Flatter experience-wage profiles and declining labor force nonparticipation

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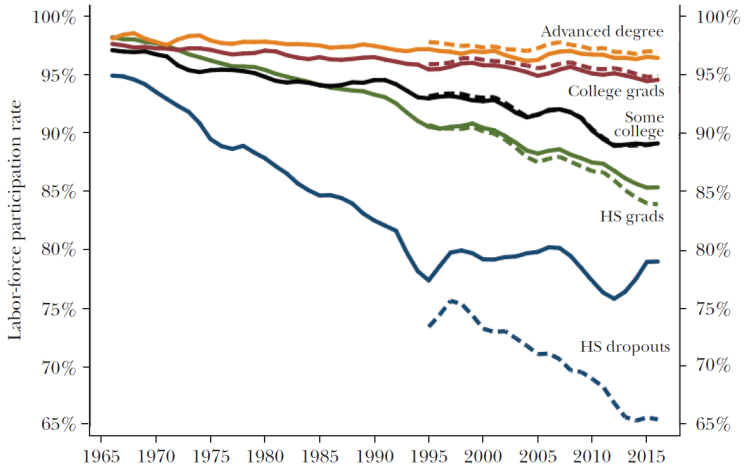
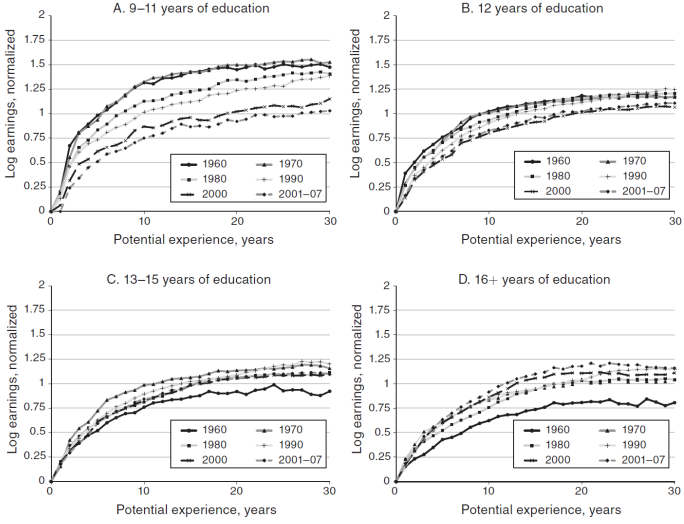
Motivation

Declining labor force participation among prime-aged low-skilled men (Binder & Bound JEP 2019)



Motivation

Flattening of experience-income profile of low-skilled relative to high-skilled (Elsby & Shapiro AER 2012)



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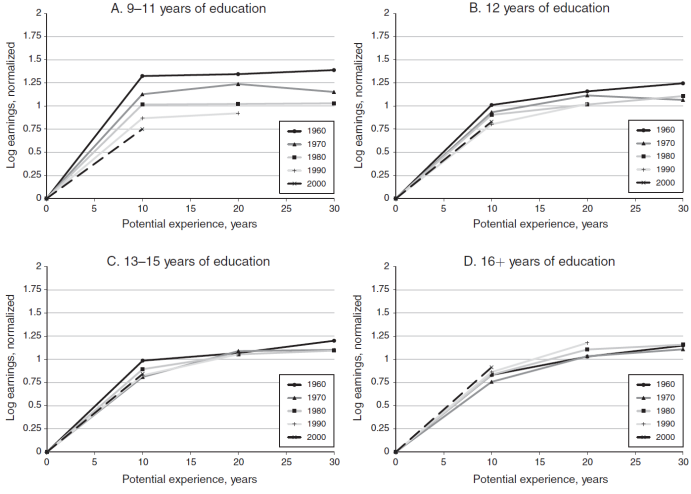

