Intro to Labor Economics with Claudia Goldin

Baltimore Polytechnic Guest Lecture

John Green

Johns Hopkins Economics

December 2023

Plan for today

1. What is labor economics?
2. Claudia Goldin and gender economics
3. Intro to data analysis
4. Navigating trade-offs at work

Outline

1. What is labor economics?
2. Claudia Goldin
3. Data work
4. Tradeoffs at work

Labor economics

- Micro-economists broadly study *how decisions are made* at the individual level
- Usually falls into two categories:
  1. How do firms (companies) make decisions?
  2. How do workers or households make decisions?
- Labor economists focus on the second one, specifically focusing on decisions about:
  1. Education
  2. Work
  3. Career
  4. Marriage and family

Labor economics

- Labor economists are also often in interested in *how* and *why* different groups of people make different decisions and have different experiences
  - "Heterogeneity" — understanding differences!
- What tools do we use?
  - Theoretical models
  - Real world data
  - Statistical analysis
- Economics is a *social science* — we try and make true statements about a very messy world using very messy data. This is not easy!

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Claudia Goldin

- Labor economist at Harvard (and the first tenured female economics professor in that dept.!)
- Groundbreaking work (largely) in gender economics, which looks at questions such as:
  - Gender wage gap
  - Female labor force participation
  - Child penalty
  - Much, much more
- Innovative use of data, cutting-edge statistical techniques, and history
- And recently: **winner of the 2023 Nobel Prize in economics!**

Gender wage gap

- Goldin's work on the gender wage gap points to:
  - Career interruptions
  - Occupational differences
- Shows that controlling for these things shrinks the wage gap, but it *not disappear*
  - (What do we mean by "control"?)
- Some natural questions:
  - Why might these factors lead to lower wages?
  - Why might these factors affect men and women differently?
  - What does it mean to "control" for things like career interruptions when understanding gender discrimination?

Other themes

Other areas of work:

- Education decisions and "human capital"
  - Emphasizes the importance of college attainment and the role of increasing female college attendance in improved labor market outcomes
- Practical policies
  - Has highlighted actual government policies which could promote gender equality: flexible work, affordable childcare, etc.
- Historical perspective
  - Looks at the long run trajectory of female labor force participation
  - Will discuss this more at the end!

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Introduction to data work

- Most of what the majority of economists do on a day-to-day basis involves writing computer code and analyzing data
- Let's have a gentle introduction to this using a *Python* notebook
- http://tinyurl.com/polyecon

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Responding to an increased wage

- One of Goldin's contributions was to explain how female labor force participation has responded to growing wages
- Let's try and understand this in a very simple setting
- Suppose you have two choices to make:
  1. How much to work
  2. How much to consume
- You enjoy consumption, but you dislike working — which is the same as saying you enjoy *leisure*, or not working
- You need to make a decision about the best combination of work and consumption!

Simple example

- Suppose you make $20 an hour, work 40 hours per week, and consume $800 worth of goods (your whole salary)
- Now let's say your wage increases to $30 per hour. How would you respond?
  - What would happen if you worked the same amount?
  - What would happen if you worked 30 hours per week?
  - What would happen if you worked 50 hours per week?

Simple example

- Say your wage increases to \$30 per hour. How would you respond?
  - **What would happen if you worked the same amount?** Consume $40 \times \$30 = \$1200$
  - **What would happen if you worked 30 hours per week?** Consume $30 \times \$30 = \$900$
  - **What would happen if you worked 50 hours per week?** Consume $50 \times \$30 = \$1500$
- No matter what, we are happier to be consuming more!
- But, we may be more or less happy with hour of work.
- Which is best?

