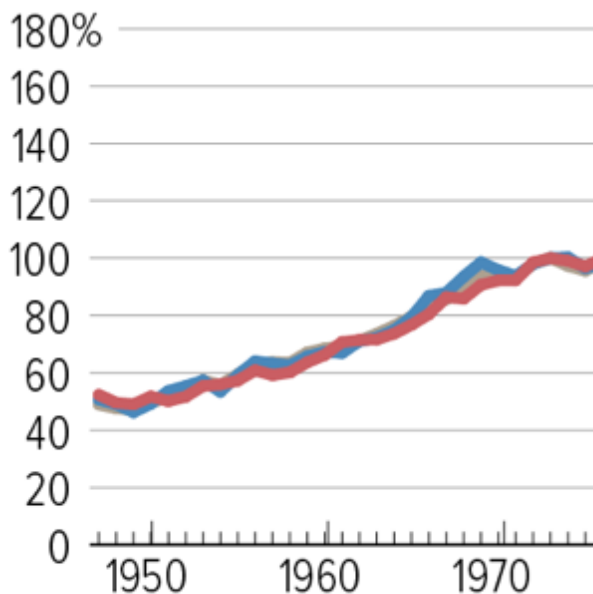
- 1 Growth: the 'diffraction effect'
- 2 Key role played by Human Capital
- 3 HC: a Demand vs Supply story
- 4 Inequality, HC and Social Mobility: the 'Great Gatsby' curve
- 5 Education, urbanization and vote
 - concentration of HC and wealth creation in urban areas
 - impact on voting behavior
- 6 Assortative matching and children investment

Fact 1: Growth - the 'diffraction effect'

Income Gains Widely Shared in Early Postwar Decades — But Not Since Then

Source: CBPP 2018

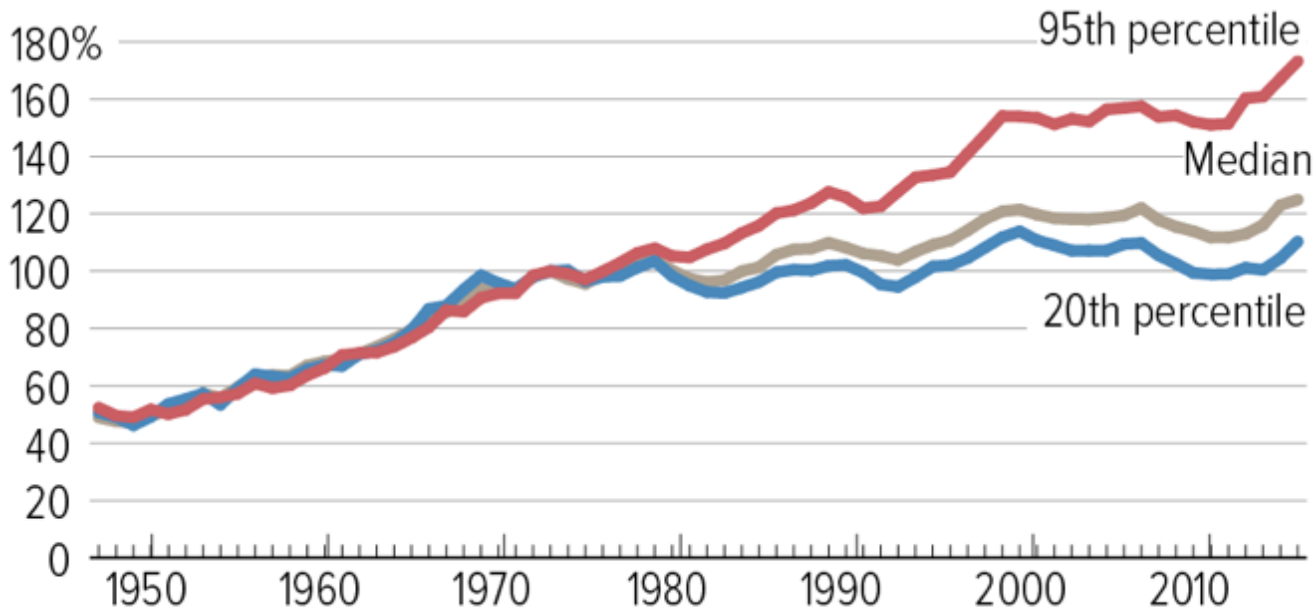
Real family income between 1947 and 2016, as a percentage of 1973 level

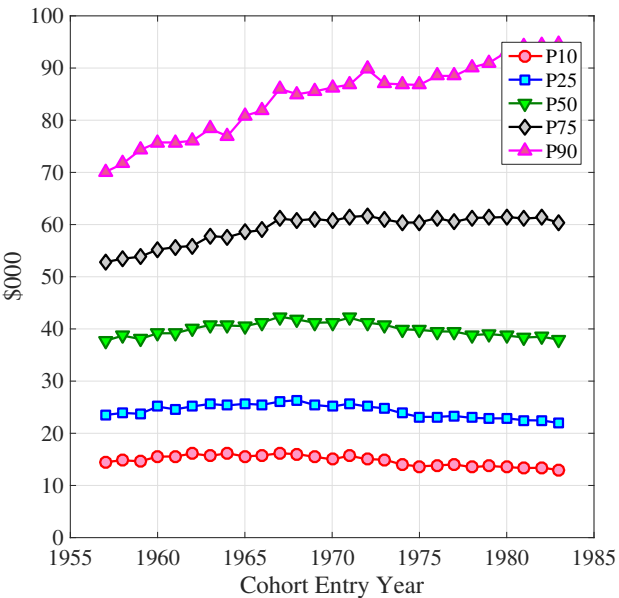


Income Gains Widely Shared in Early Postwar Decades — But Not Since Then

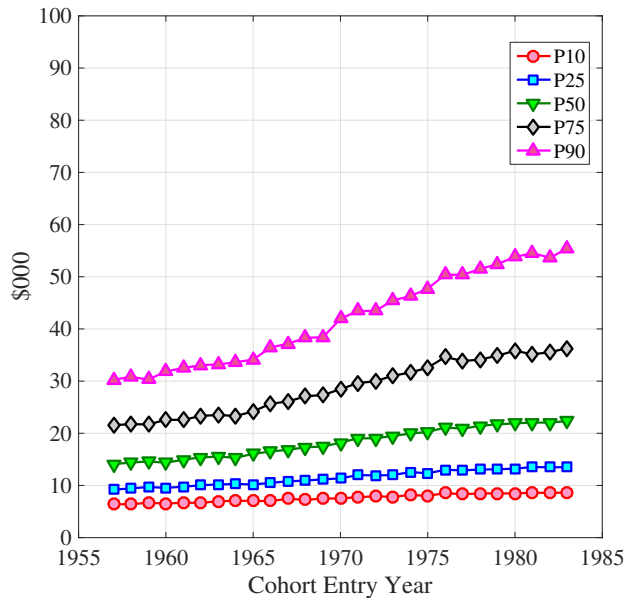
Source: CBPP 2018

Real family income between 1947 and 2016, as a percentage of 1973 level





(a) Males



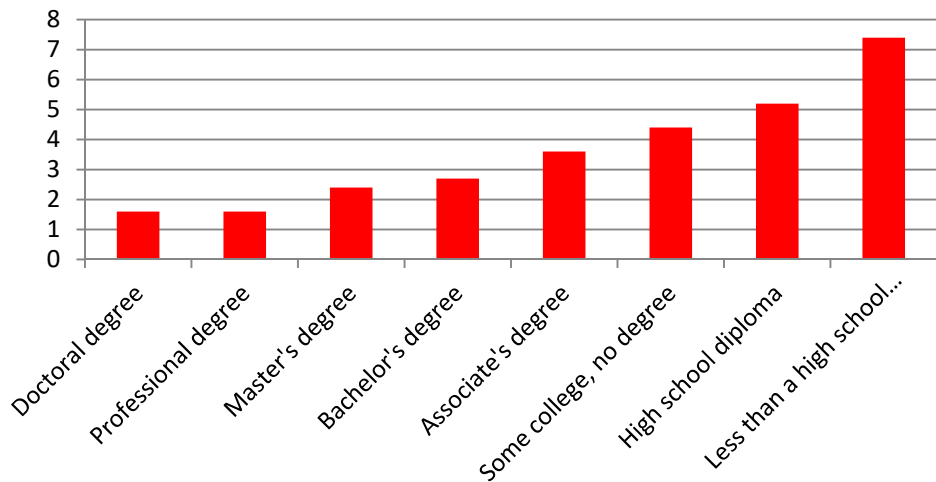
(b) Females

Figure 3: Selected Percentiles of Lifetime Income, by Cohort and Gender (Güvenen et al. 2017)

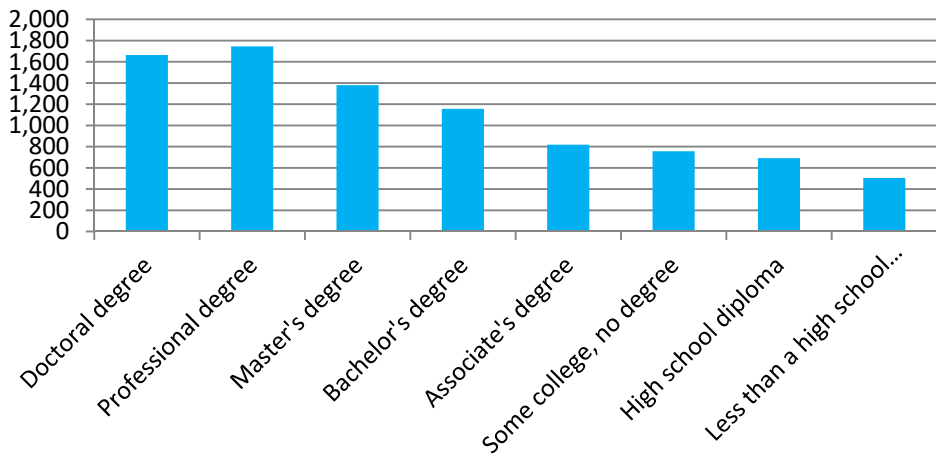
Fact 2: Inequality and Human Capital

- 1 Education, employment, income
- 2 The 'college premium'
- 3 Life expectancy

Unemployment rate (%)



Median usual weekly earnings (\$)



Cross-national differences in wage returns to skills, 2011–2013

Percentage increase for a one standard deviation increase in skill

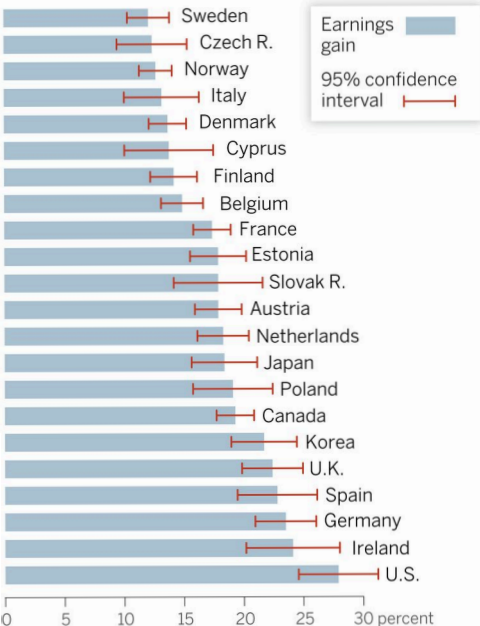
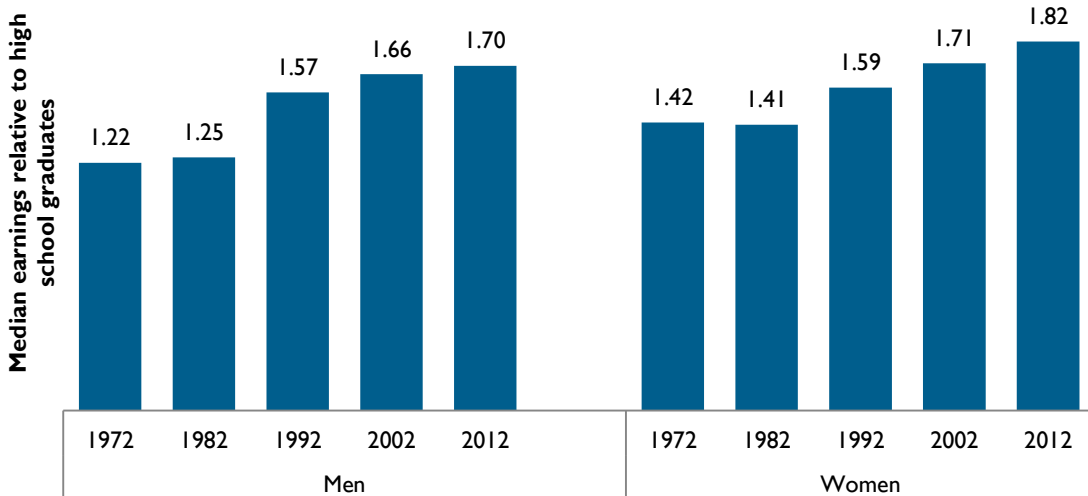


Figure 4. Median Earnings of Full-Time Year-Round Workers Ages 25–34 with at Least a Bachelor's Degree Relative to High School Graduates, 1972–2012, Selected Years



Sources: NCES 2004, table I4-1; US Census Bureau (1995–2010, 2011b–2012, and 2013d); Baum 2014.

