

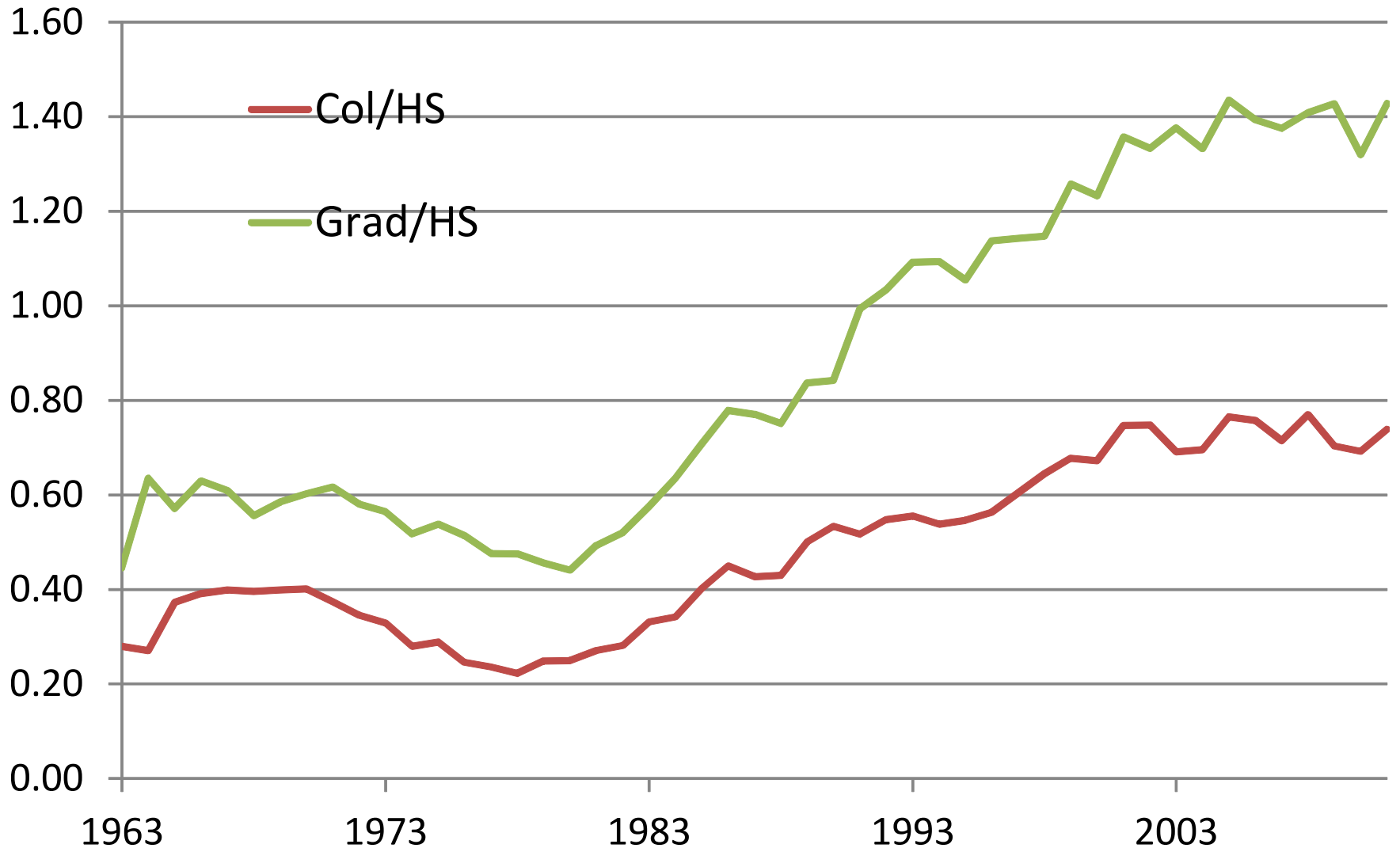
Income Inequality, Human Capital and Growth

