The lost ones: the opportunities and outcomes of white, non-college-educated Americans born in the 1960s

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Motivation

- Most cohorts are better off than the previous one because of growth, but not all
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- We should be thinking more about changes in lifetime opportunities across cohorts and large groups within these cohorts
What changes in lifetime opportunities and why?

- Wages of men and women
  - Guvenen, Kaplan, Song, Weidner (2017): Median lifetime earnings
    - Men: 12-19% lower for 1960s birth cohort than for 1940s one
    - Women: 22-33% higher for same cohorts

- Medical expenses
  - Hall, Jones (2007): Aggregate health services over consumption
    - \(\uparrow\) from 9% in 1975 to 15% in 2000

- Life expectancy later in life
  - Case, Deaton (2017): Mortality of white, non-college-educated age 55-59
    - \(\uparrow\) 22% from 1999 to 2015
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- Document new facts on how these two groups compare in terms of
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- Calibrate a structural model with married and single men and women for the 1960s cohort
- Give this cohort the wage schedule, medical expenses, and life expectancy of the 1940s cohort
- Evaluate effects on labor supply, savings, and welfare of the 1960 birth cohort
Model key features

- Single and married people and marital transitions
- Endogenous human capital (measured as average past earnings) affecting wages
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- Endogenous human capital (measured as average past earnings) affecting wages
- Risks during working and retirement periods
- Self-insurance: saving and labor supply
- Government taxes and transfers
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- Working stage \((t_0 \text{ to } t_r)\), people
  - Alive for sure
  - Face wage shocks
  - Might get married if they are single
  - Risk divorce if they are married
  - Both spouses can work
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- Working stage ($t_0$ to $t_r$), people
  - Alive for sure
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- Retirement stage ($t_r$ to $T$), people
  - Face health shocks
  - Medical expense shocks
  - Exogenous probability of death
Wages

- Large decreases in the wages of men (↓ 9%) and increases in the wages of women (↑ 7%). PSID data
Wages conditional on human capital

- Wages as a function of human capital ($0^{th}$, $25^{th}$, $50^{th}$, $75^{th}$ and $99^{th}$ percentiles of the distributions of men and women)
- Large drops in wages conditional on human capital, with largest drops for lower human capital levels, especially for men
Out-of-pocket medical expenses (OOP)

- An 80% increase in OOP medical expenses (from $2,878 to $5,236 at age 66).

HRS data
Borella, De Nardi, Yang
## Life expectancy

<table>
<thead>
<tr>
<th>Age</th>
<th>Men, 1940</th>
<th>Men, 1960</th>
<th>Women, 1940</th>
<th>Women, 1960</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>77.6</td>
<td>76.1</td>
<td>79.8</td>
<td>78.7</td>
</tr>
<tr>
<td>66</td>
<td>82.5</td>
<td>80.9</td>
<td>85.7</td>
<td>84.0</td>
</tr>
</tbody>
</table>

- Large drops in life expectancy (1.1 to 1.7 years). HRS data
How do we do the counterfactuals?

Give the 1960s calibrated cohort, the 1940s

- Wage function
- Medical expenses
- Life expectancies
- Wage function, medical expenses, and life expectancies

We then look at outcomes and welfare
1940s vs. 1960s wages: participation

Under the 1960s wage schedule

- Participation of married women 8 percentage points higher at age 25
- Participation of married men 4 percentage points lower at age 55
1940s vs. 1960s wages: hours

- Hours worked by young married women 100 hours a year higher under the 1960s wage schedule

Borella, De Nardi, Yang
• Assets at age 66 are lower under the 1960s wage schedule: 21% for single men, 1.1% for single women, and 6.1% for couples.
1940s vs. 1960s wages: welfare

- Everyone loses welfare under the 1960s wage schedule
- One-time asset compensations
  - Single men: 7.3% of present discounted value of their lifetime income
  - Couples: 4.5% of the present discounted value of their lifetime income
  - Single women: 3.4% of present discounted value of their lifetime income
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1940s vs. 1960s medical expenses

- Savings go up
- Smaller changes in participation and hours
  \[ \Rightarrow \text{Everyone loses welfare under the 1960s medical expenses} \]
- One-time asset compensations
  - Single men: 1.4% of present discounted value of their lifetime income
  - Single women: 1.0% of present discounted value of their lifetime income
  - Couples: 0.9% of the present discounted value of their lifetime income
1940s vs. 1960s life expectancy

- Savings go down
- Almost no changes in participation and hours

\[ \Rightarrow \text{Everyone loses welfare under the 1960s life expectancy} \]
- One-time asset compensations
  - Single men: 3.2% of present discounted value of their lifetime income
  - Single women: 2.4% of present discounted value of their lifetime income
  - Couples: 2.2% of the present discounted value of their lifetime income
1940s vs. 1960s life expectancy, medical expenses, and wages

- Changes in participation and hours driven by changes in wages
- Savings go up slightly because increased medical expenses dominate
- \[\Rightarrow\] Everyone loses welfare in the 1960s cohort due to these changes
- Asset compensations for welfare losses:
  - Single men: 12.5\% of present discounted value of their lifetime income
  - Couples: 8.1\% of present discounted value of their lifetime income
  - Single women: 7.2\% of present discounted value of their lifetime income
Conclusions

- The non-college-educated, white Americans born in 1960s compared with those born in 1940s

Experienced much lower wages over all of their life cycle
- Expect much higher medical expenses during retirement
- Expect lower life expectancy at retirement time

Thinking about the changes experienced by various cohorts and education levels over time is worth studying more.

To what extend did government policies attenuate these changes?
- Should the government have done something different?
- What and at what stages of their life cycle?
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