Present discounted value of college relative to high school degree net of tuition, 1965–2008

College/high school difference, 2009 dollars

600,000 dollars

500,000

400,000

300,000

200,000

100,000

0

1965

1970

1975

1980

1985

1990

1995

2000

2005

2010

213K

129K

368K

198K

261K

138K

385K

225K

439K

284K

582K

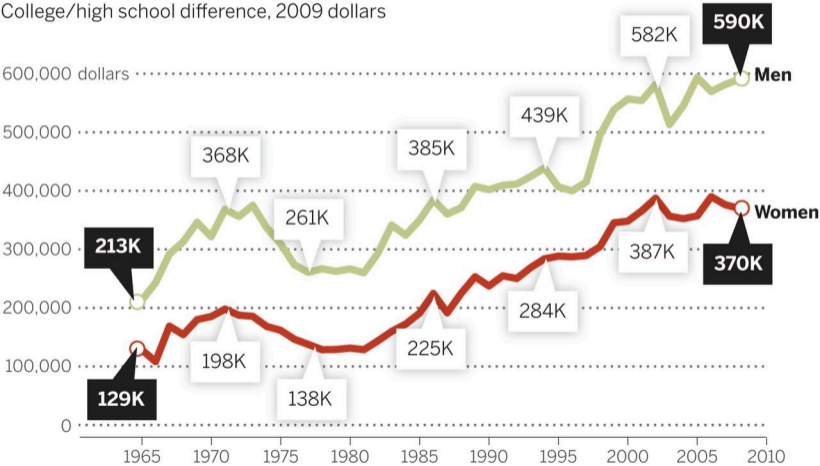
387K

590K

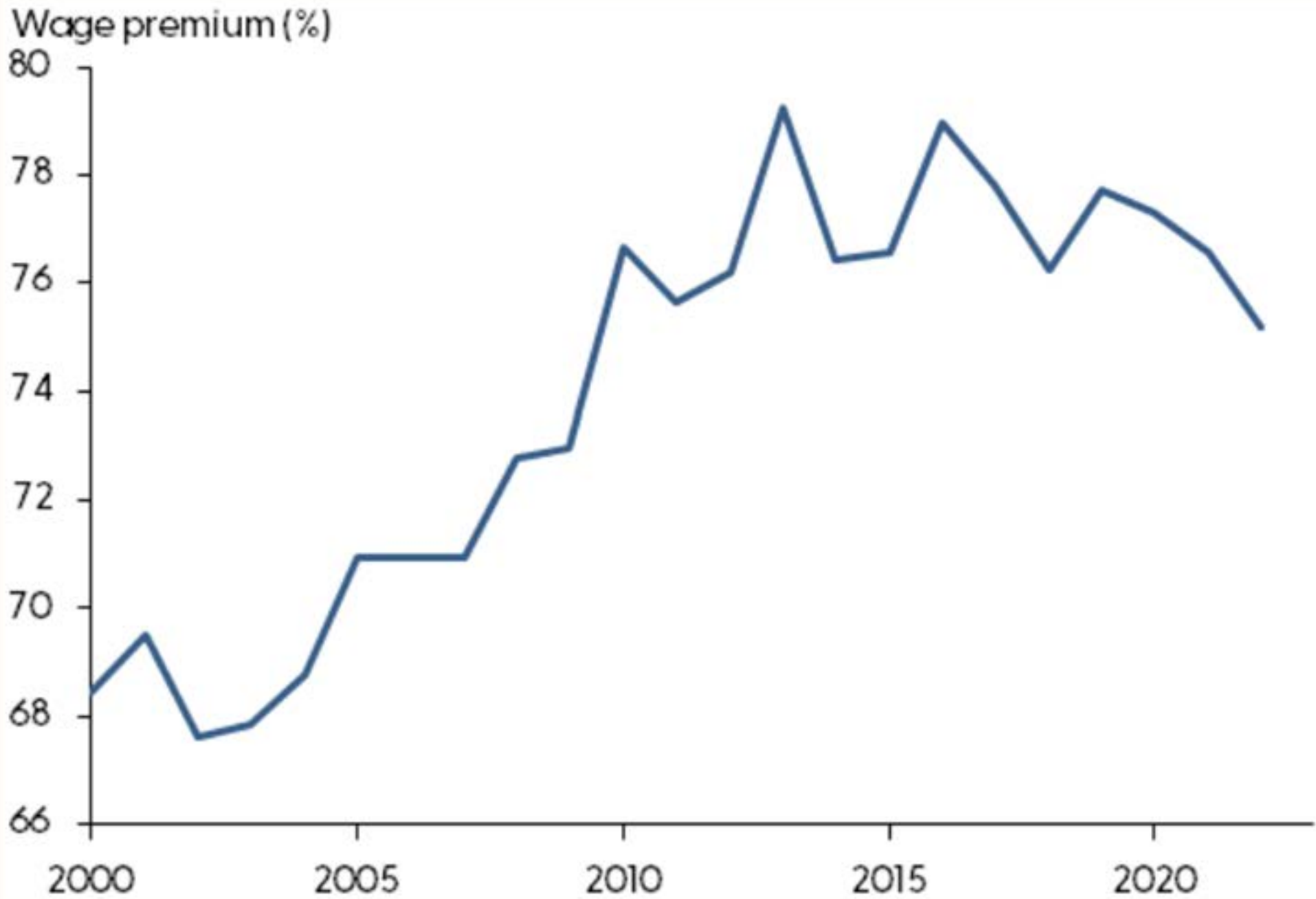
370K

Men

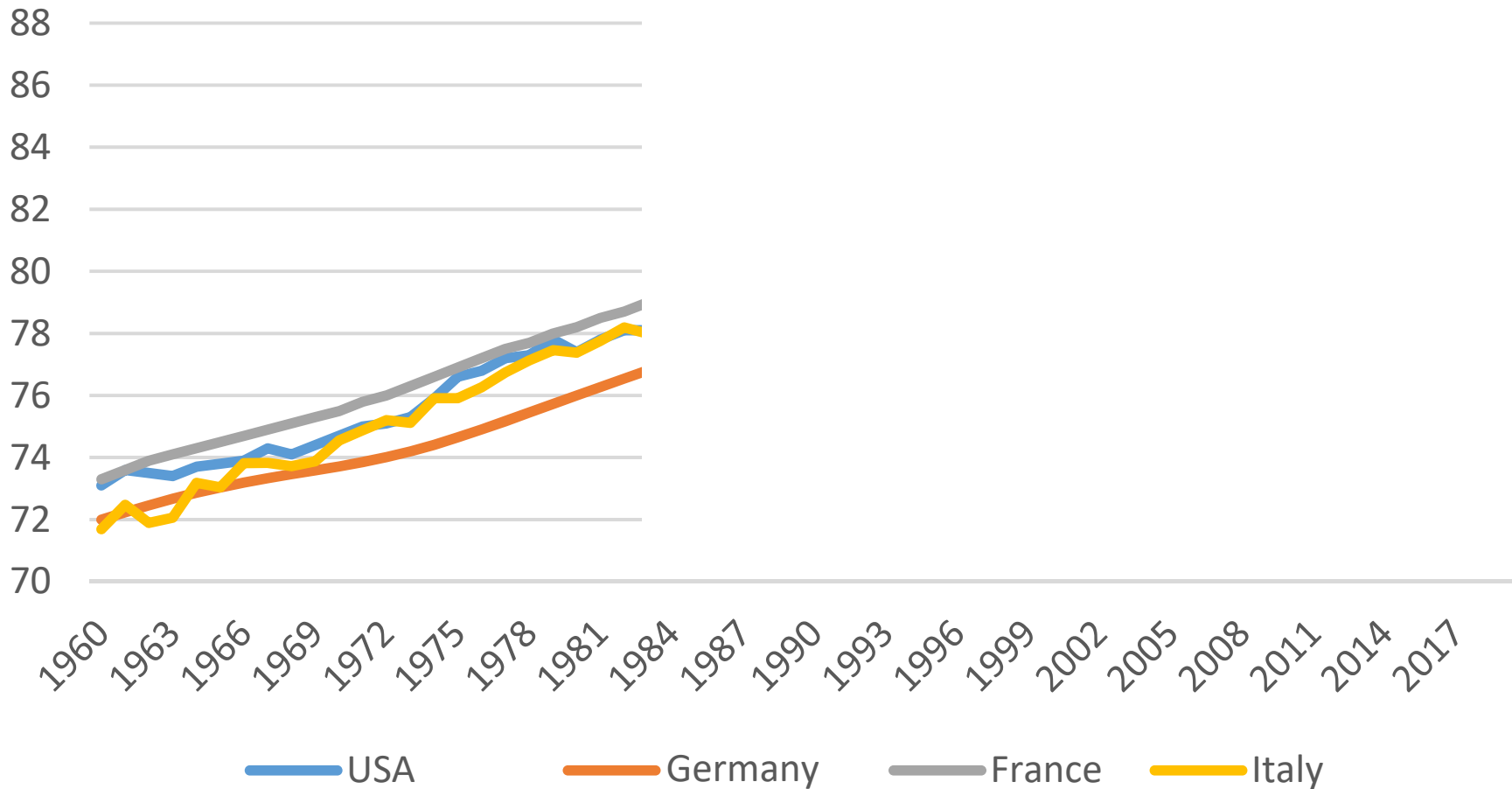
Women



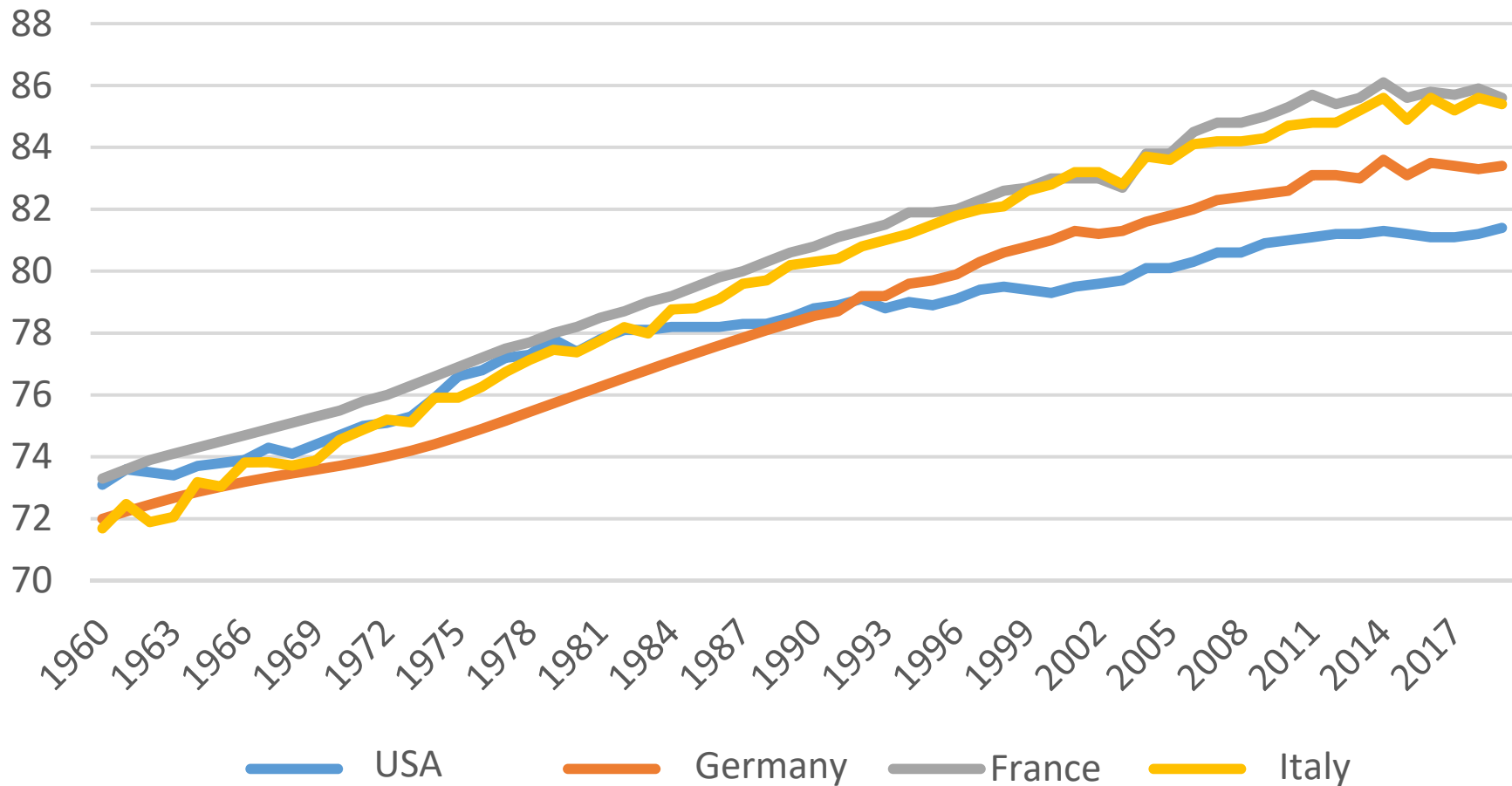
Overall college wage premium



Life expectancy at birth

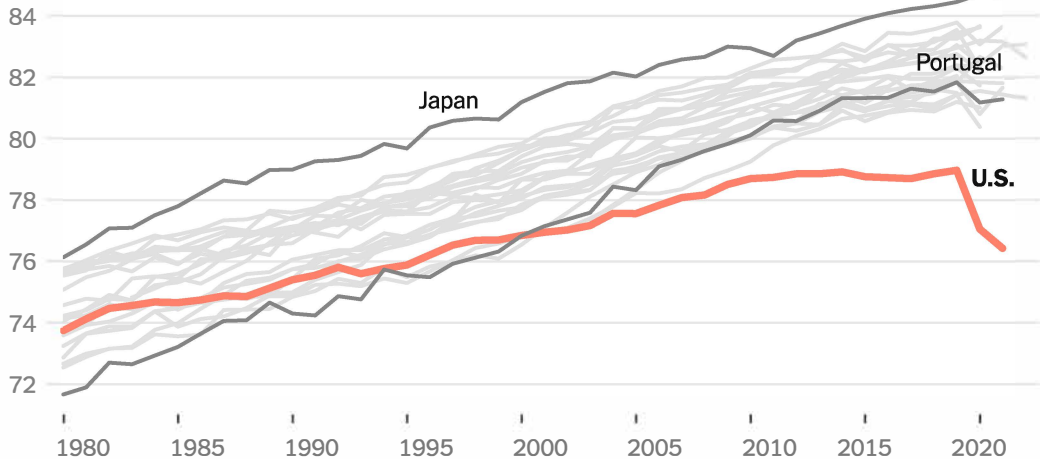


Life expectancy at birth

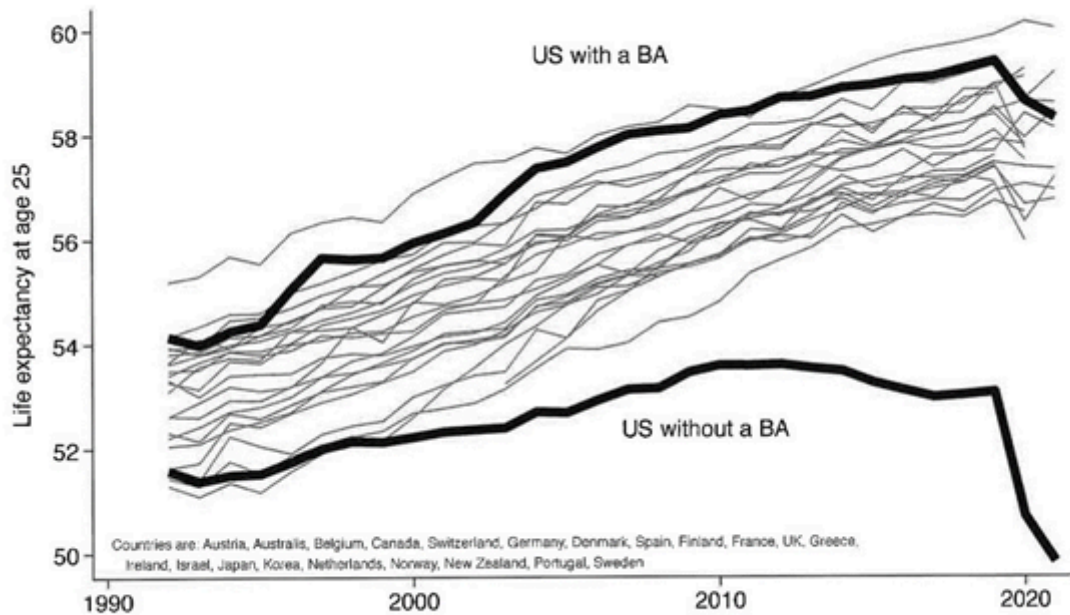