Kevin M. Murphy

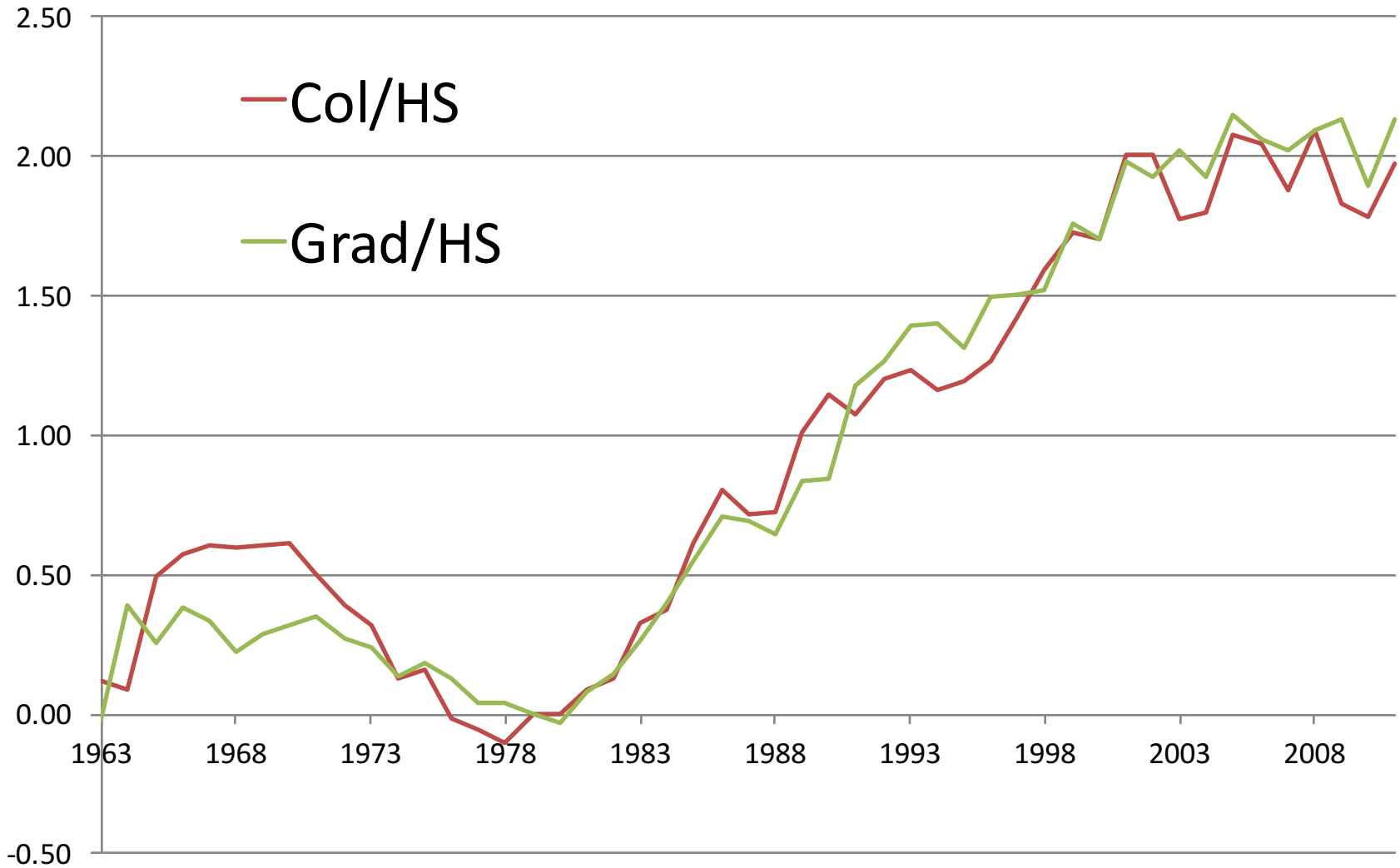
06-27-2016

Returns to Schooling Have Been Rising

Education Premiums

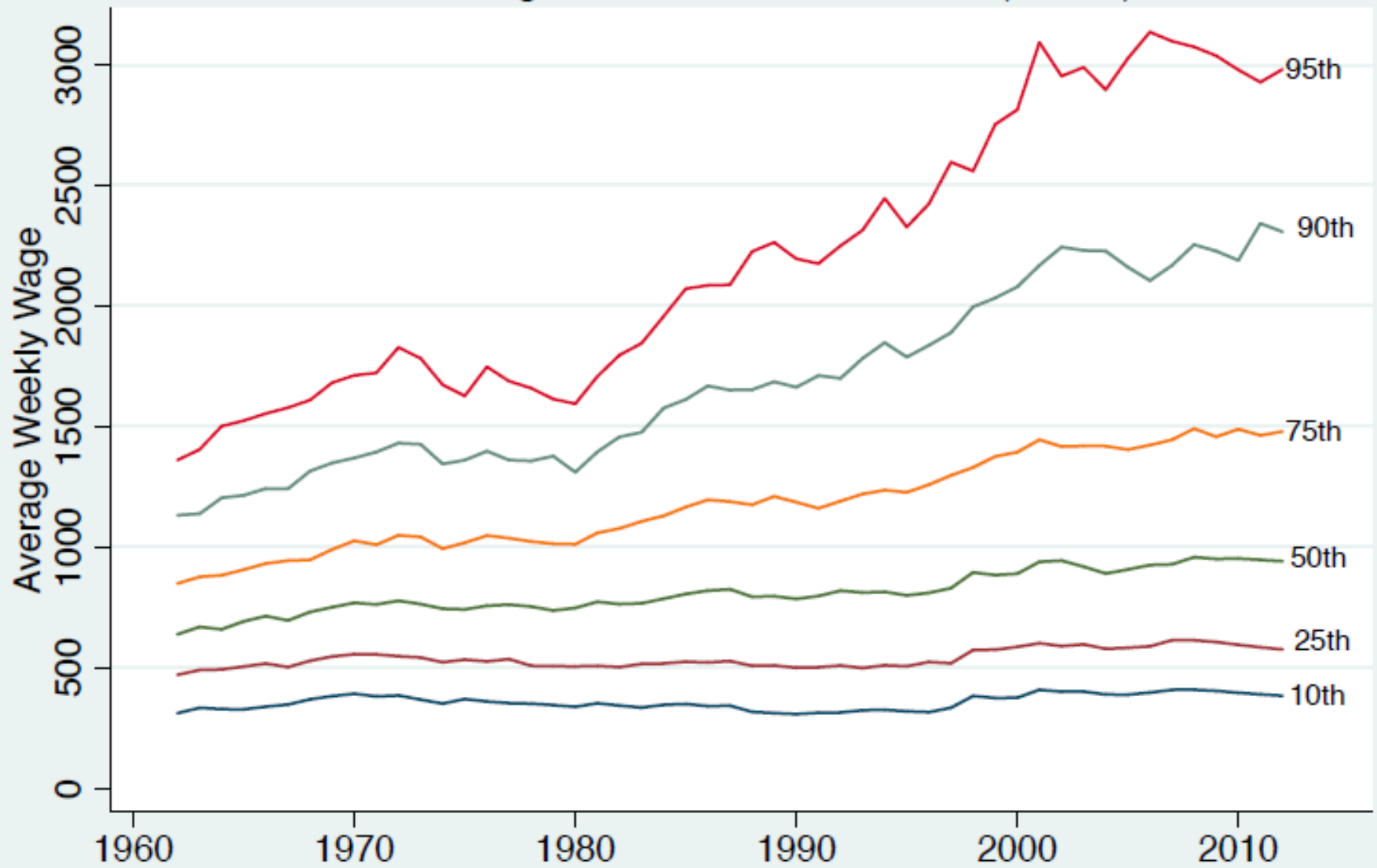


Scaled Education Premiums (Base = 1979)

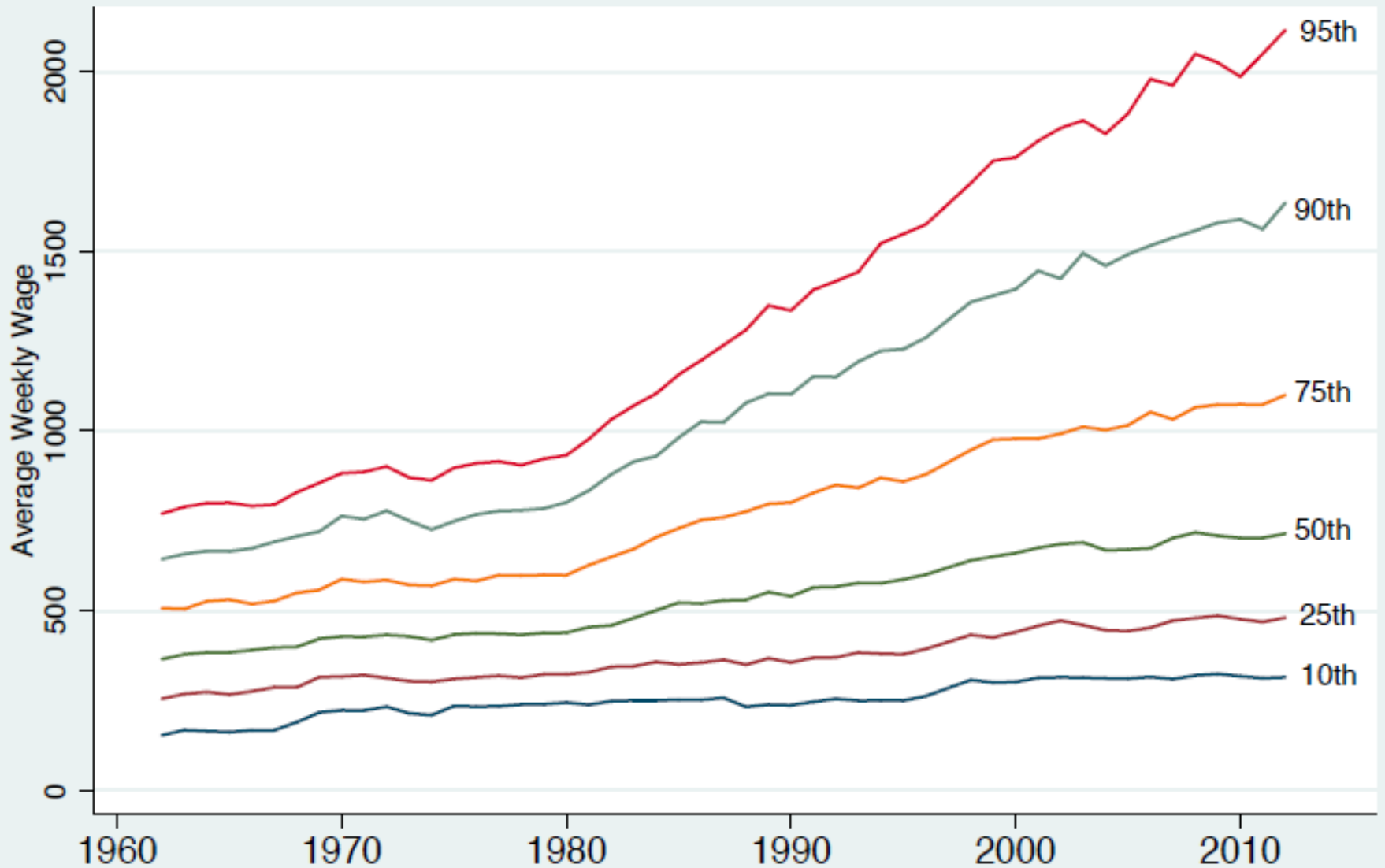


Overall Inequality has Been Rising

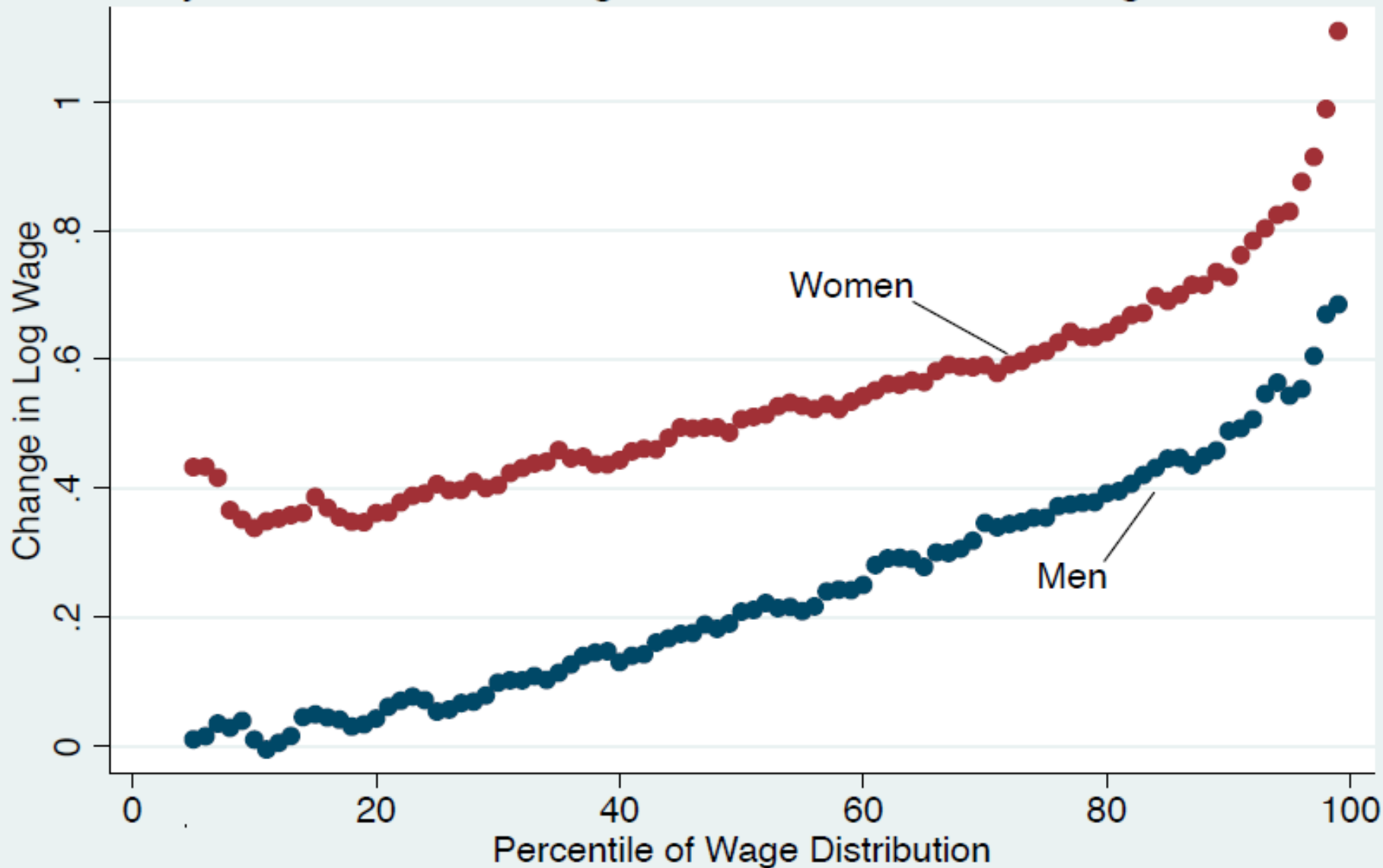
Men's Average Weekly Wages, Selected Percentiles of the Wage Distribution: 1962-2012 (\$2012)



