

Problem Set 1

Analysis of Labor Outcomes with PSID

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Outline

- 1 Introduction
- 2 Methodology
- 3 Results
- 4 Conclusion

Background of PSID

- The PSID is a longitudinal study of household and individual income dynamics
- Grants users an in depth look at long term labor and wealth outcomes
- Maintained by University of Michigan

Research Question

Main Question

What are labor and wealth outcomes for men aged 25-60 between 1999-2017?

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Subquestions

How do these outcomes when stratifying by wealth, educational, and labor characteristics?

Data

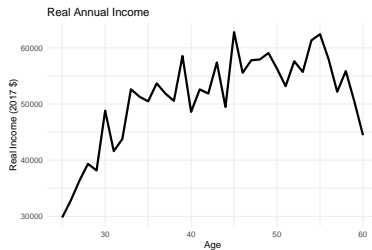
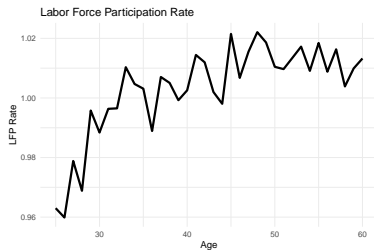
Year	Group	Category	N	Observations	College (%)
1999	All	All	1847	3795	22.6
2001	All	All	1855	4078	24.1
2003	All	All	1844	4209	24.1
2005	All	All	1814	4231	22.1
2007	All	All	1799	4349	21.2
2009	All	All	1767	4421	29.3
2011	All	All	1713	4441	28.0
2013	All	All	1701	4475	27.8
2015	All	All	1650	4365	27.3
2017	All	All	1908	4684	49.3

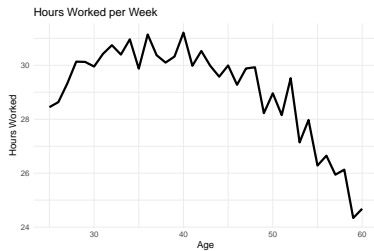
Age Profile Generation

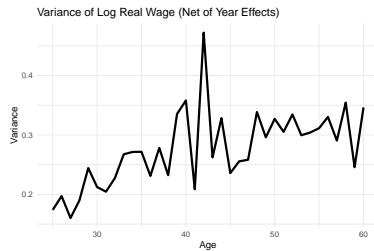
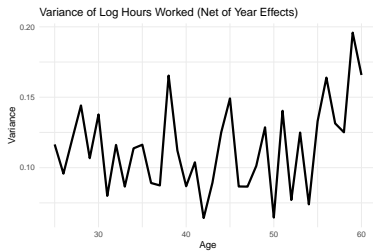
$$y_{it} = \alpha + \sum_a \beta_a \cdot \mathbf{1}(Age_{it} = a) + \sum_t \gamma_t \cdot \mathbf{1}(Year_{it} = t) + \epsilon_{it} \quad (1)$$

In which Y_{it} is the outcome variable for individual i at time t , Age_{it} is the age of individual i at time t , $Year_{it}$ is a set of year fixed effects, and ϵ_{it} is the error term.

Main Results - Overall

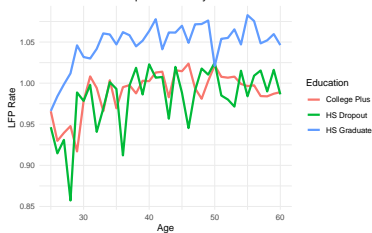




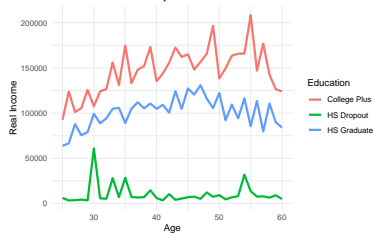


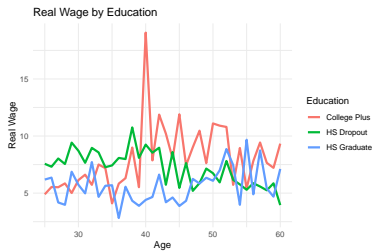
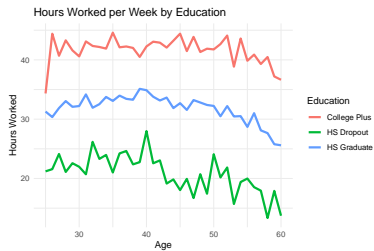
Results - Stratified by Education