Life expectancy in the United States falls behind other rich countries

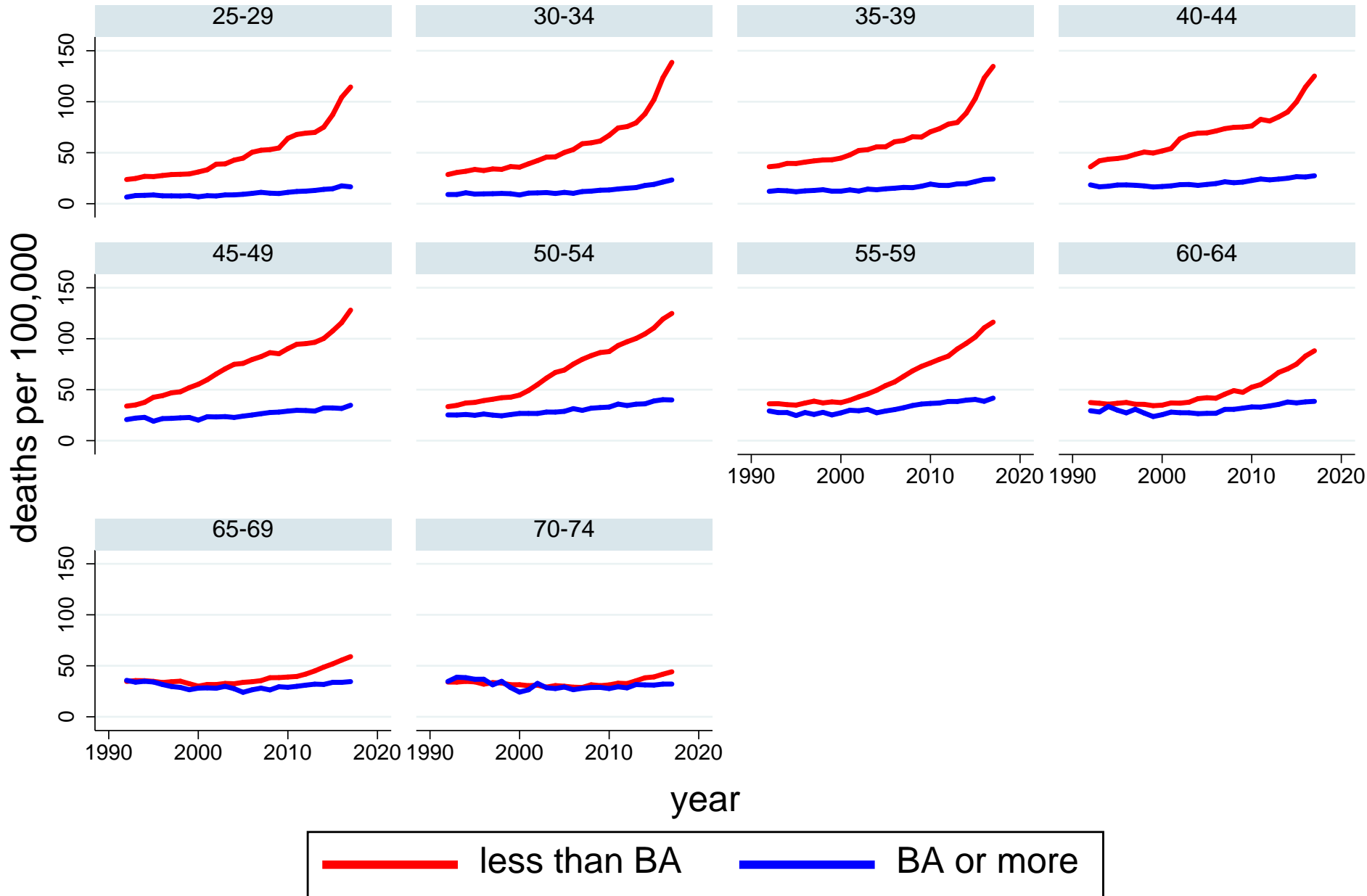
Life expectancy at birth



Source: Anne Case and Angus Deaton, Princeton University



Drug alcohol and suicide mortality, white non-Hispanics 1992-2017



Fact 3: Inequality, HC and Social Mobility - the 'Great Gatsby' curve

Generational earnings elasticity
(higher values imply lower mobility)

0.5

0.4

0.3

0.2

0.1

20

25

30

35

Income inequality (more inequality →)

Source: OECD

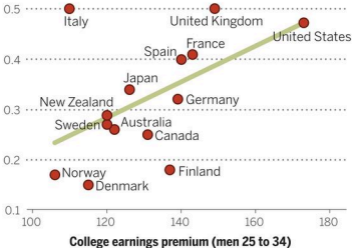


Generational earnings elasticity
(higher values imply lower mobility)

A



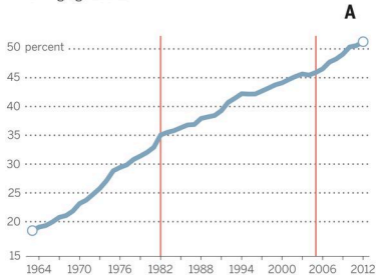
Generational earnings elasticity
(higher values imply lower mobility)