Women's Average Weekly Wages, Selected Percentiles of the Wage Distribution: 1962-2012, (\$2012)

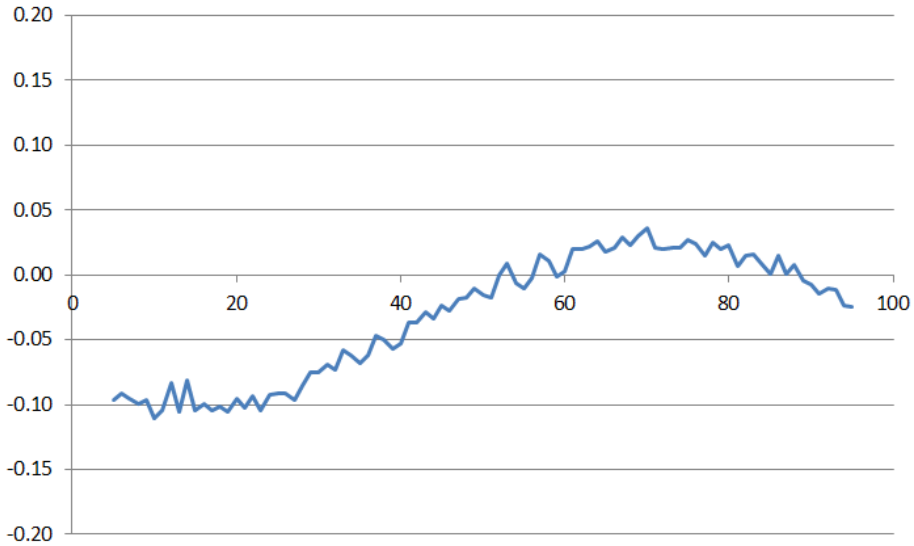


Growth in Men's and Women's Log Weekly Wages
by Percentiles of the Wage Distribution, 1970-72 through 2010-12

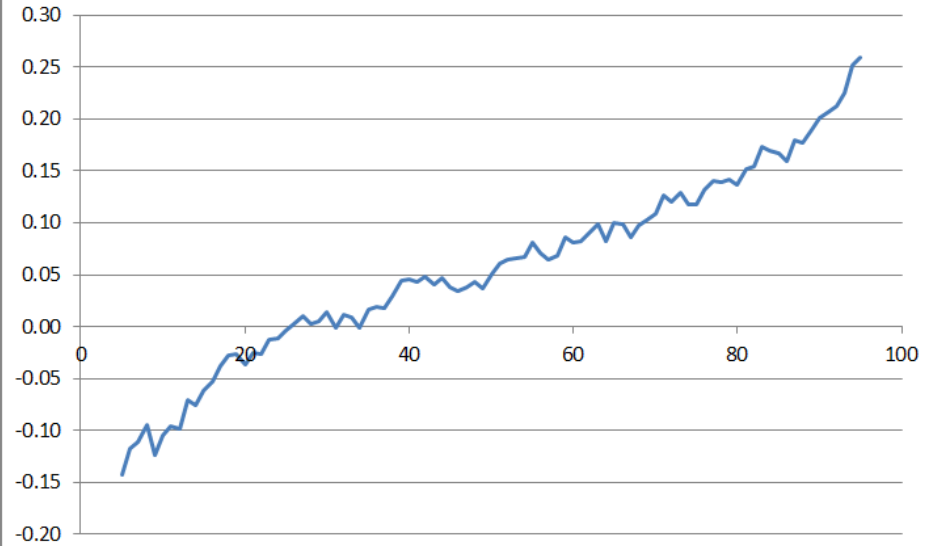


Wage Growth by Percentile by Decade (men)

Changes in Log Wage by Percentile 1972-1982



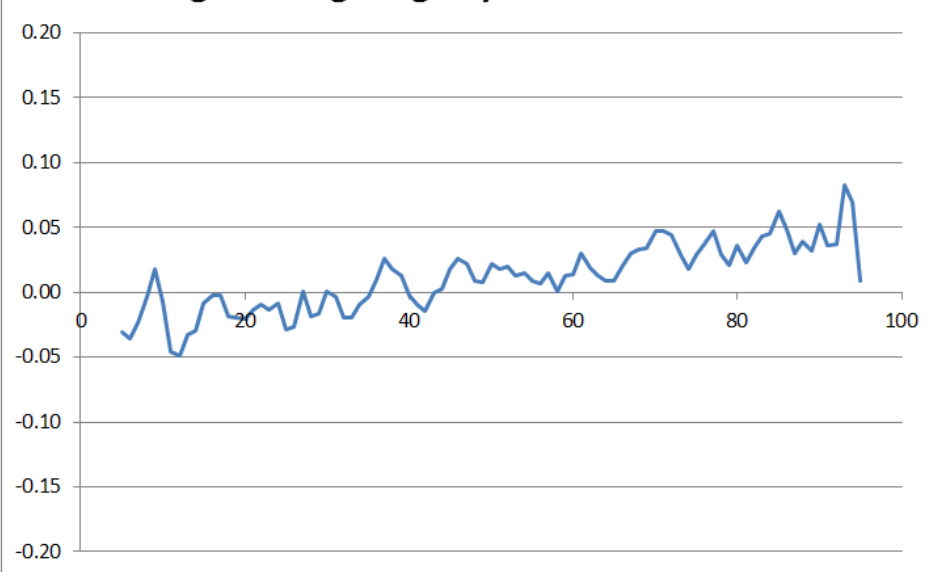
Changes in Log Wage by Percentile 1982-1992



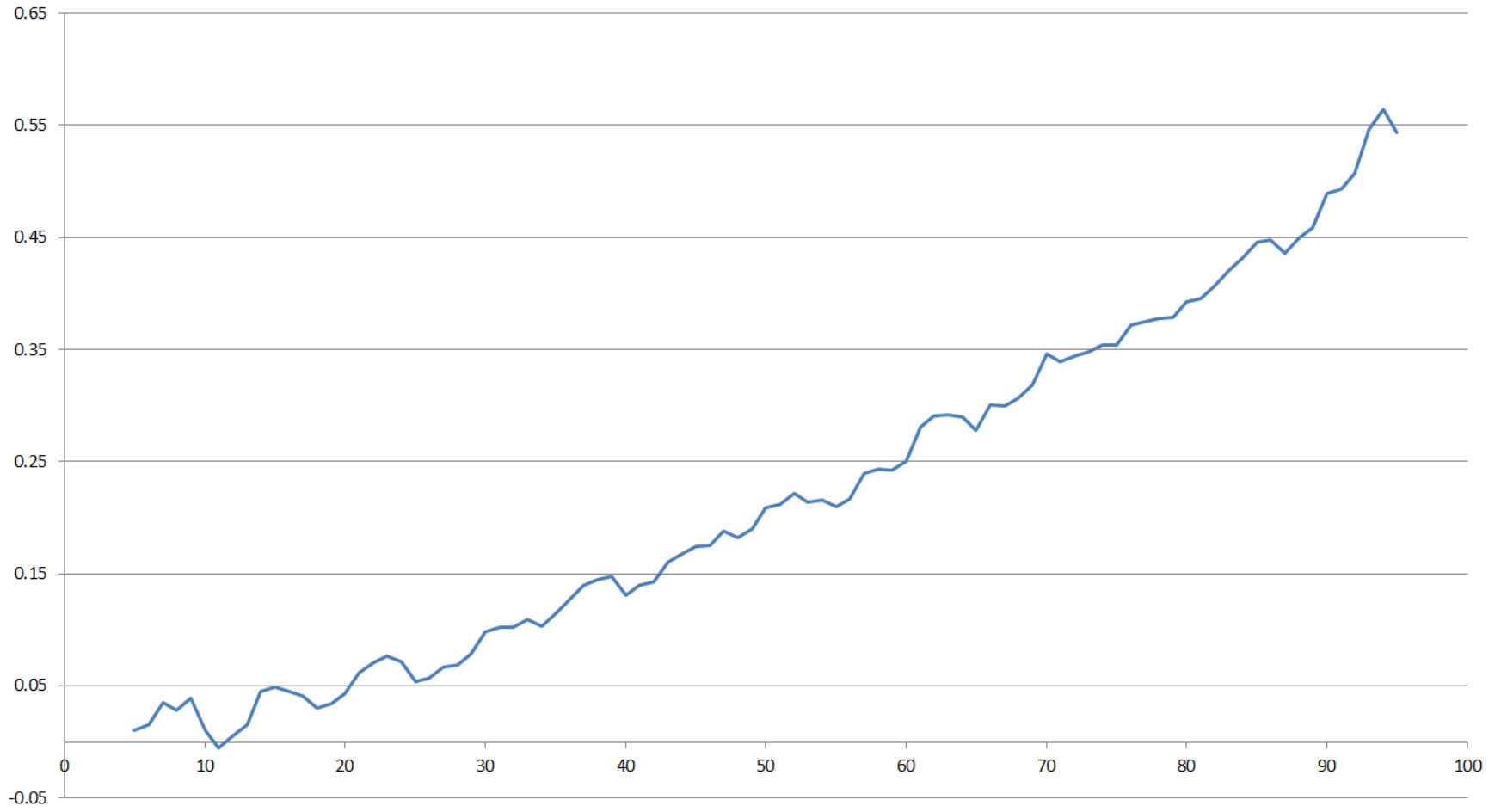
Changes in Log Wage by Percentile 1992-2002