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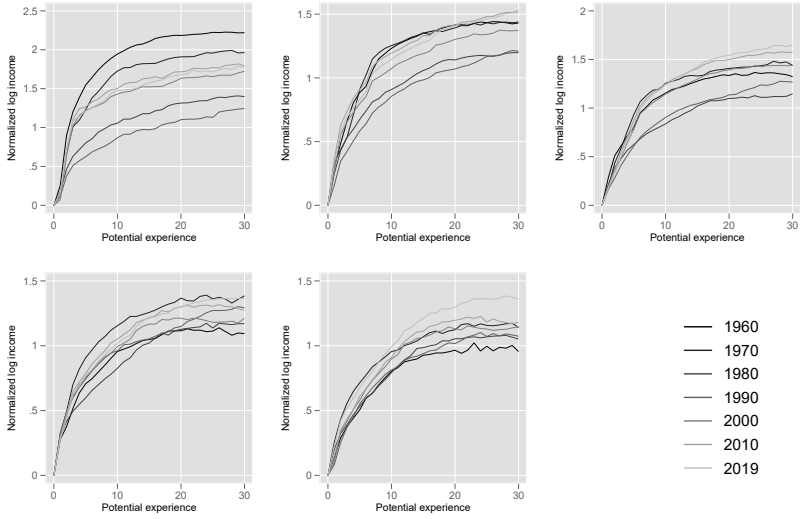
Experience-income profile of lowest-skilled has actually steepened recently!



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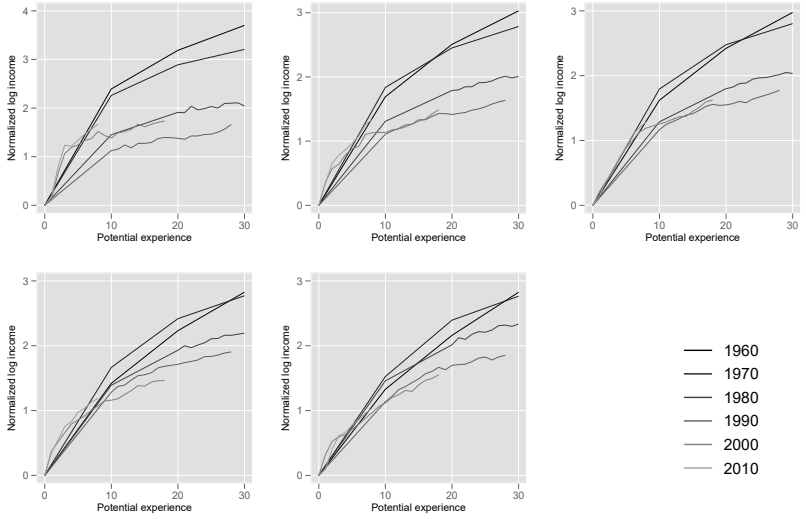
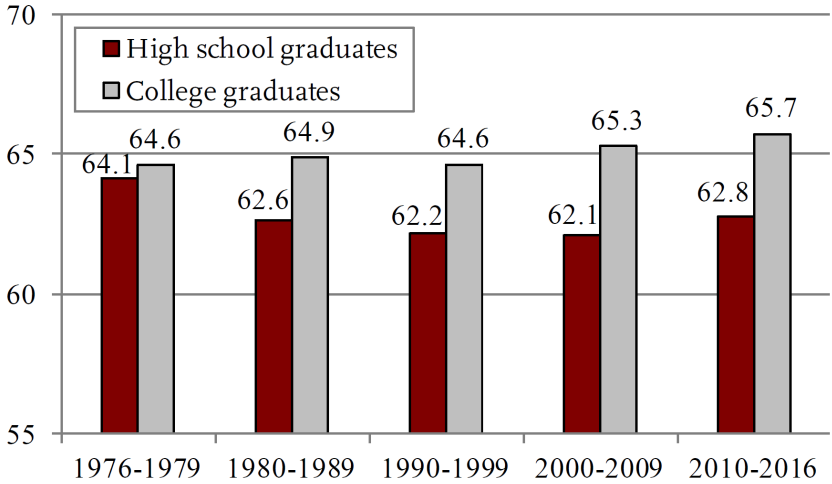


Motivation

Increase in gap of retirement age between high and low-skilled (Rutledge 2018)



Idea

Declining returns to accumulation of human capital leads to

- less human capital accumulation
- lower participation
- and earlier retirement

among low-skilled, and lower human capital level leads to

- higher sensitivity and persistence to shocks

Literature

Many explanations for declining LFP of prime-aged men:

- Skill-biased technical change (Card & Dinardo 2002, Acemoglu & Autor 2010)
- Job polarization (Foote & Ryan 2015)
- Improvements in leisure technology (Aguiar et. al. 2018)
- Disability and SSDI (Autor & Duggan QJE 2003, Krueger 2017)
- Incarceration (Binder & Bound JEP 2019)