Fact 4: HC - a Demand vs Supply story (Goldin-Katz 2007, Autor 2014, Chiappori et al 2010)

- 1 Demand side
- 2 Supply side
- 3 The marriage market

College share of hours worked (%), 1963–2012:
All working-age adults



Historical College Enrollment

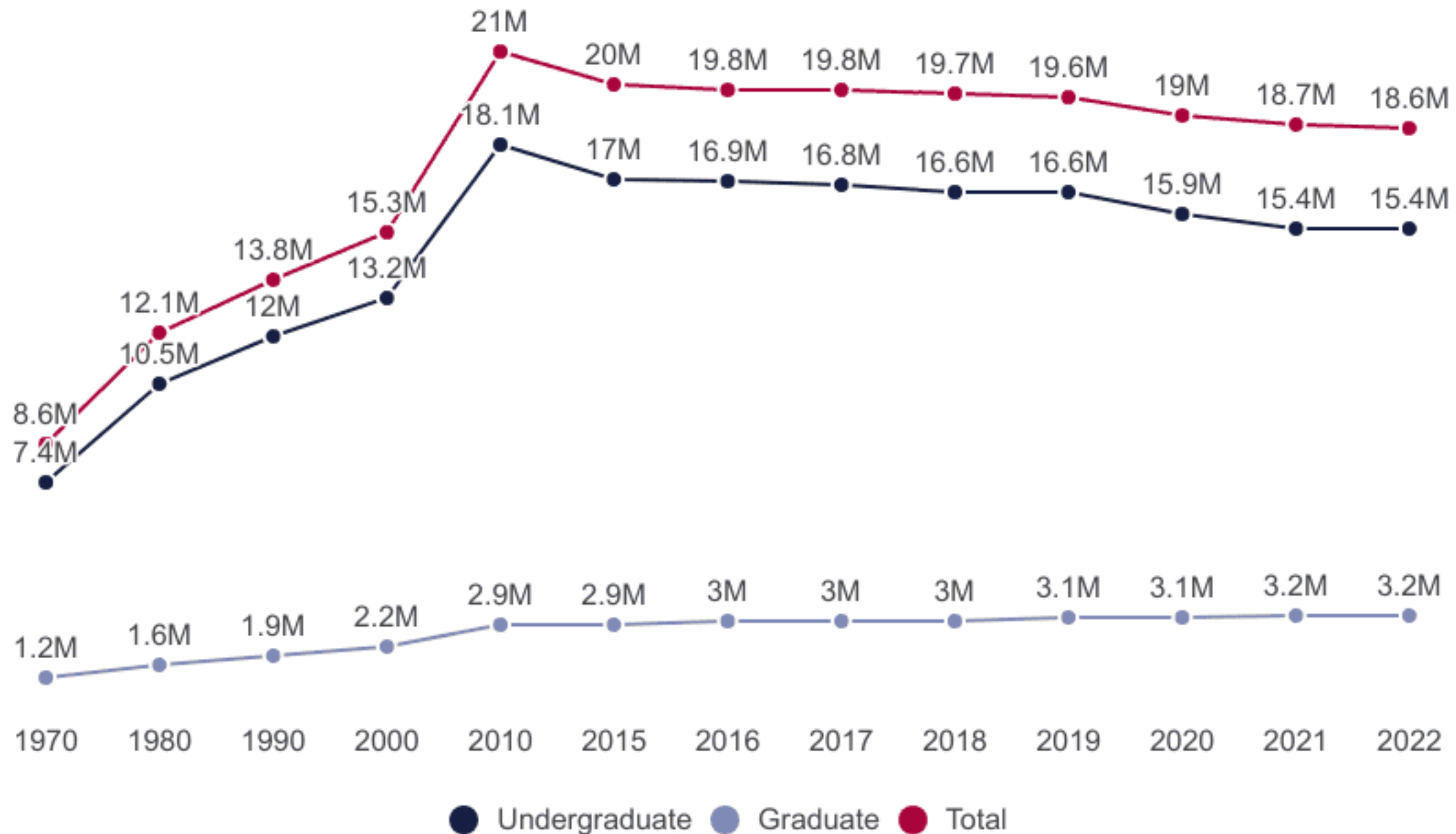
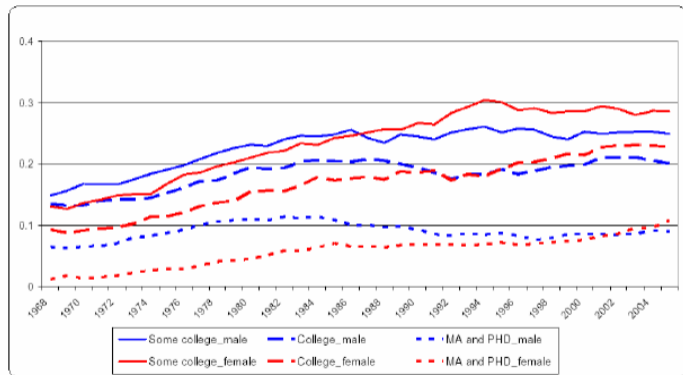


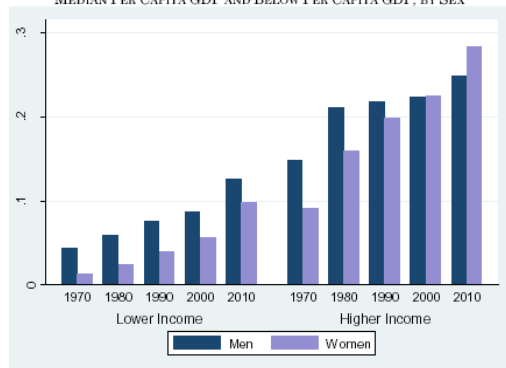
Figure 13: Completed Education by Sex, Age 30-40, US 1968-2005



Source: Current Population Surveys.

Education et sexe au niveau mondial

FIGURE 3: FRACTION OF 30- TO 34-YEAR-OLDS WITH COLLEGE EDUCATION, COUNTRIES ABOVE MEDIAN PER CAPITA GDP AND BELOW PER CAPITA GDP, BY SEX



Source: See Figure 1.

Marriage patterns of women

HSD HSG SC CG CG+

0.0 0.2 0.4 0.6 0.8

Born 1945–1947

Born 1973–1975

Woman: CG+



Woman: CG



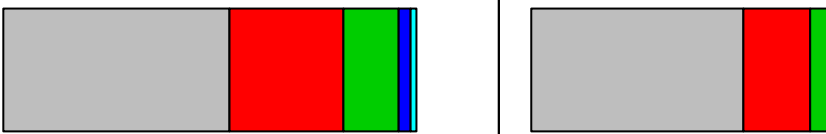
Woman: SC



Woman: HSG



Woman: HSD



0.0 0.2 0.4 0.6 0.8

Proportion

Marriage patterns of men

HSD HSG SC CG CG+

0.0 0.2 0.4 0.6 0.8

Born 1945–1947

Born 1973–1975

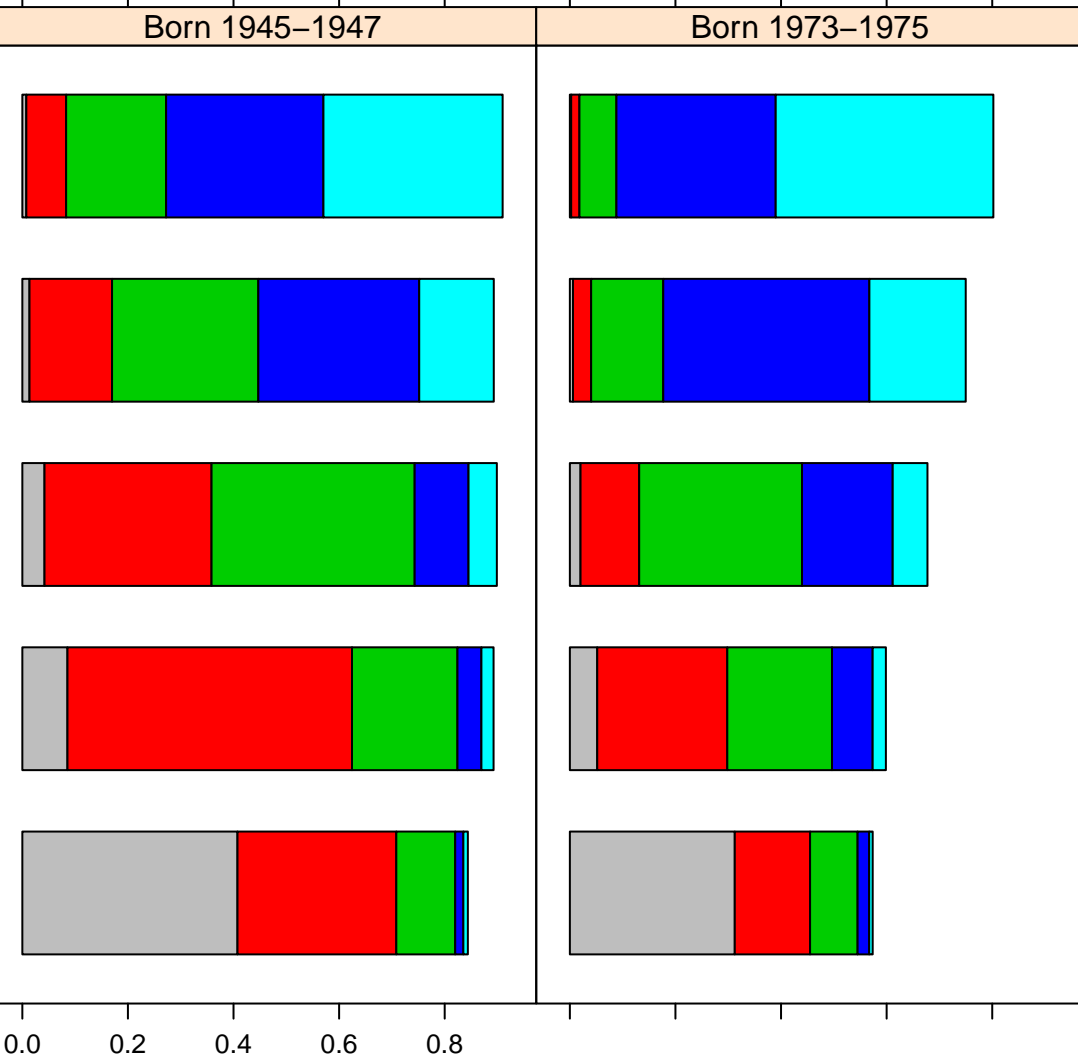
Man: CG+

Man: CG

Man: SC

Man: HSG

Man: HSD



Proportion

Fact 5: education, urbanization and vote in the US

- Urbanization (Glaeser 2019):
 - Wealth creation in urban areas
 - Skilled jobs tend to be found in urban areas
 - Educated people tend to be found in urban areas
- Votes (Sances 2019): the increasing role of education
- Votes and wealth creation (Brookings 2018)

Figure 7: Occupational Employment Shares among Working-Age Adults by Commuting Zone Population Density, 1970 – 2015: Level Relative to 1970 Mean