Changes in Log Wage by Percentile 2002-2012

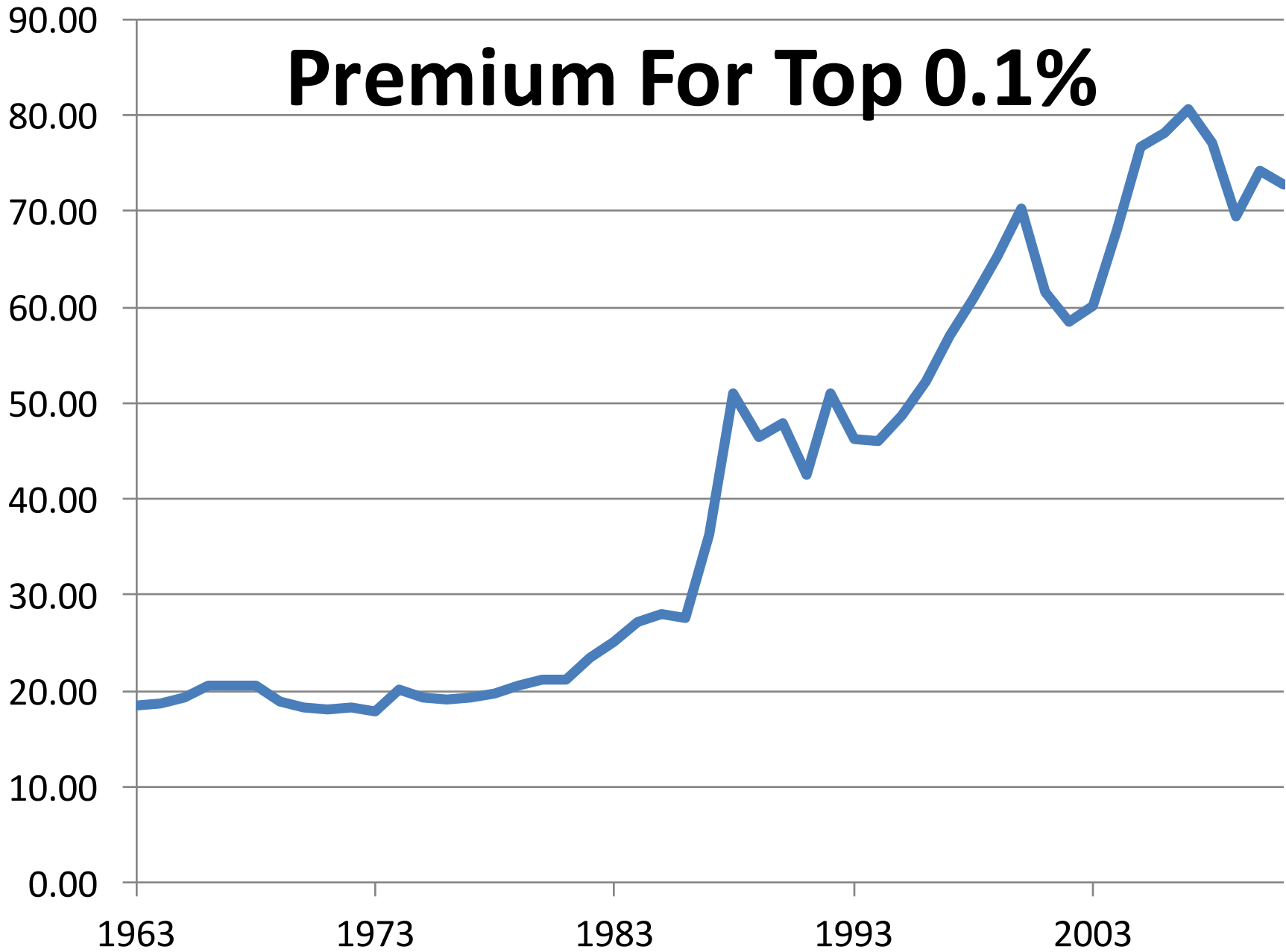


Changes in Log Wage by Percentile 1972-2012 (men)

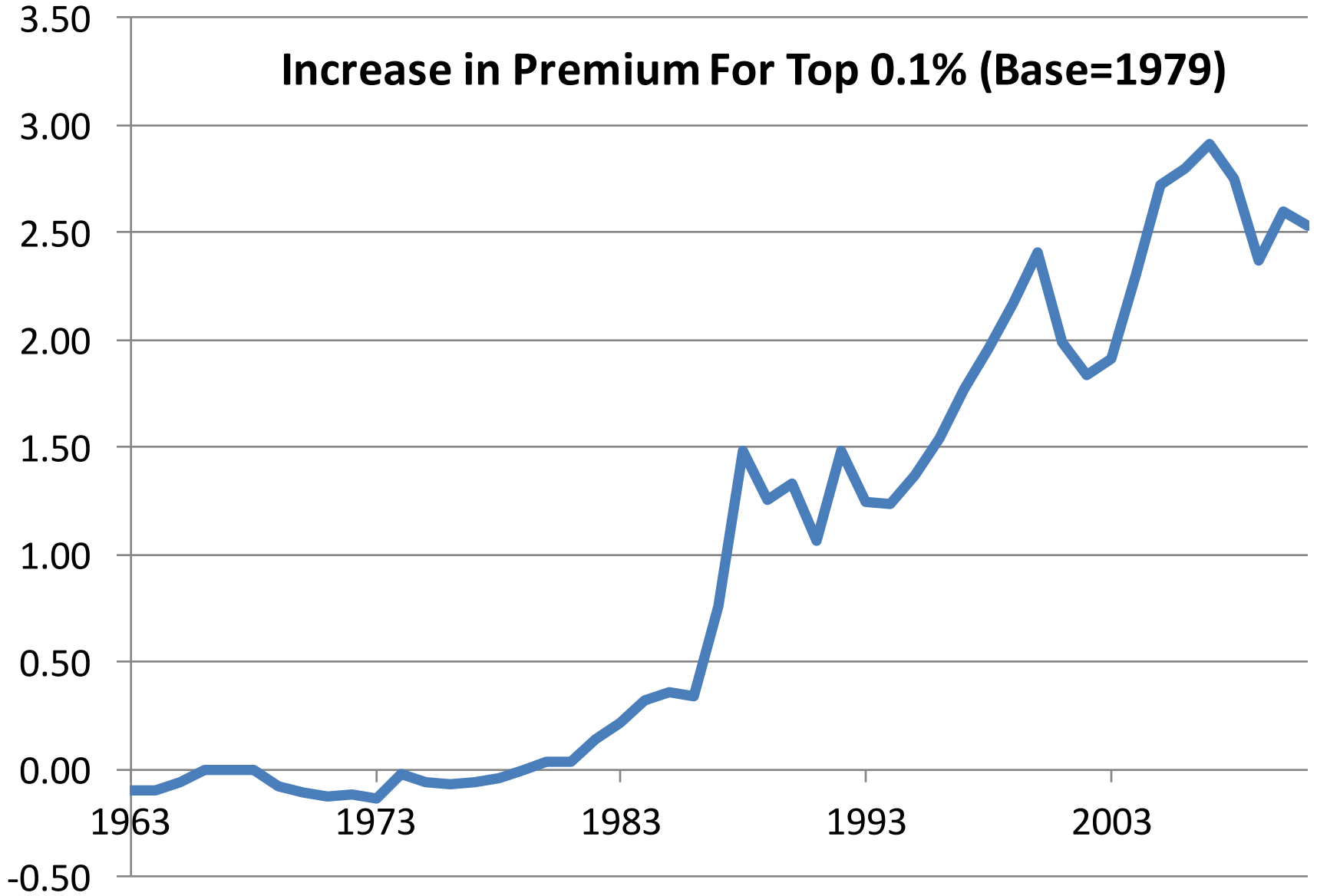


What about the 1% vs the 99%?