Elements I need in my model

- Human capital accumulation
- Education
- Labor supply
- Retirement

Blinder-Weiss 1976

Agents with finite lifespan T maximize lifetime utility

$$\max_{\{c_t\}_{t=0}^T, \{h_t\}_{t=0}^T, \{x_t\}_{t=0}^T} \sum_{t=0}^{T} \beta^t u(c_t, 1 - h_t) + B(A_{T+1})$$

subject to

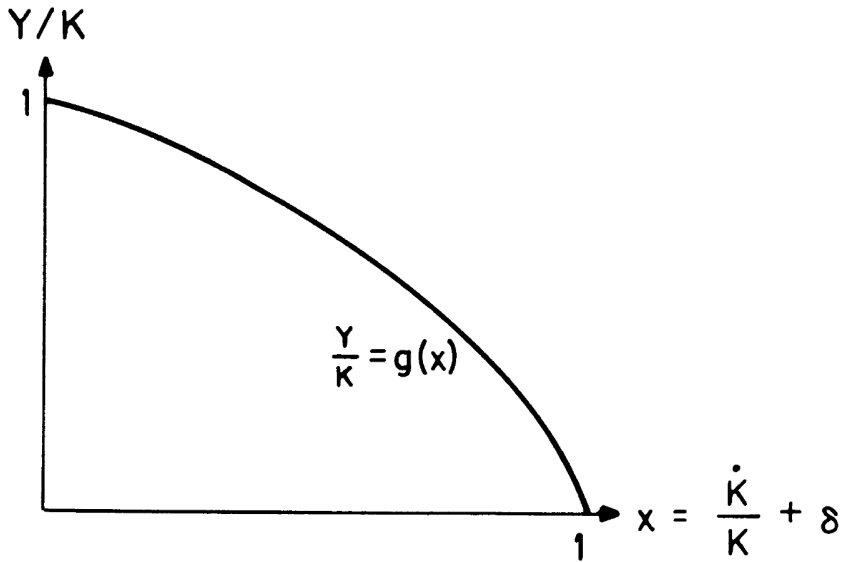
$$A_{t+1} = (1 + r)A_t + h_t g(x_t)K_t - c_t,$$

$$K_{t+1} = (1 - \delta)K_t + x_t h_t K_t,$$

$$x_t, h_t \in [0, 1],$$

- x_t and $g(x_t)$ governs tradeoff between accumulating human capital and earnings
- B is bequest, A is assets, and K is human capital

$g(x)$

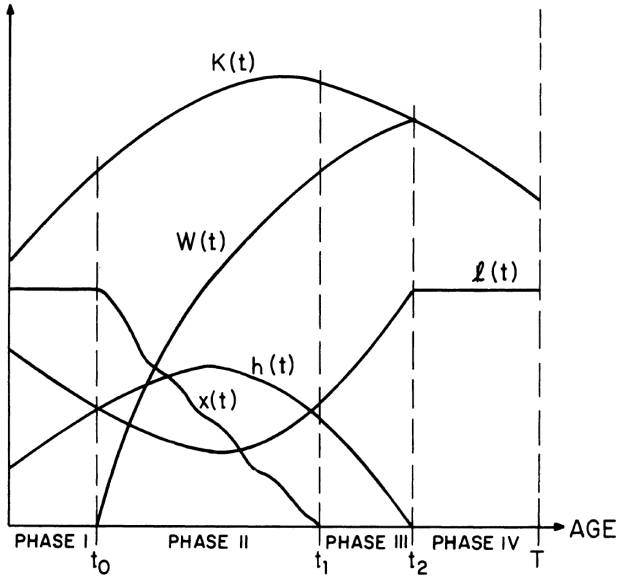


Endogenous life phases

Four phases:

- Education: $x = 1$
- Work + learning: $0 < x < 1$
- Work + no learning: $x = 0$
- Retirement: $h = 0$

Endogenous life phases



Challenges

- Both shooting method (continuous time model) and backward induction of value function (discrete time model) not working
- Possible way forward: discretize labor supply and investment decisions (Keane & Wolpin 1994)
- What is $g(x)$?
- What is causing the flattening and steepening of the experience-income profile?
  - Changes in labor markets; incorporate into the $g(x)$ function?
  - Changes in monopsony power?
  - Endogenize changes in the slope of experience-income profile