Labor Force Participation Rate by Education

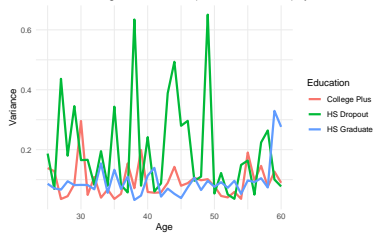


Real Annual Income by Education

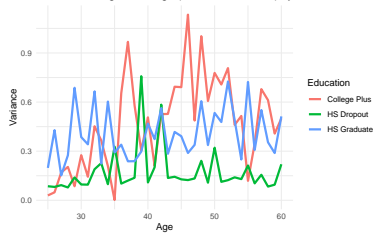




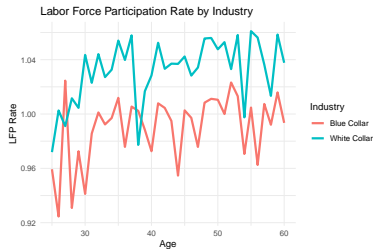
Variance of Log Hours Worked (Net of Year Effects) by Education

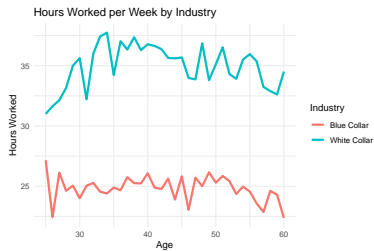


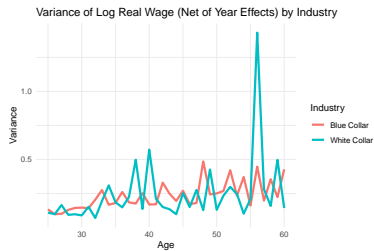
Variance of Log Real Wage (Net of Year Effects) by Education



Results - Stratified by Industry

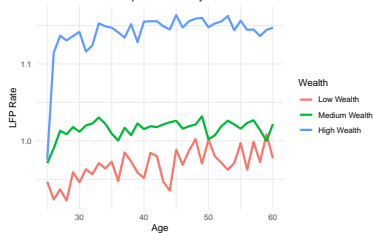




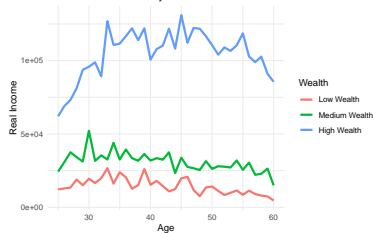


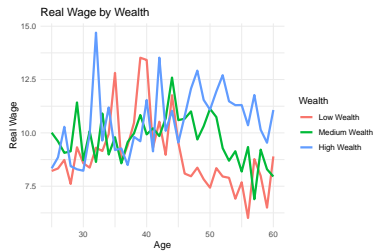
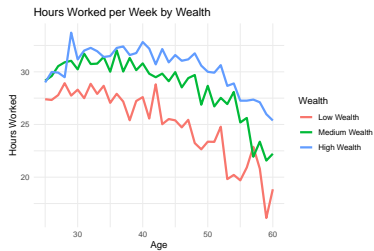
Results - Stratified by Wealth

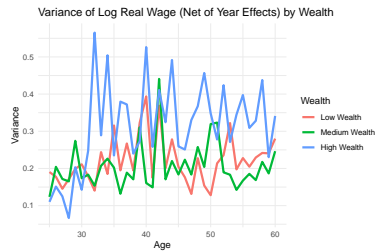
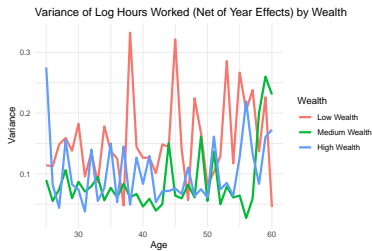
Labor Force Participation Rate by Wealth



Real Annual Income by Wealth







Conclusion

- Much of the behavior is what should be expected
- Labor force participation peaks around 55, income around 50, hours worked around 30, and wages around 40
- Wages do not follow a typical concave pattern, likely due to data limitations
- Education, industry, and wealth all have significant impacts on outcomes
- Future work could explore more stratifications, as well as other outcome variables