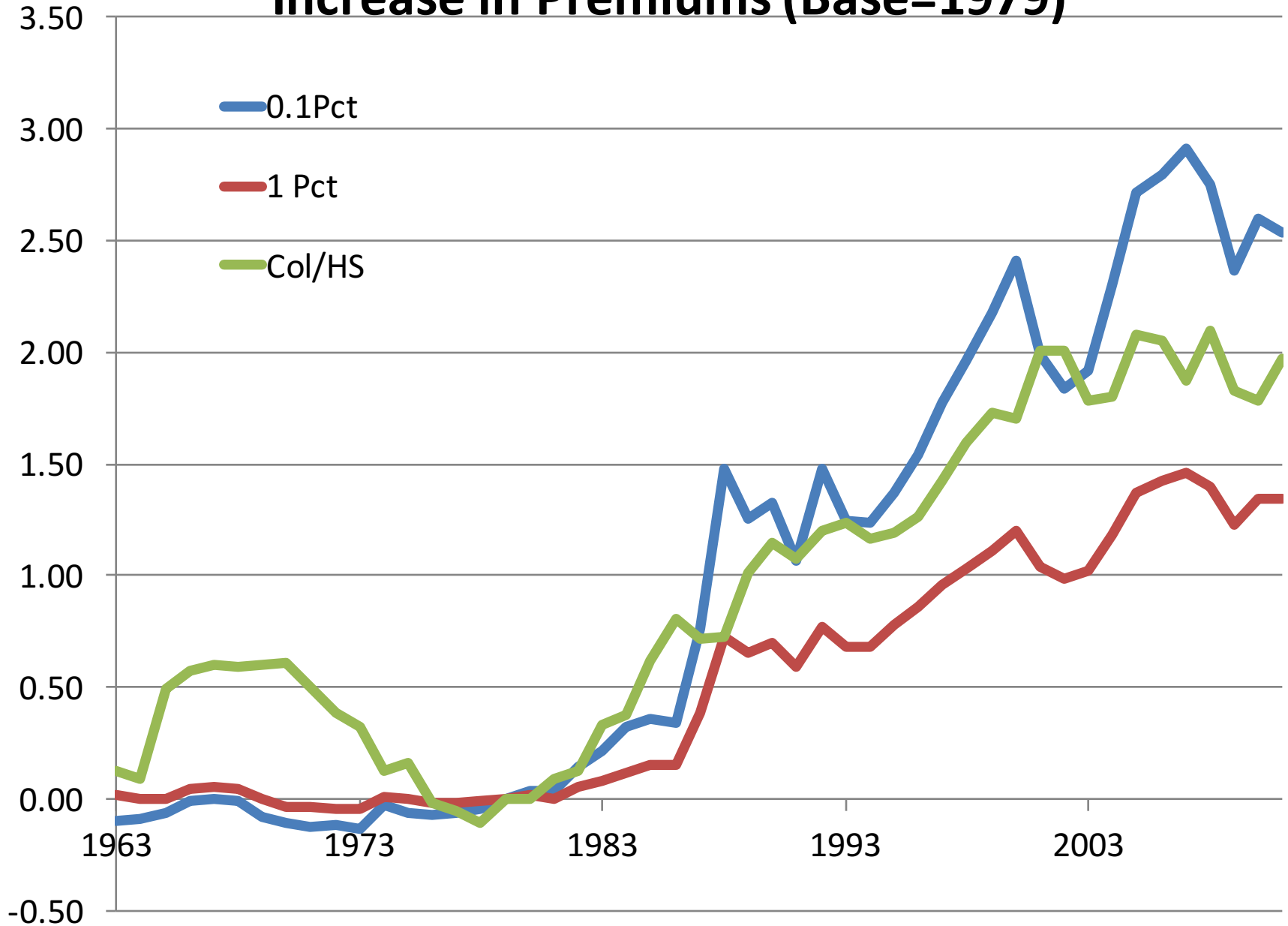
Premium For Top 0.1%



Increase in Premium For Top 0.1% (Base=1979)



Increase in Premiums (Base=1979)

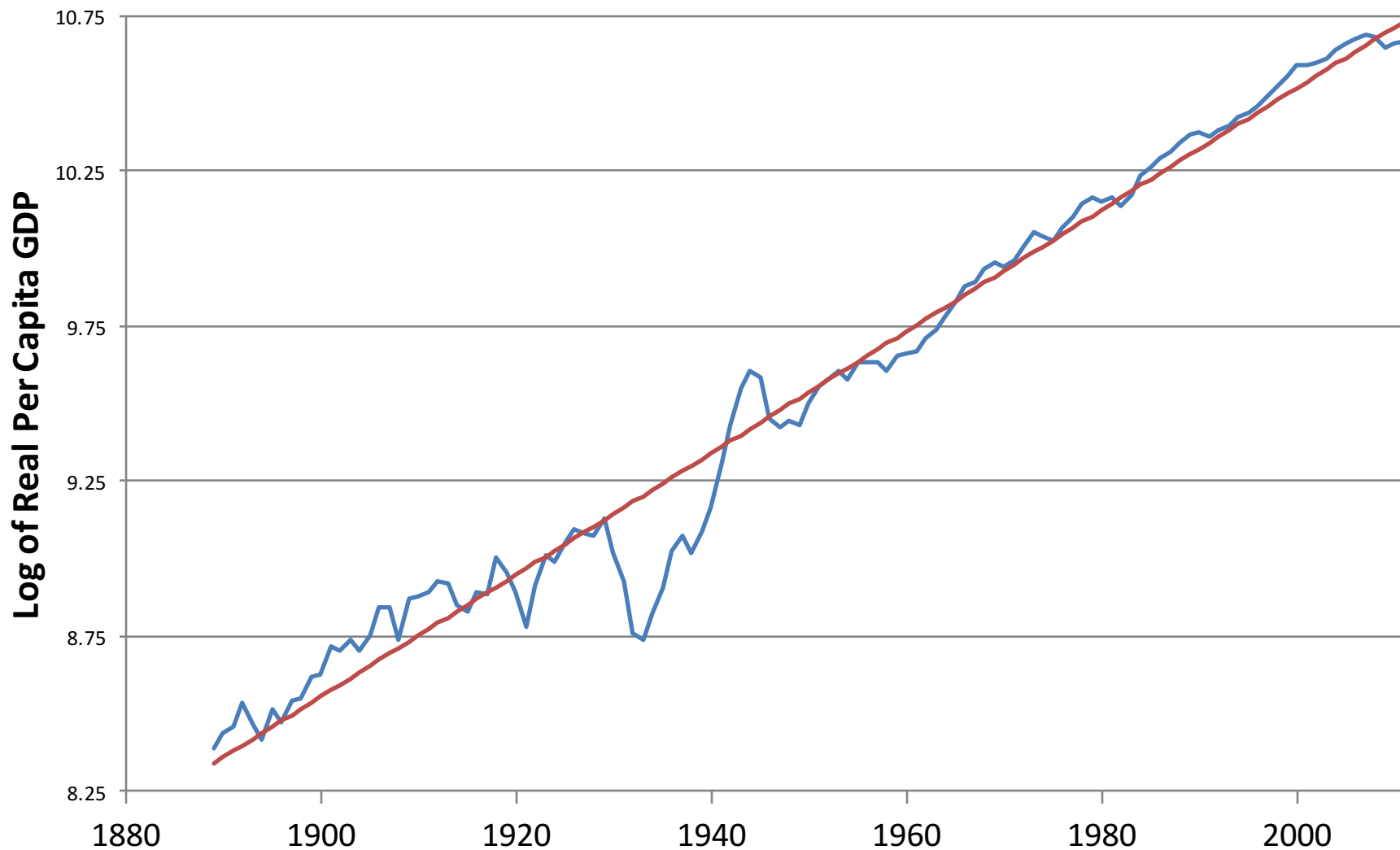


Q. What generates the growth in demand for more skilled labor?

A. The same basic forces that generate economic progress

A Picture of Progress

U.S. Real Per Capita GDP 1889-2012



Where Does Growth Come From?