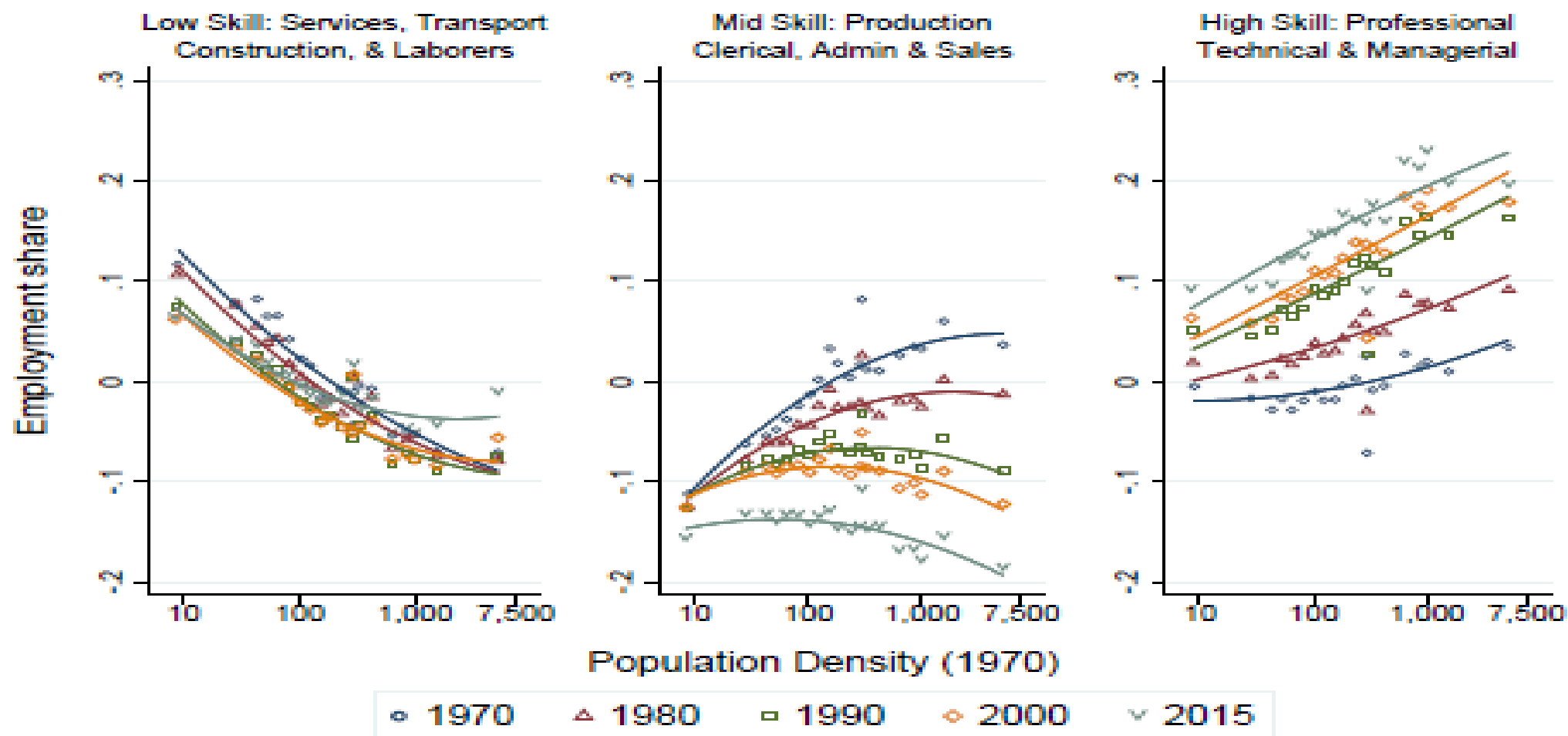


Figure is constructed using U.S. Census of Population data for 1970, 1980, 1990, and 2000, and pooled American Community Survey (ACS) data for years 2014 through 2016, sourced from IPUMS Ruggles et al. (2018). Occupational classifications are harmonized across decades using the classification scheme developed by Dorn (2009) and distilled to the level of 722 consistent local labor markets (AKA, Commuting Zones) following the procedures in Autor and Dorn (2013). Each plotted point represents approximately 5 percent of the working-age population in the relevant year.

Figure 9: College Degree vs. High School Dropout Share of Working Age Adults, 1970 - 2015

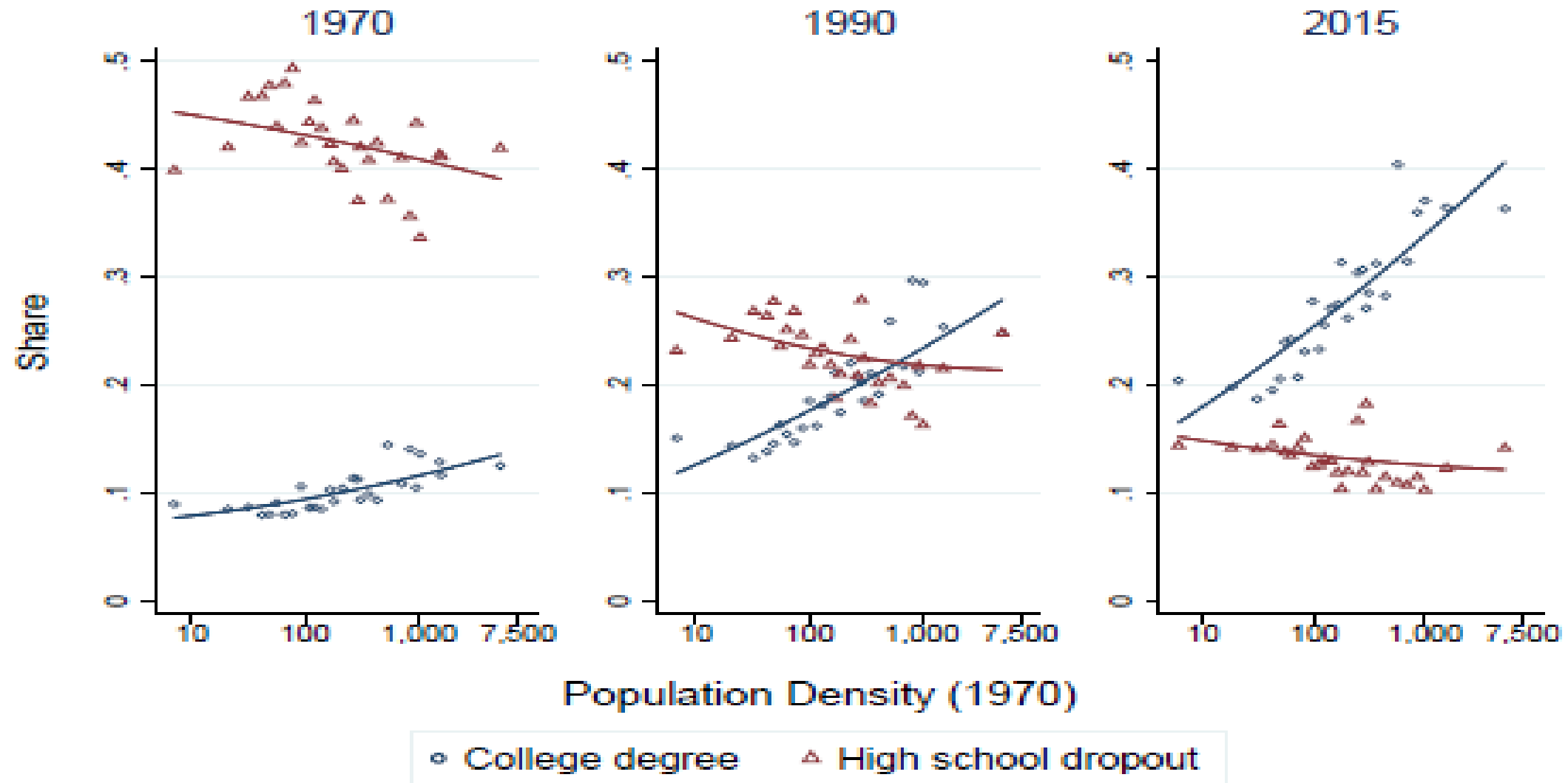
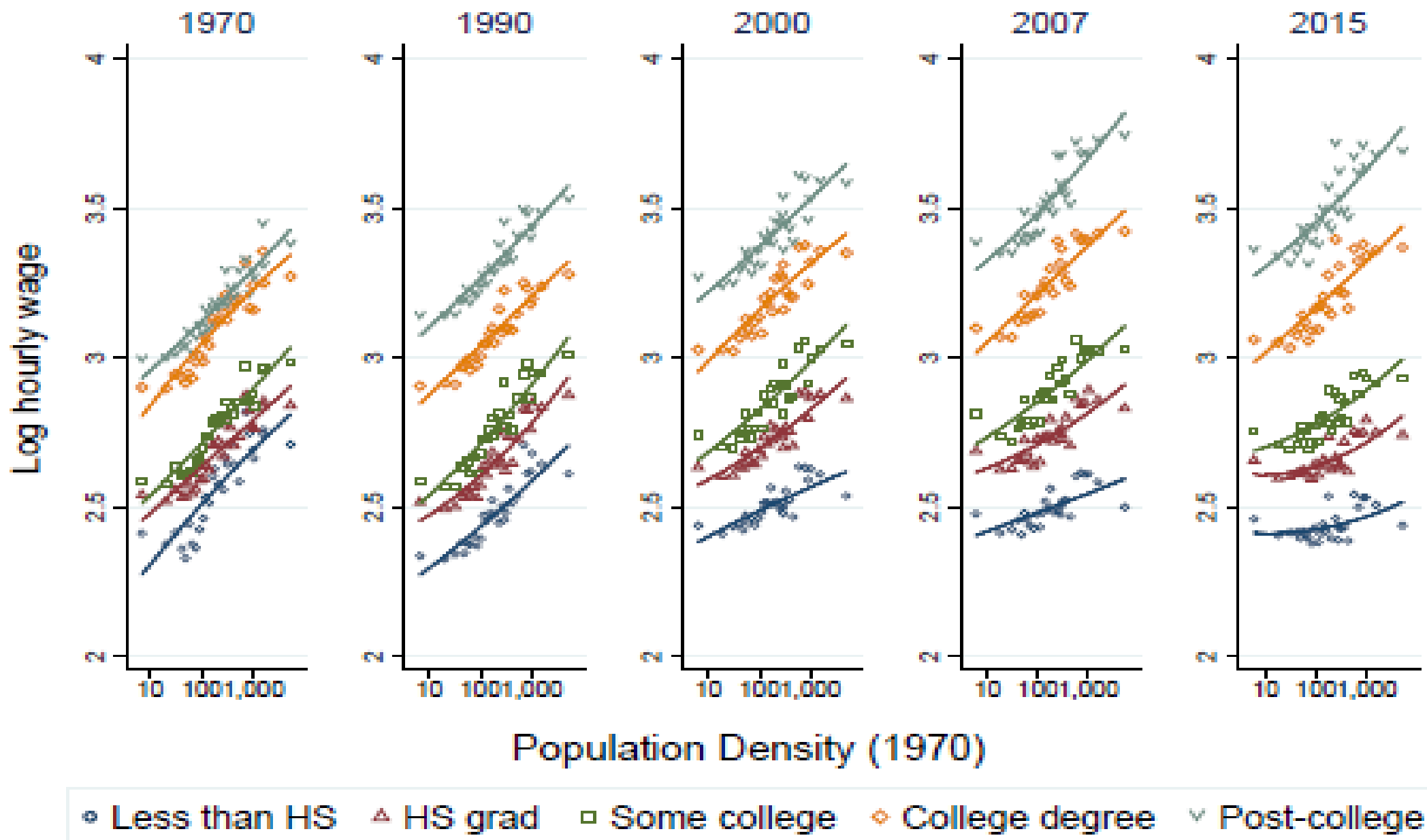


Figure plots the share of working-age adult residents by CZ who have either four-plus years of college or less than a high school degree. Source: U.S. Census of Population data for 1970 and 1990 and pooled American Community Survey (ACS) data for years 2014 through 2016, sourced from IPUMS Ruggles et al. (2018). Each plotted point represents approximately 5 percent of the working-age population in the relevant year.

