

POLS/ECON 409 · *Automation, employment & inequality, Part 1*

skill-biased technology change

logarithms (log)

wage premium

elasticity of substitution

linear regression

monotonic

Baumol's cost disease

1. Over the last century, when was a college degree especially valuable, and when was it less valuable relative to a high school degree? Goldin and Katz argue these changes reflect a race between the supply of educated workers and the demand for technical skills. Narrate how this race evolved over the 20th century.
2. Do Goldin and Katz have direct evidence that changes in the college premium over the last 70 years resulted from skill-biased technology change? Do they have direct evidence that wage compression in the late 1940s/early 1950s resulted from unionized wage bargaining? What is the nature of their evidence on the sources of the changing college premium? (We will dig into Goldin and Katz's regression model here for those interested.)
3. Goldin and Katz argue that some of the increase in inequality in the US from the 1980s on is attributable to stagnation in high school and college graduation rates. What criticisms of this thesis do they rebut (and how)? Are you convinced? Even if Goldin and Katz are right, is raising college graduation rates the solution to future inequality? What role does family formation, the cost of housing, and the cost of college play? Or automation – what might Tough or Cassidy say?
4. Tough tackles the question of why college has recently become less popular in the US (but not other countries). What does recent research suggest is behind this trend? Be sure to touch on the issues of wealth, race, and risk.
5. Galbraith reviews different conceptions of “technology” and “technological change” employed by economists from Robert Solow to Robert J. Gordon, and John Stuart Mill and Karl Marx to Joseph Schumpeter. How do views of technology differ in conception and implications for growth in capitalist economies?
6. What does David Autor (and coauthors) mean by labor market polarization (Boehme may help answer this)? What kinds of jobs are disappearing or losing

earning power, and what kinds of jobs are rising? What role does automation play in this process, and what kinds of tasks are easiest to automate? How are service jobs different from manufacturing jobs? Does labor market polarization challenge the Goldin-Katz thesis that the solution to inequality is more college graduates? And is there an optimistic interpretation of Autor?

7. According to Galbraith and Cassidy, how does the nature of job creation and destruction in the information technology era differ from previous industrial revolutions? Is human creative labor now self-obsolescing? (We will continue this discussion next time with evidence on recent technological developments.)
8. Galbraith says it is difficult to disentangle the broad loss of jobs in recessions from the intentional elimination of jobs due to automation. Explain and assess his argument. What are some challenges for testing it?
9. Galbraith claims the Roaring Twenties, Great Depression, and postwar boom can all be explained as the result of new oil-powered machines coupled with massive redistribution from the war. (Side question: If this argument is correct, was the postwar lifestyle ever sustainable?) Craft a technologically deterministic explanation of the computer age, including the likely events of the next few decades. Can you imagine utopian scenarios (think 1950s, but with more social justice) and dystopian scenarios (think Dickens, or the fate of horses in the automobile era)? How do you think Galbraith would rebut Goldin and Katz on the need for more college graduates?
10. Following Cassidy, do you expect AI lead to substantial elimination of human employment? Will new employment opportunities arise for these redundant workers (and does this depend on their skills)? What are the likely macroeconomic consequences of a world without paid workers? What sort of politics and policies would it have or need? (Again, we will revisit this next time.)
11. Returning to the issue of skills, college, and risk: how do you expect the economic returns to college to shift in coming years? How certain are you?

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