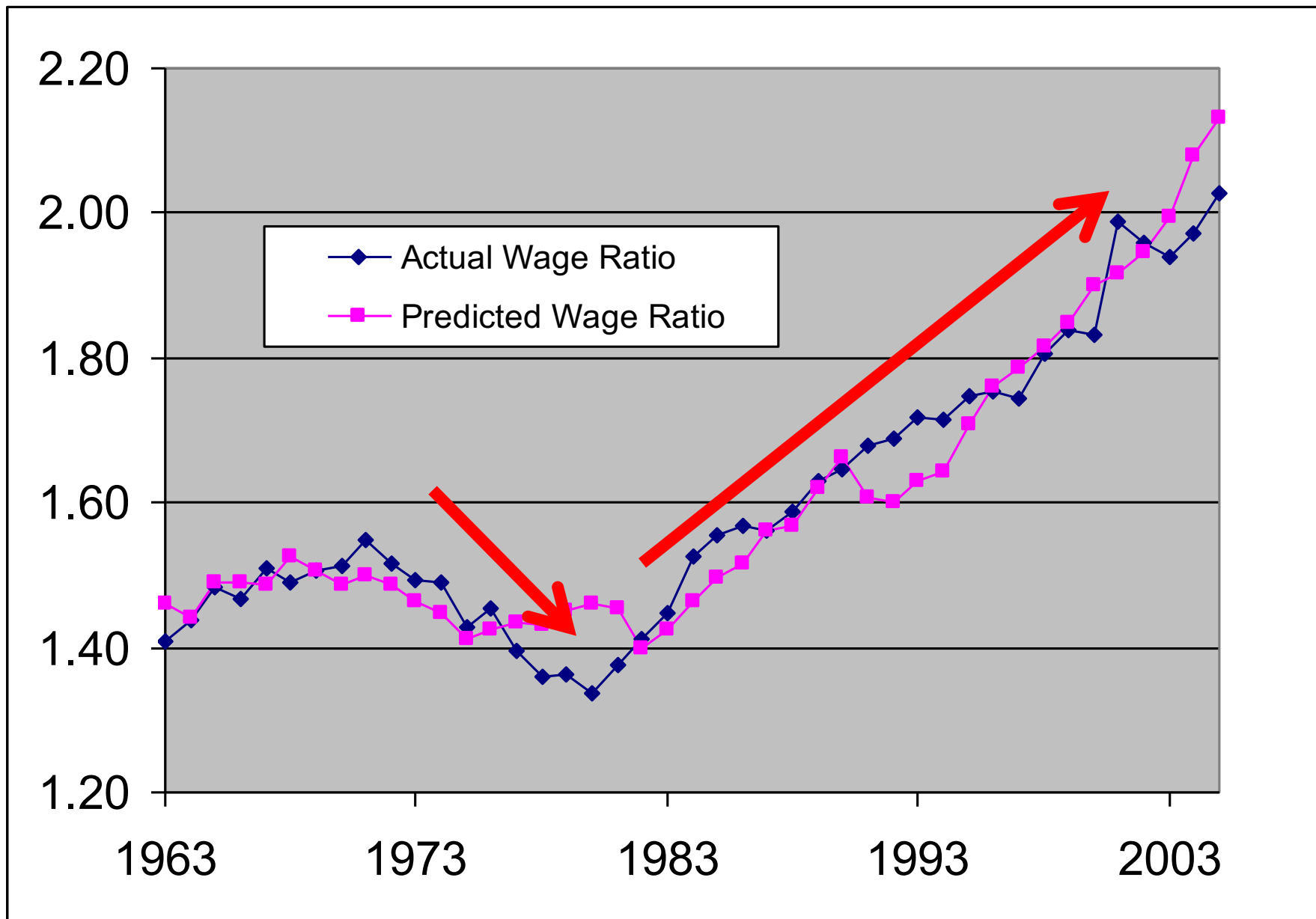
- There are three primary sources of growth
 - Improvements in technology (knowledge)
 - Investment in physical capital
 - Investment in human capital
- Growth in markets is also a factor

Driver	Effect on Output	Effect on Skill Premium
Technical Progress	+	+
Investment in Physical Capital	+	+
Improved/Integrated Markets	+	+
Investments in Human Capital	+	-

The Growth-Education Interaction

- Growth in technology and capital fuels growth in the demand for educated labor
- Over the 20th century education levels grew to meet this growing demand
- The price/return to education is determined by the supply/demand balance
- Changes in supply and demand help explain historical movements in skill premiums

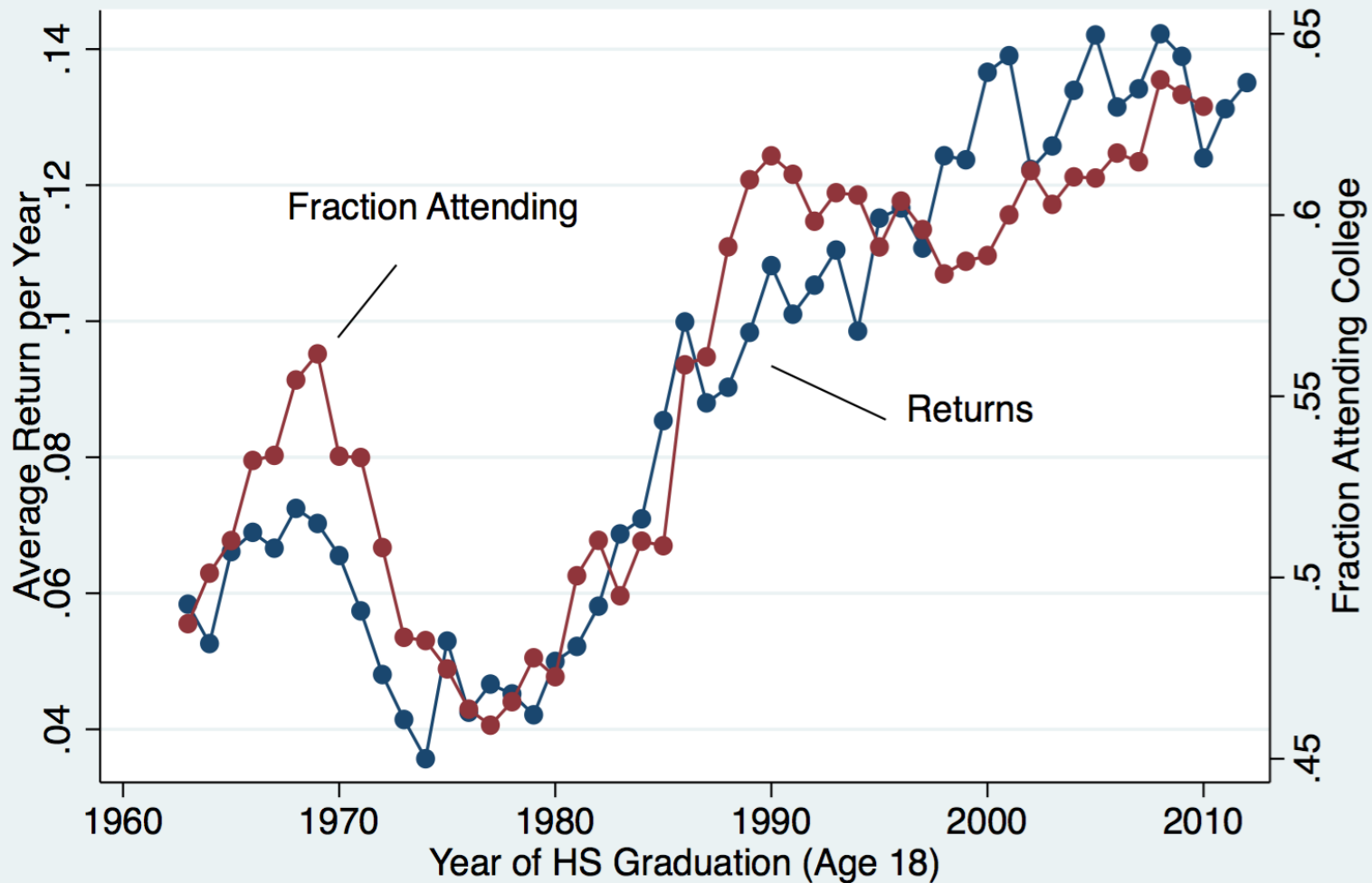
Supply Growth & Relative Wages



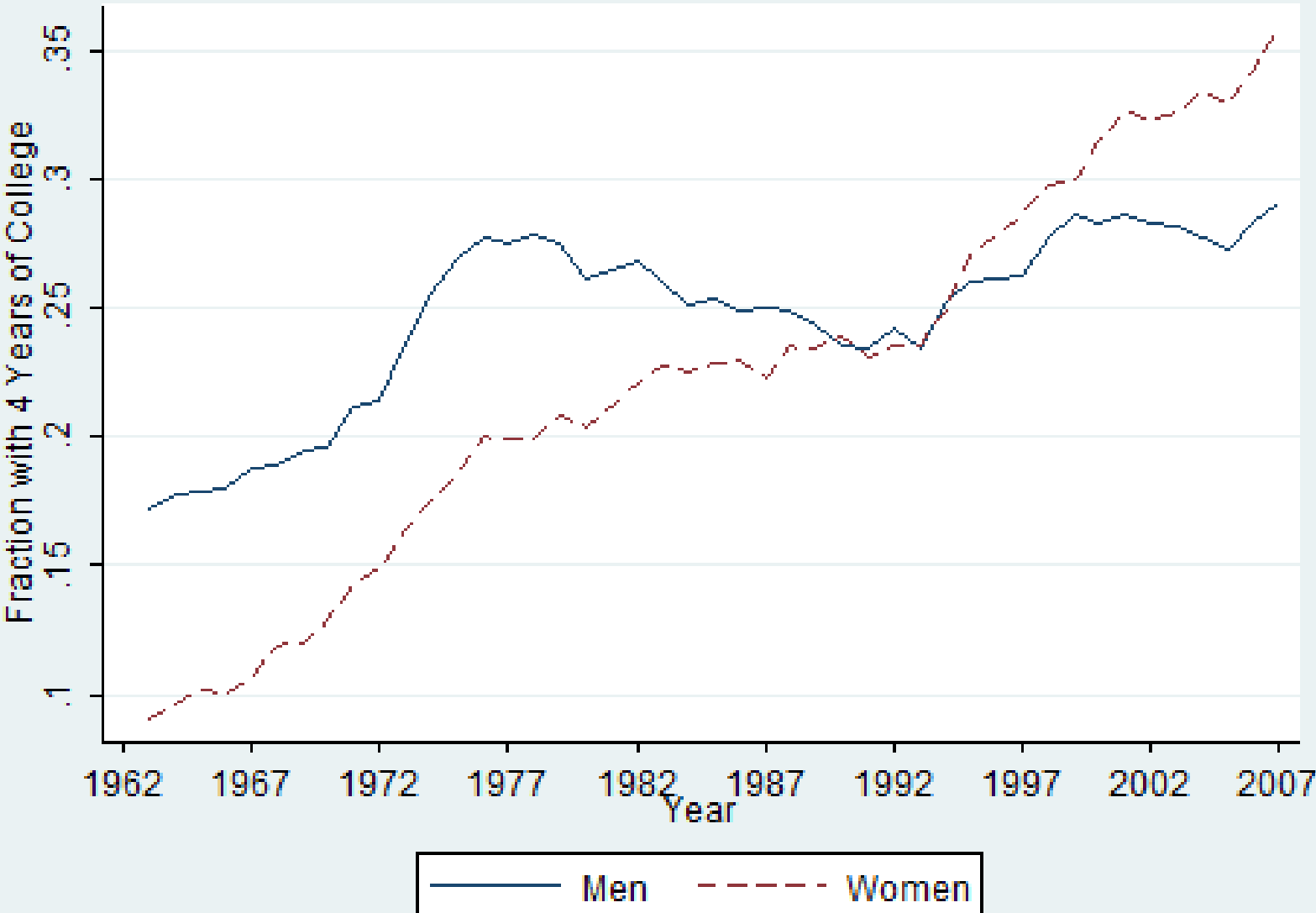
What about the supply side?

