Discussion: The Role of Education Signaling in Explaining the Growth of College Wage Premium
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The SBTC Hypothesis

- This paper brings a (labor) supply-side explanation to rising college wage premium in the US after 1980s.
- The traditional literature argues that technological change favors skilled workers over the unskilled ones in the labor market (e.g., computerization of production technologies after 1980s).
- This "skill-biased" technological change (SBTC) generates a sharp increase in the relative demand for skilled workers; the relative supply responds, but the demand outpaces the supply.
- At the end, skill premium (or college premium) rises – wage inequality, measured in terms of the gap between skilled and unskilled workers, goes up.

SBTC Criticism

- There are many papers in the literature (Katz and Murphy, 1992; Acemoglu, 1998; Krussel et al, 2000) favoring this hypothesis.
- There are also many critiques. For example, rise in college premium slowed down in 2000s – but computerization was even faster. The empirical models describe SBTC solely as a linear time trend – any variable contributing to this trend is also assumed to be a part/component of SBTC (Card and DiNardo 2002). The baseline models are reduced form – the role of unobserved heterogeneity is not accounted for (Elitas et al, 2015; Bowlus and Robinson, 2012). Change in school quality is not accounted for (Carneiro and Lee, 2011). Labor market institutions (rising minimum wages) are ignored (Bound and Johnson, 1992). The role of business cycles are ignored (Hoynes et al 2012). Foreign outsourcing of less-skilled jobs are ignored (Feenstra and Hanson 1999).

Motivation

- This paper brings a "supply-side" explanation to the rising college premium. Building on the education signaling idea developed by Spence (1973), the author argues that increased access to college education led the ones with higher unobserved ability to go to college. College education became a correct signal of high productivity in the labor market. Therefore, the productivity gap between college and high-school educated workers has increased.
- Therefore not only labor demand, but what happens to labor supply can also explain (at least part of the) increased college wage premium.
- Using a neoclassical aggregate production model, the author quantifies the importance of the supply side channel: finds that the signaling story can explain around the 15 percent of the observed increase in wage premium.

Comments: Signaling

- It is not clear why signaling works in the opposite way. The ones with lower unobserved ability may also want to "create" a signal by overeducating themselves (Lang and Manove 2010).
- Discrimination literature: if we condition on the AFQT score, blacks are more educated than whites. If we condition on education, whites are smarter than blacks.
- If access to college is easier (it does not require extraordinary skills), then what is the reason to believe that signaling generates the opposite force?
- One solution: employer learning model (Altonji and Pierret 2001).

Comments: Frictions

- The author assumes that there are no frictions in the model (i.e., high unobserved skills generate better jobs and receives higher wages). There is perfect sorting in the model.
- The labor market search literature says that conditioning on education and ability, there is still a large wage dispersion across workers (the distribution is still log-normal).
- Frictions can be introduced.

Minor Comments

- Unobserved heterogeneity is not single dimensional: labor market productivity vs school success (not always strongly correlated).
- Fixed costs of education are assumed. There may also be unobserved heterogeneity in the cost of college education (psychic costs – see Heckman's work).
- If an earlier agent can afford college in a dynasty, then all subsequent agents from this dynasty can afford college. Realistic? Intergenerational mobility coefficient – mobility is low, but not perfect.

Minor Comments

- This is an empirical question (data intensive). Calibration is a bit too plain. Why not trying to estimate the model (the structural coefficients and the distribution of ability)? Identification shouldn't be too difficult. SMM may also be used.