Figure 15: Real Log Hourly Wages by Detailed Education Category, 1970 - 2015

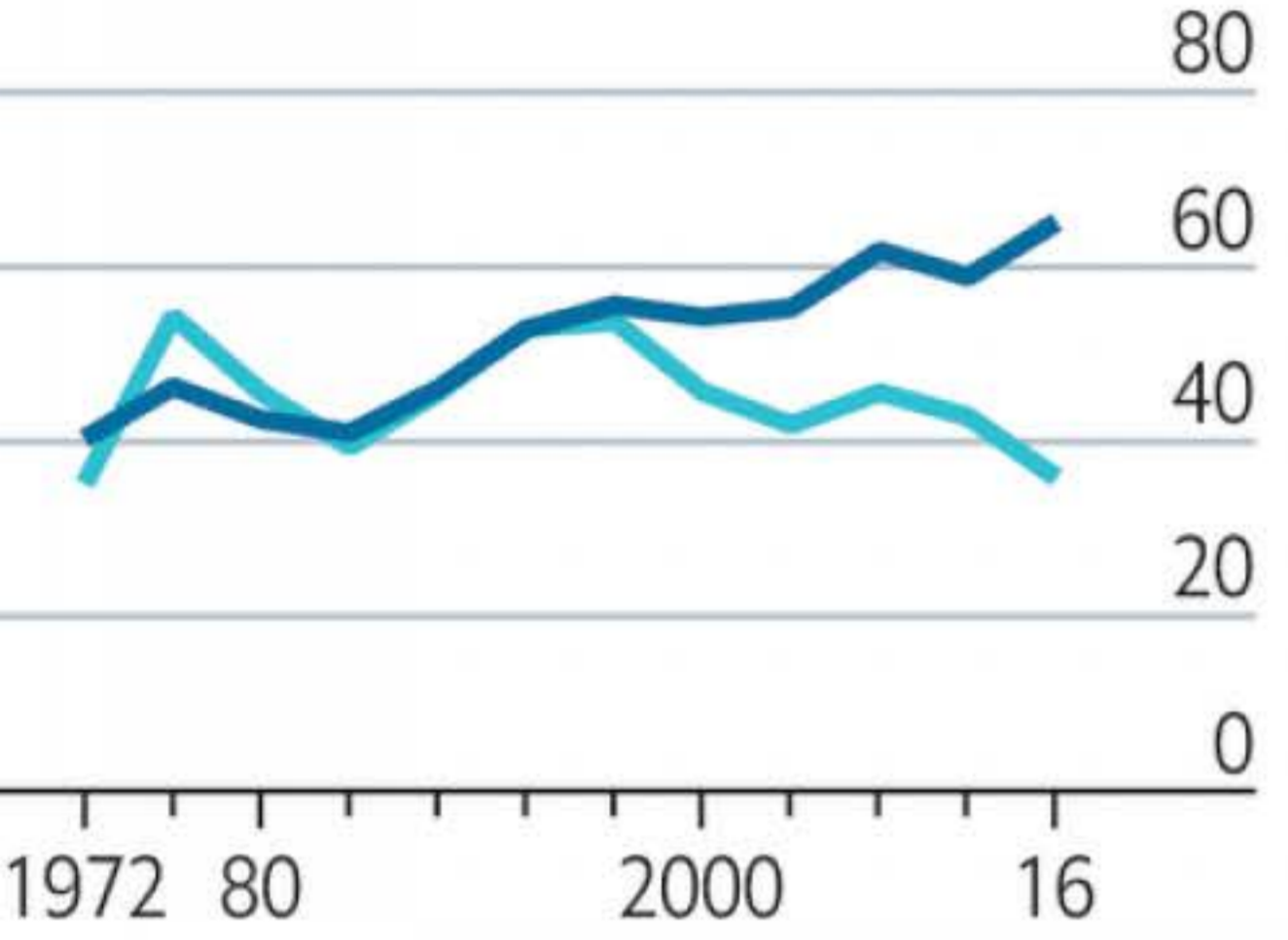


A matter of degrees

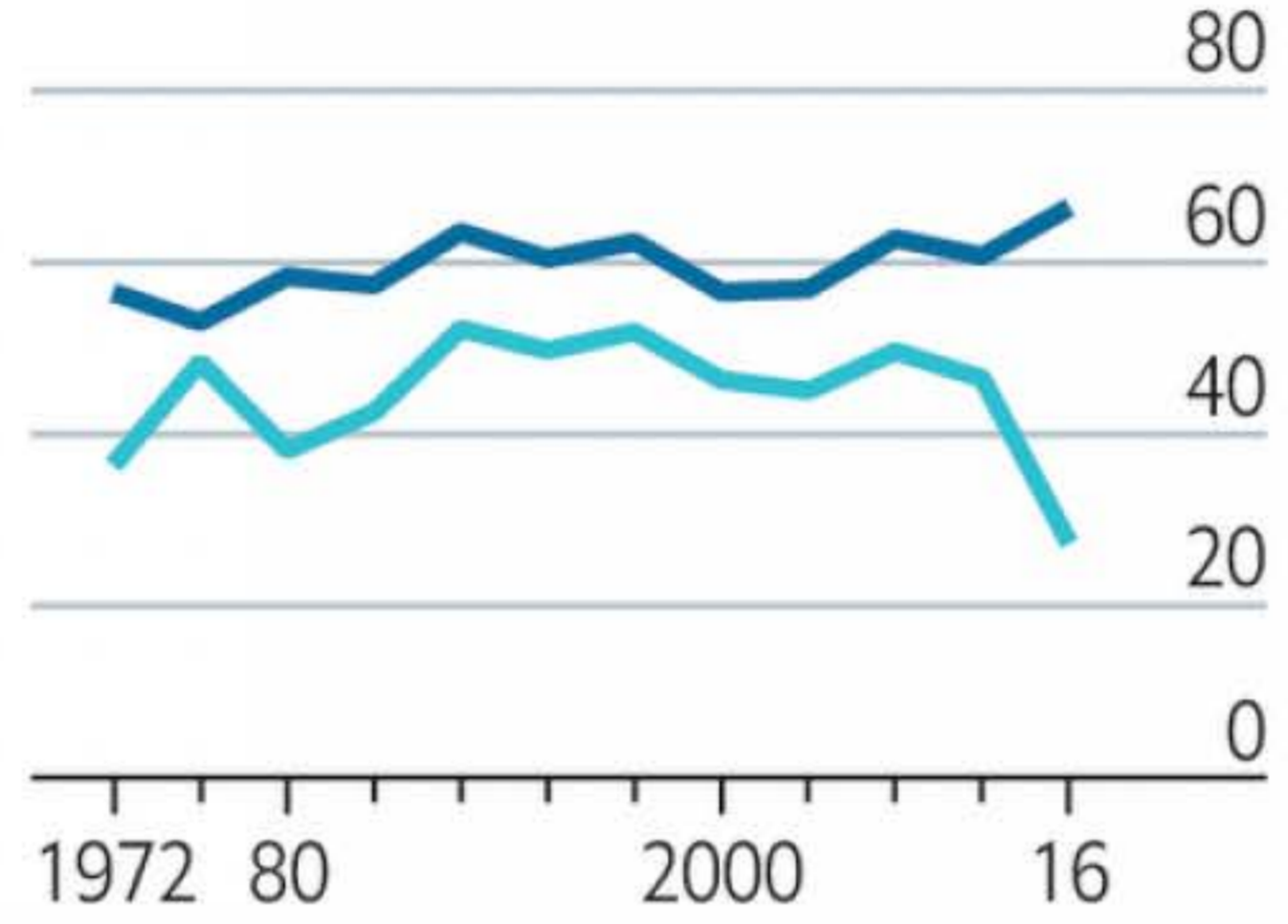
United States, Democratic presidential vote share, %
By county-level educational attainment