Returns and College Attendance

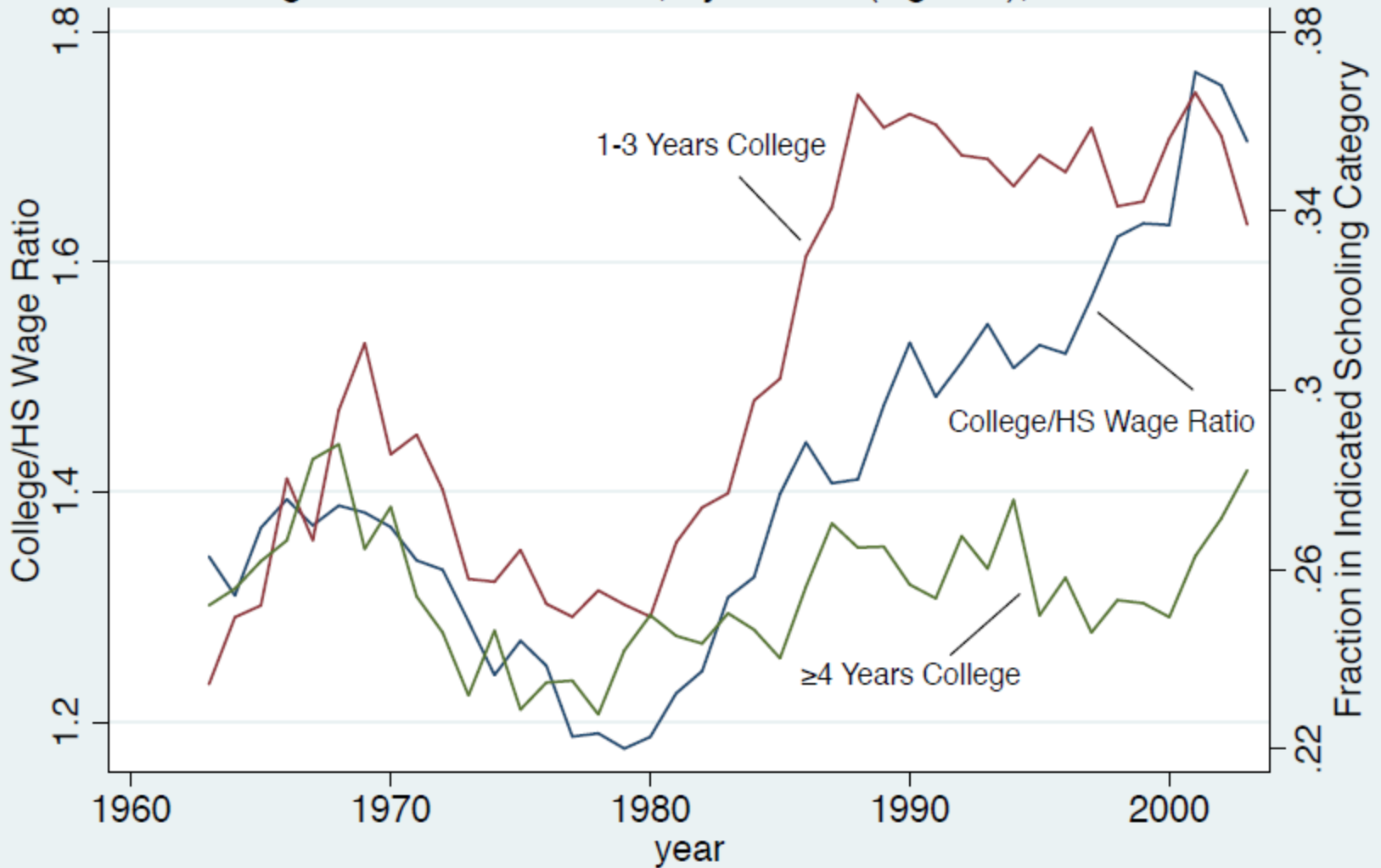
Returns to College & Fraction of HS Grads that Attend
1963-2012



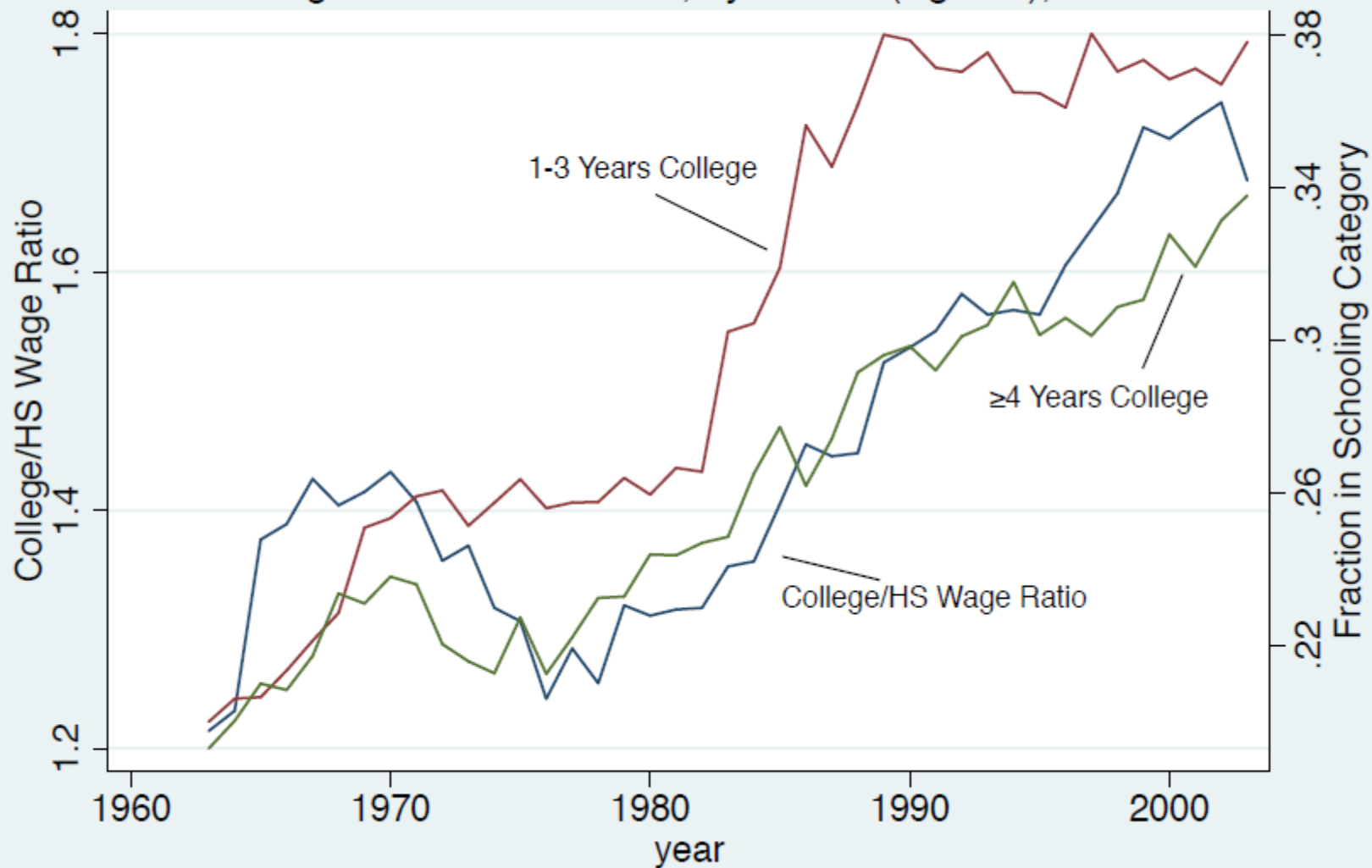
College Graduation by Gender (Age 30)