Simple example

- Which is best? **We don't know!**
- To decide whether to increase our work hours, we need to know if the *decrease* in happiness from the extra 10 hours of work is outweighed by the *increase* in happiness from the extra $300 of consumption
- This depends on individual *preferences*

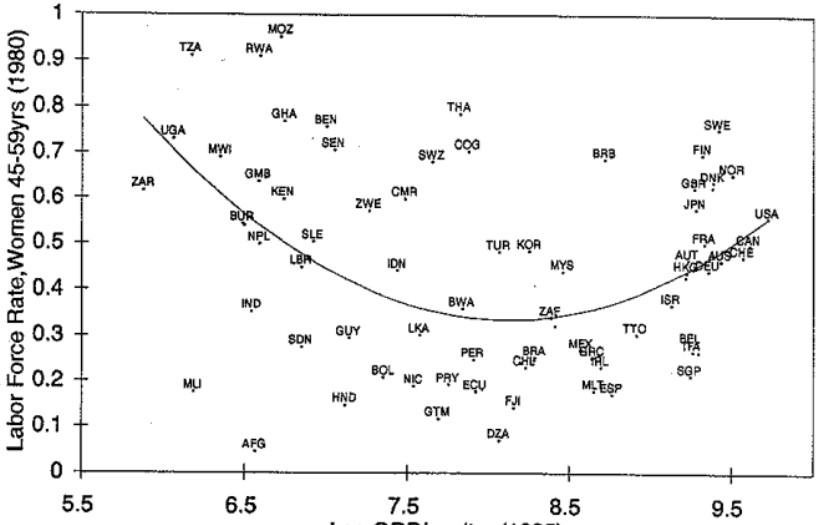
Income and substitution effects

- There are two different channels at play here:
  1. **Income effect** is the direct effect of the wage increase: we are wealthier, and so we want to increase our consumption **and** our leisure
  2. **Substitution effect** is the indirect effect: because our wage is higher, "purchasing" free time (the *opportunity cost*) is relatively more expensive, and so we may want to work more hours and consume more
- Which of these two channels is stronger?
  - We don't know! Need to try and measure from the data

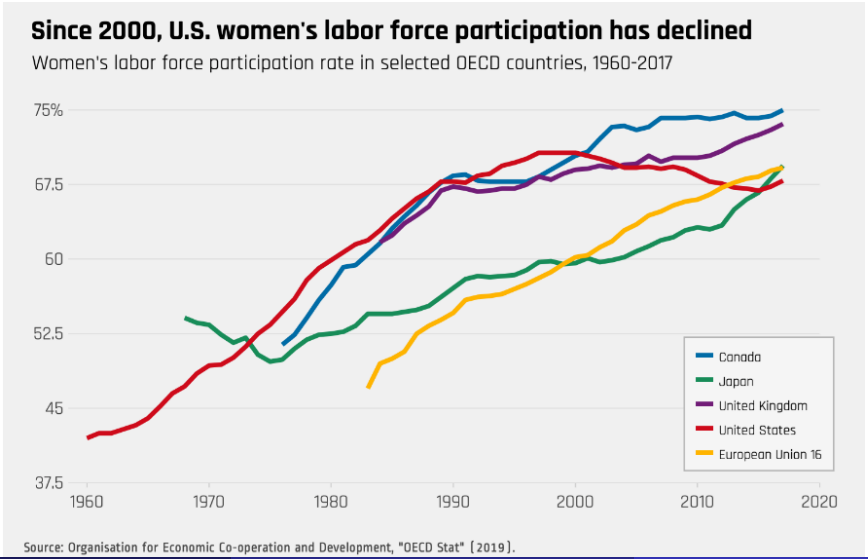
Income and substitution effects

- This was one of the main contributions for which Goldin won the Nobel Prize
- She analyzed the trajectory of women's labor force participation over time to show how the two effects balanced out as wages grew
  - Also highlighted the importance of occupational shifts, emergence of white-collar work, etc.
- Famous "u-shaped labor supply curve"

U-shaped supply curve



U-shaped supply curve



Income and substitution effects

- Flattening LFPR in recent years suggests these two effects are relatively balanced — and the income effect may be stronger in the US
- Important lesson: economics often involves multiple channels working at the same time, with an *ambiguous* net effect
  - In this case, that a wage increase could increase *or* decrease work hours
- Important to measure and distinguish between these channels to fully understand what is driving a trend

Conclusion

Key takeaways from today:

- Labor economics is a great field and you all should go study it
- Claudia Goldin is an incredible scholar
- Economics has interesting things to say about the world!

Thank you!