High-education counties
Low-education counties

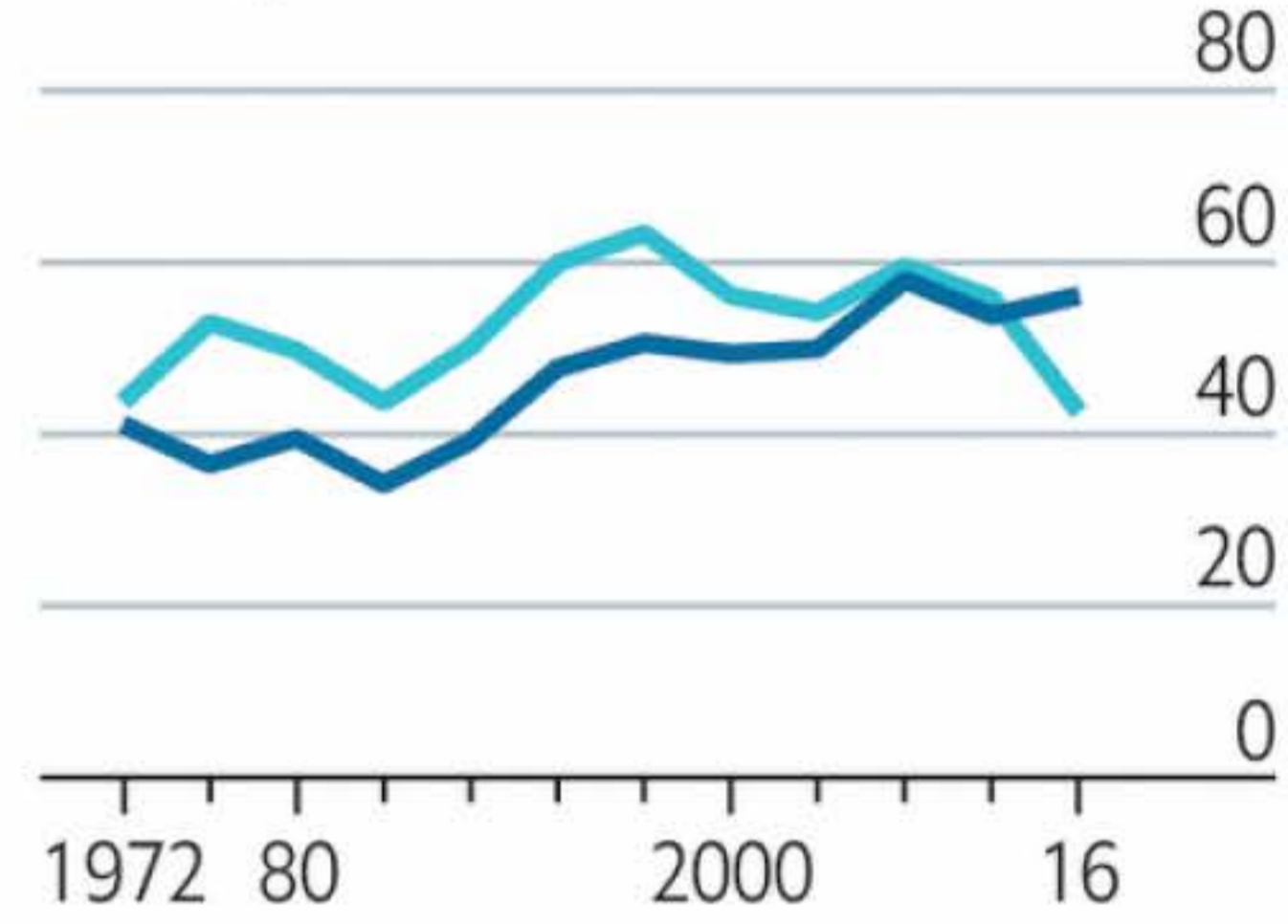
United States



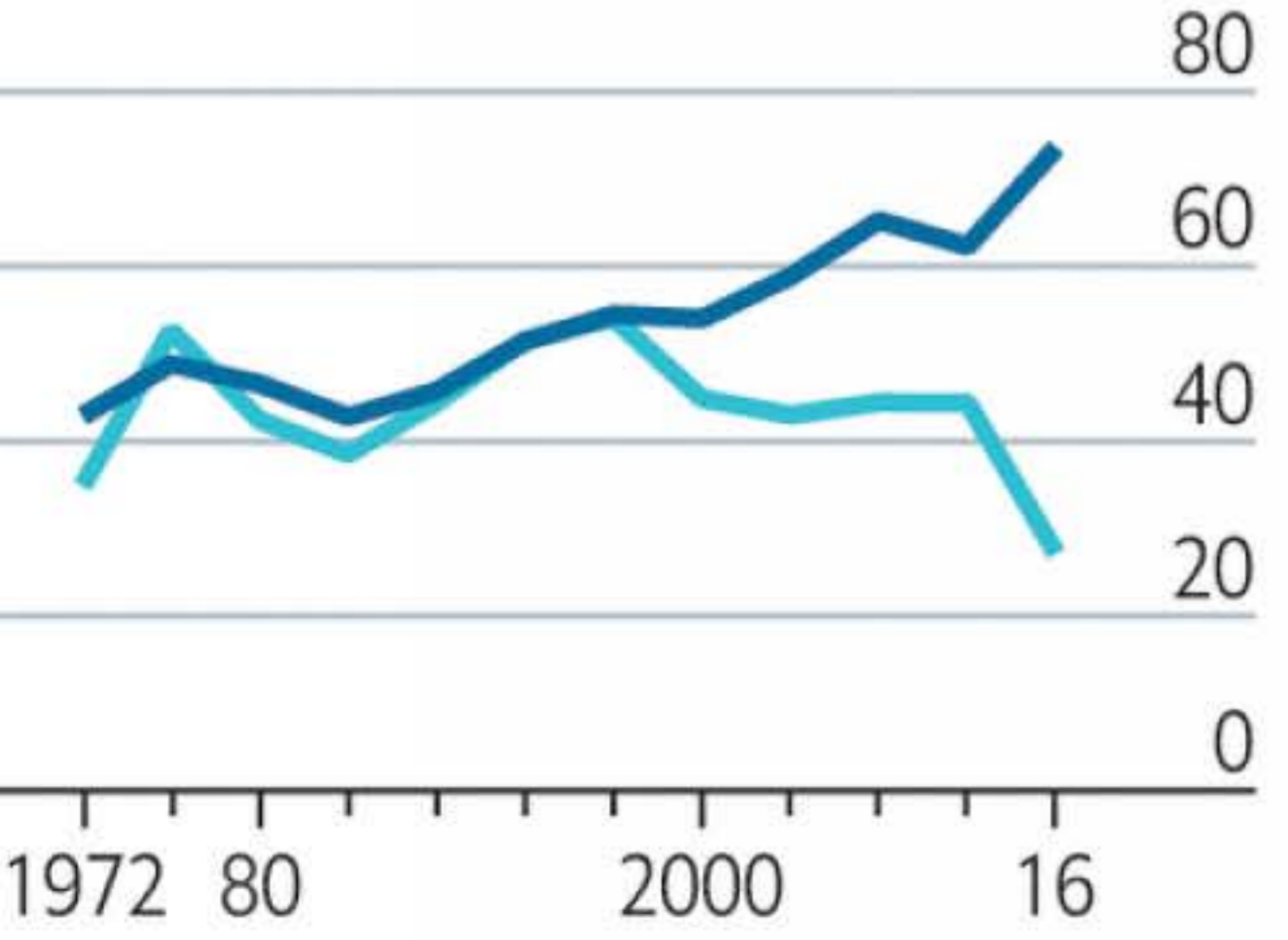
Iowa



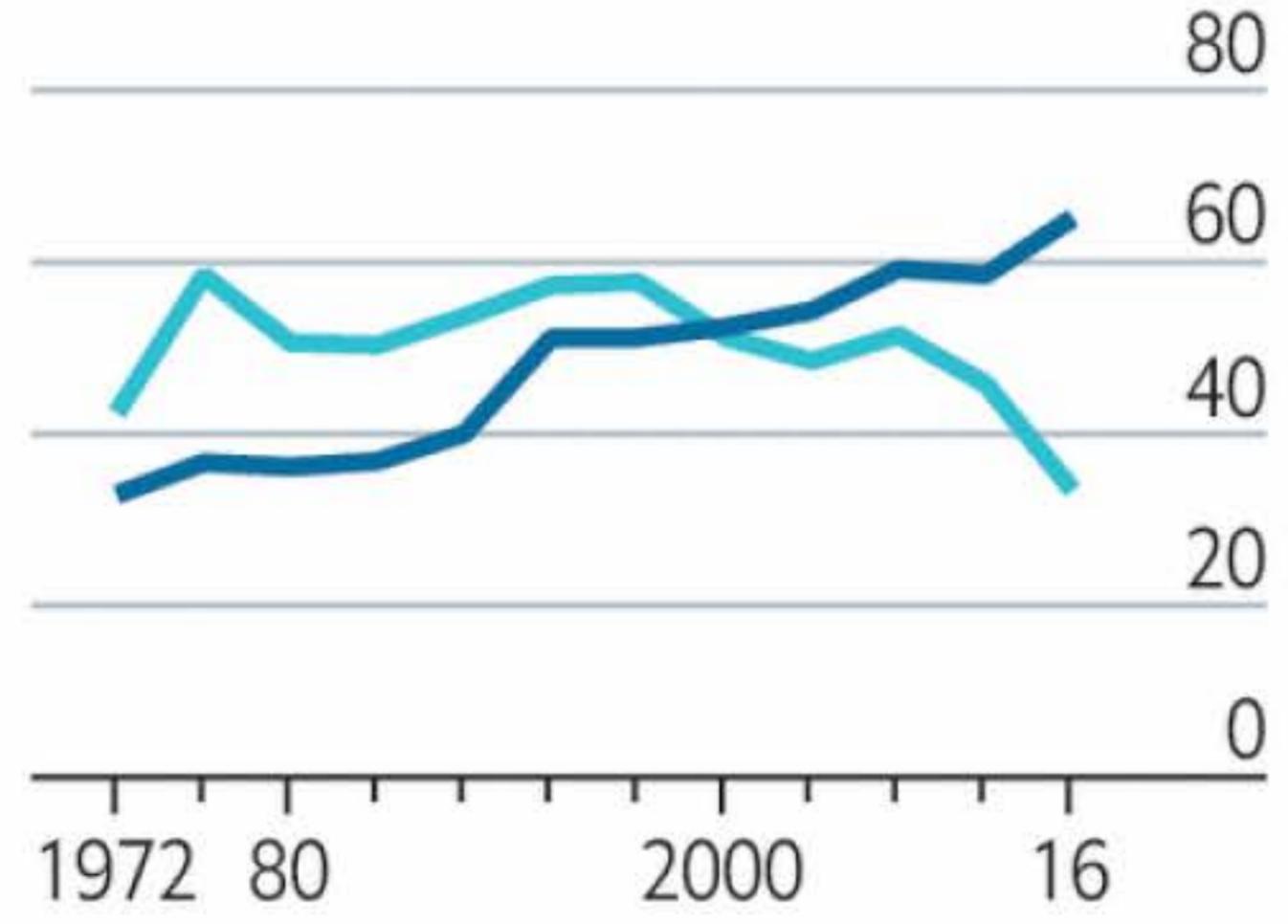
Michigan



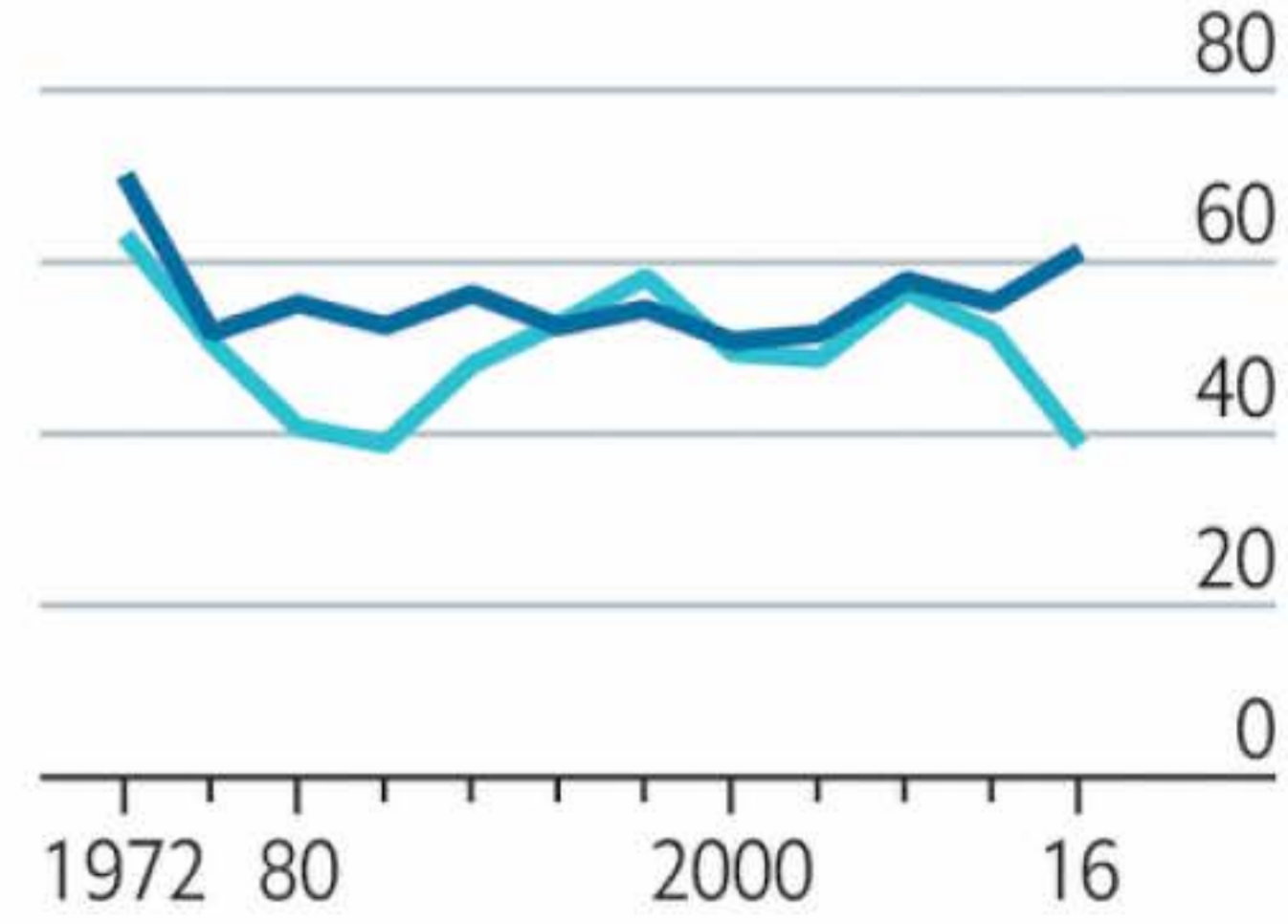
Ohio



Pennsylvania



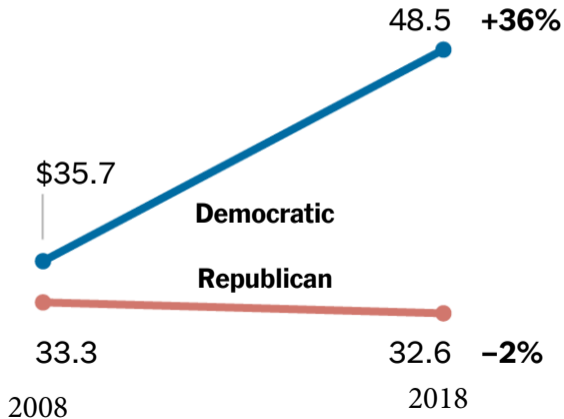
Wisconsin



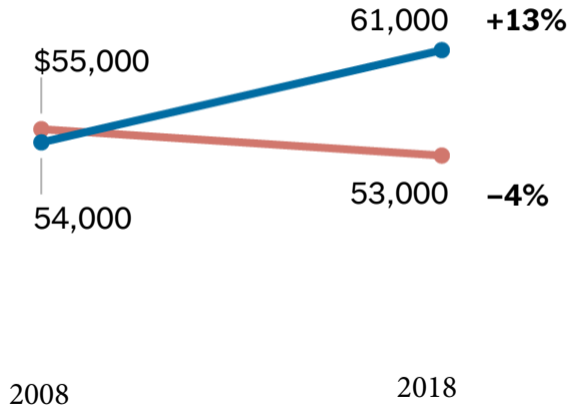
Source: "How Unusual Was 2016? Flipping Counties, Flipping Voters, and the Education-Party Correlation since 1952", by Michael W. Sances, 2019, *Perspective on Politics*

G.D.P. PER DISTRICT

In billions.