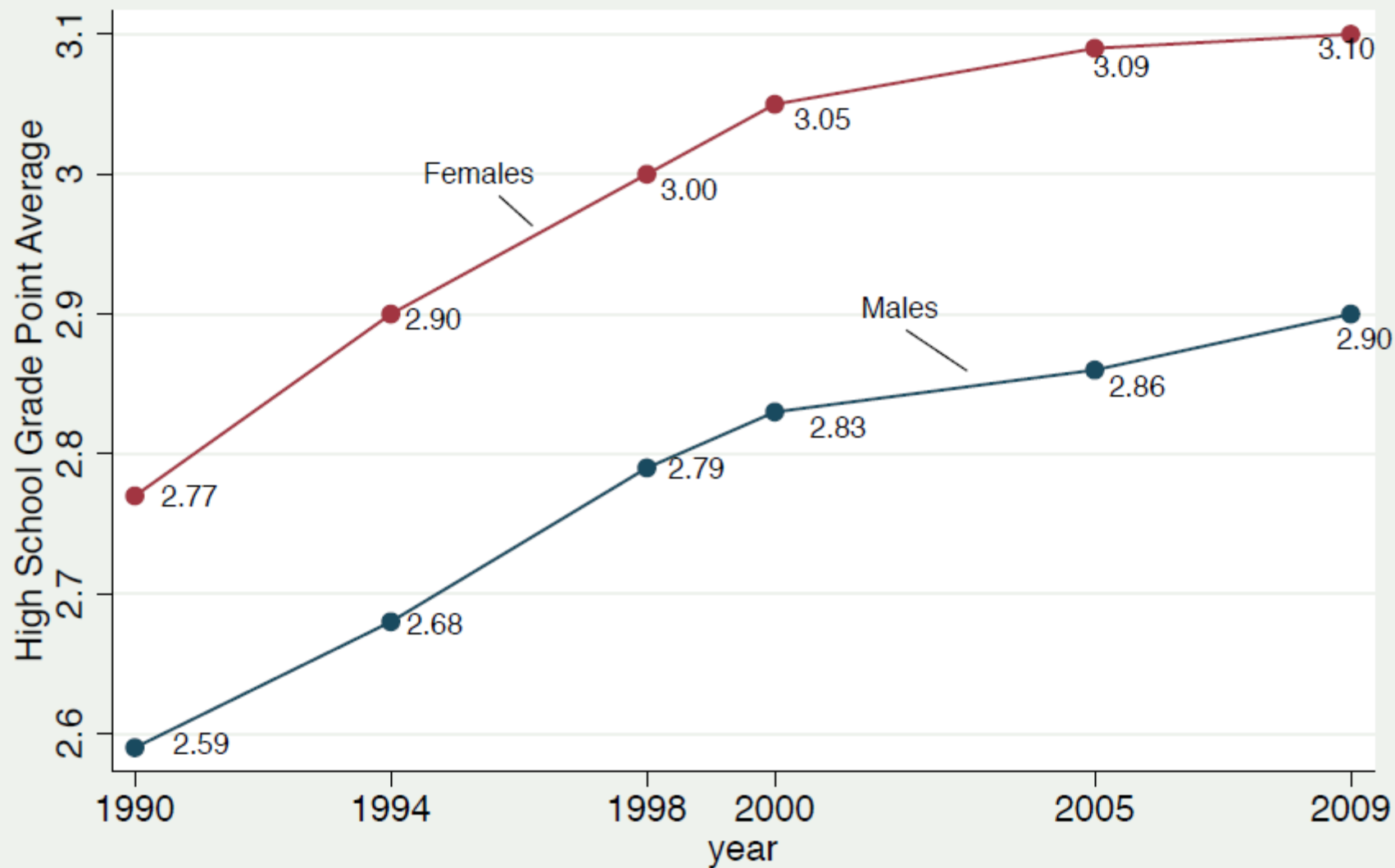
College/HS Wage Ratio and Years of Completed College Male High School Graduates, by Cohort (Age 18), 1963-2003



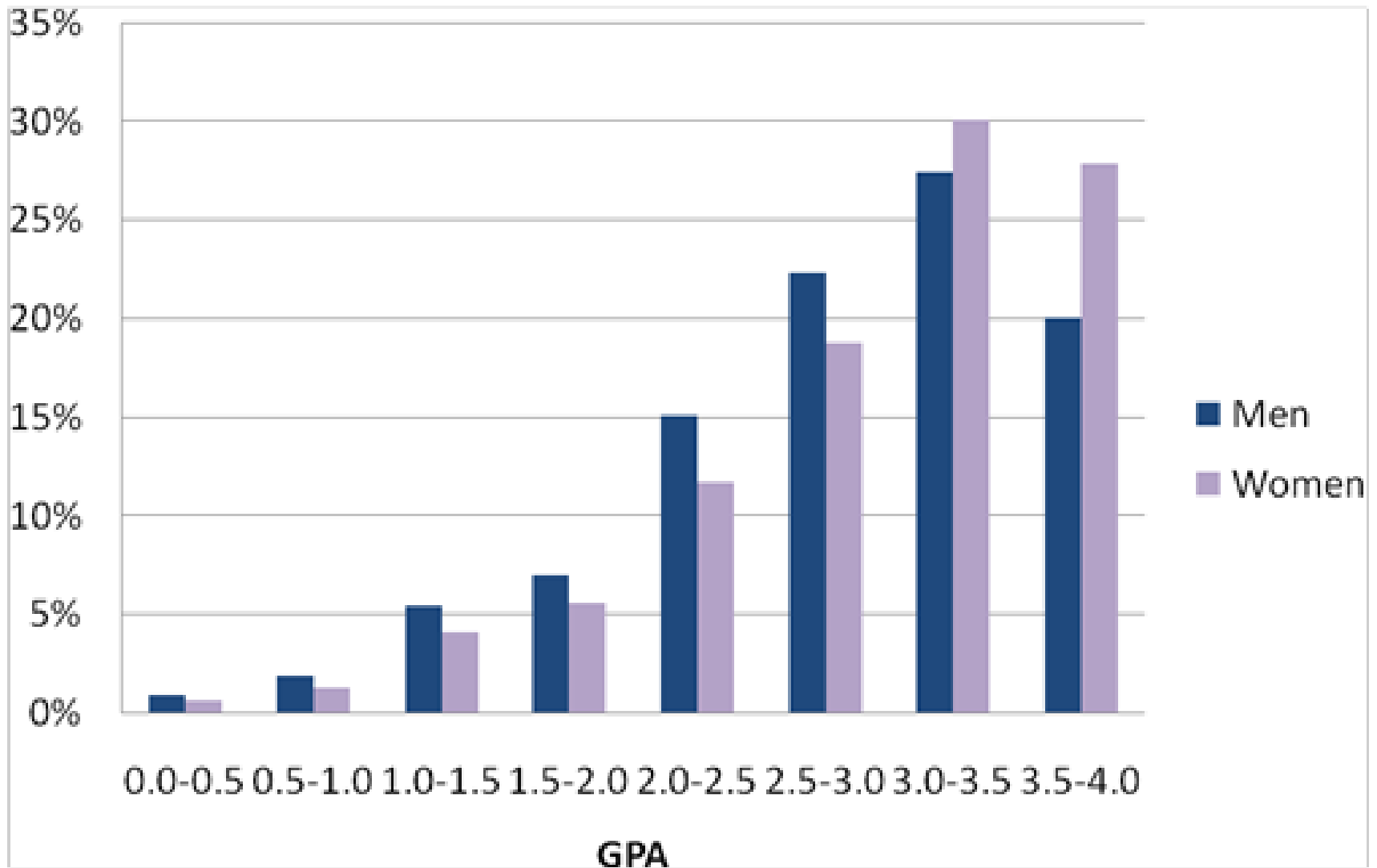
College/HS Wage Ratio and Years of Completed College
Female High School Graduates, by Cohort (Age 18), 1963-2003



Grade Point Averages of Graduating High School Seniors 1990-2009



DISTRIBUTION OF FIRST-YEAR UNDERGRADUATE GPA, BEGINNING POSTSECONDARY STUDENTS LONGITUDINAL STUDY



The Human Capital Challenge

- Growth in human capital has been and continues to be a critical component of growth
- Labor market outcomes demonstrate growing demand for skill that is outstripping supply
- The preparation of individuals (particularly young men) seems to be a limiting factor
- High returns signal an opportunity and a challenge
- Human Capital investment is a long-term effort

What happens when the supply of new graduates fails to keep pace?

- Prices rise (we saw that above)
- Supply responds on other dimensions
- These other responses exacerbate the growth in inequality:
 - High wage workers work harder and work more
 - Low wage workers work less

Average Weekly Hours Worked, by Percentile of Wage Distribution Men, 1970-72 & 2010-12



Average Weekly Hours Worked by Percentile of the Wage Distribution Women, 1970-72 & 2010-12



Key Takeaways

- Relative wages are relative prices
- Supply and demand matter
- Forces driving wage inequality and economic growth are closely linked
- Individuals respond to incentives
 - Extensive margin reduces inequality
 - Intensive margin increases inequality
- Less response on one margin implies more response the other
- Inequality represents a challenge but also an opportunity