MEDIAN HOUSEHOLD INCOME PER DISTRICT

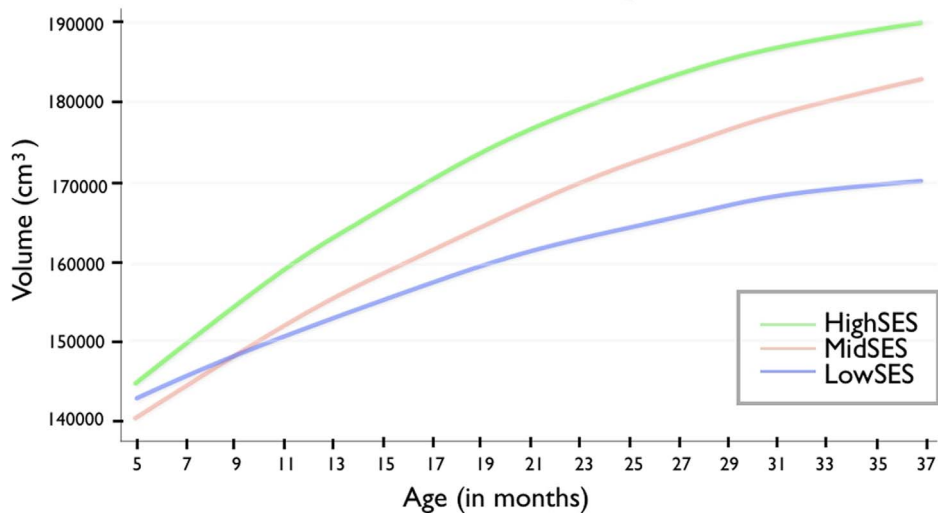
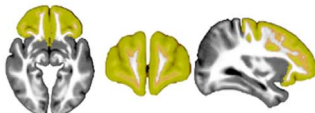


Source: Brookings

Fact 6: Assortative matching and HC investment in children

- Increased assortativeness on HC
- More investment into children by educated parents
- Towards an 'inequality spiral' ?

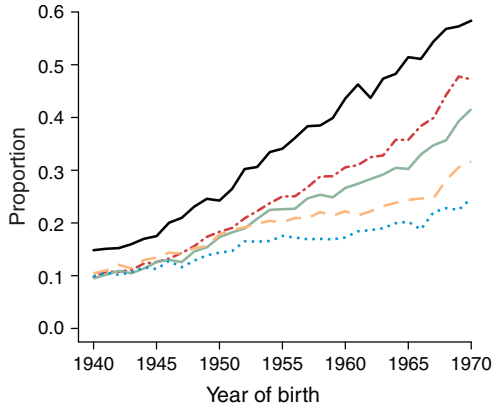
Frontal Gray Matter



Source: Hanson JL, Hair N, Shen DG, Shi F, Gilmore JH, et al. (2013) Family Poverty Affects the Rate of Human Infant Brain Growth. PLoS ONE 8(12): e80954.

doi:10.1371/journal.pone.0080954

Panel A. Men



Panel B. Women

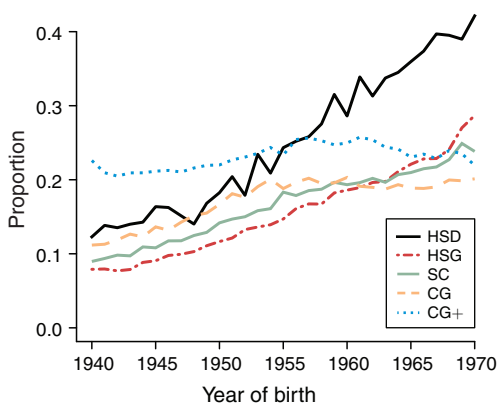
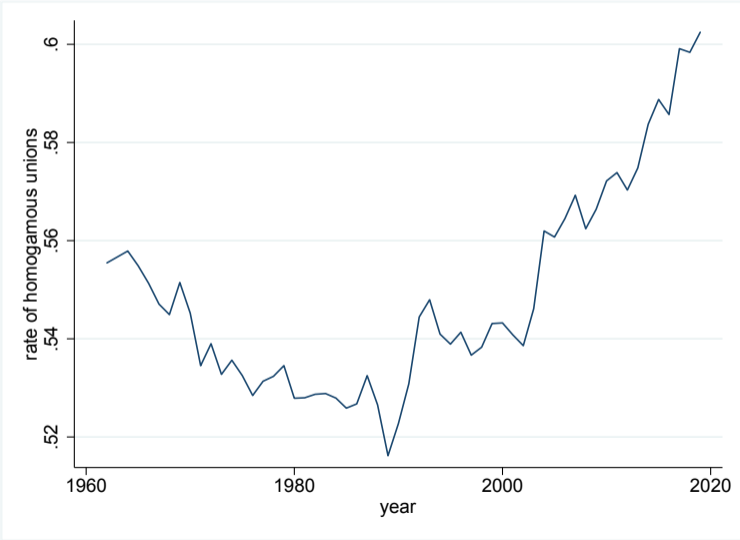


FIGURE 3. NEVER-MARRIED WHITE MEN AND WOMEN

Figure 4: Rate of homogamous marriages among 35-44 years old over time

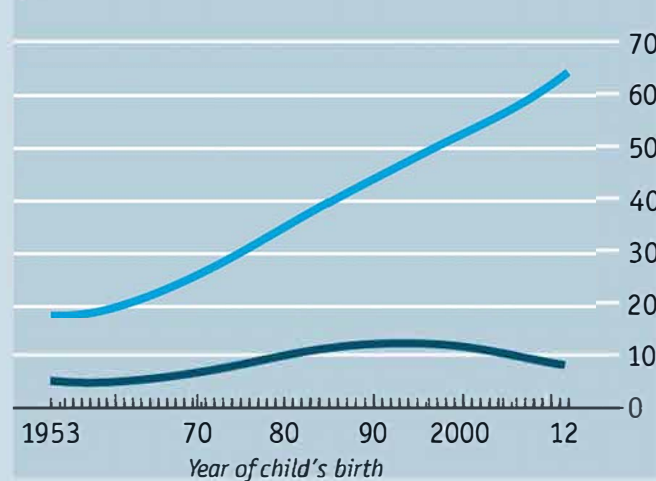


The new class divide

United States

Children aged 0-7 living in a single-parent family

%

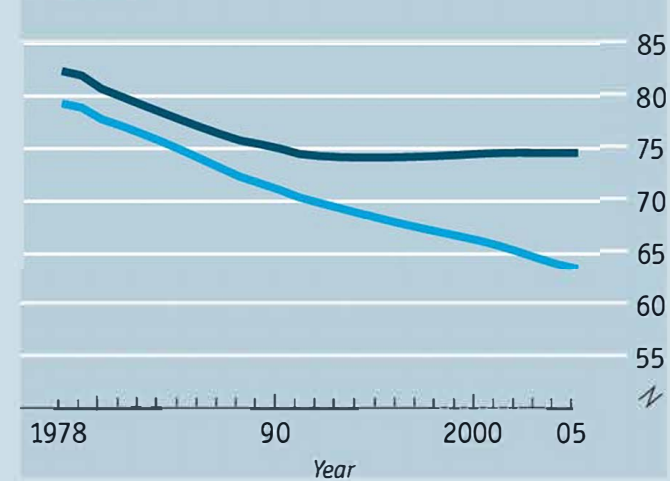


— Parents with bachelor's degree or better

— Parents with no more than high-school education

"Our whole family usually eats dinner together"

% agreeing



Time spent by both parents in developmental child care

Children aged 0-4, minutes per day



Likelihood of graduating from college*

Child's middle-school (8th grade) test scores:

■ Low ■ Middle ■ High



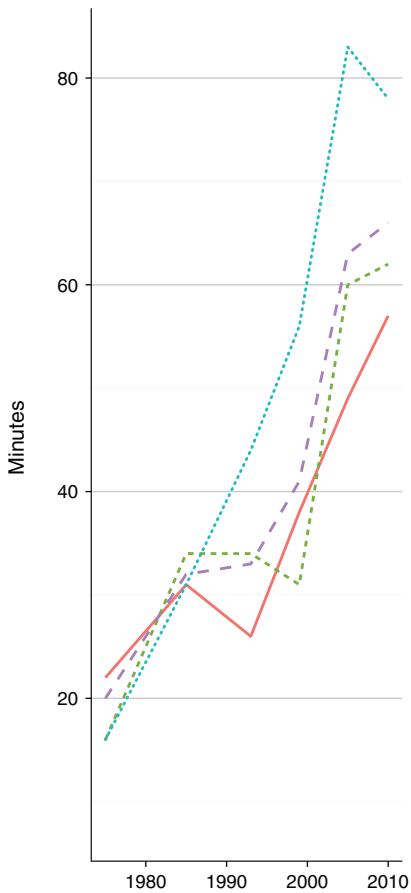
Source: "Our Kids", Robert Putnam E

*College graduation 2000, test scores 1988

	USA		Canada		UK	
Year of survey	1975	2003	1971	1998	1975	2000
Domestic chores						
Married men, child 5-17	1.18	1.52	1.56	1.63	0.97	1.70
Married women, child 5-17	3.63	2.83	4.55	3.29	4.01	3.37
Married men, child < 5	1.10	1.38	1.83	1.66	0.90	1.42
Married women, child < 5	3.67	2.64	4.79	3.03	4.13	3.03
Child care						
Married men, child 5-17	0.20	0.57	0.14	0.41	0.06	0.26
Married women, child 5-17	0.65	1.13	0.64	0.77	0.30	0.58
Married men, child < 5	0.40	1.24	1.21	1.47	0.28	1.04
Married women, child < 5	1.63	2.67	2.16	2.97	1.28	2.57

Table 1: Time use (Source: Browning, Chiappori and Weiss 2015)

Panel A. Mothers



Panel B. Fathers

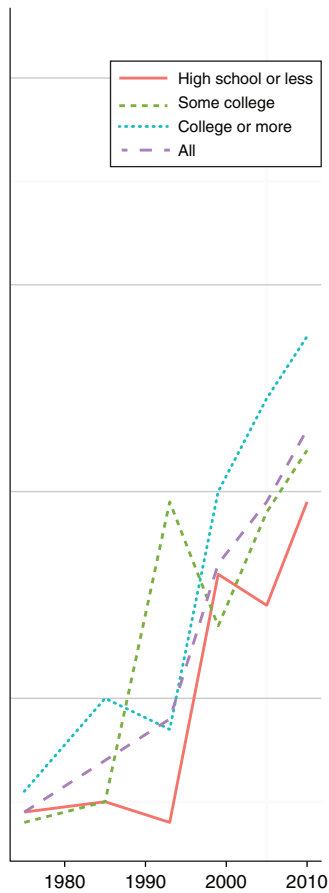


FIGURE 14. AVERAGE MINUTES SPENT DAILY IN DEVELOPMENTAL CHILD CARE, UNITED STATES

- Inequality in the developed world, 1980-2010: **Human capital and education**
- ... but things may be evolving!
- Crucial role played by **the family**
- 'Inequality spiral': **investing early in children's life!**

