Employer Learning, Statistical Discrimination and University Prestige

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Summary (Implicit Model)

1. Employers hire workers and have incentives to use any signal in the recruiting process in order to learn how productive candidates are.

2. The literature (Spence onwards) claims that education is a useful signal for ability and productivity.

3. The authors whether graduating from a **prestige university** is a useful signal.

   - Resume have candidate's University name.
   - Most talented individuals attend most prestigious universities.

4. **The effect of graduating from a prestige university on wages should decrease with experience.**

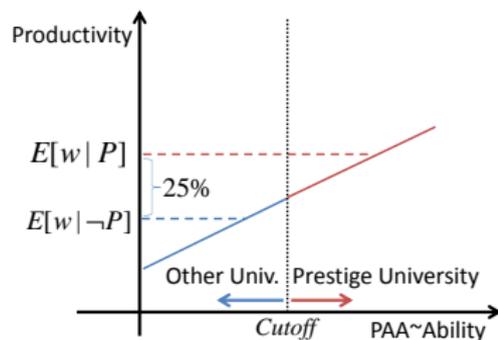5. Notice that **it is not necessary** that Prestige Colleges offer better quality education to run this EL-SD test.

Summary (graphical)
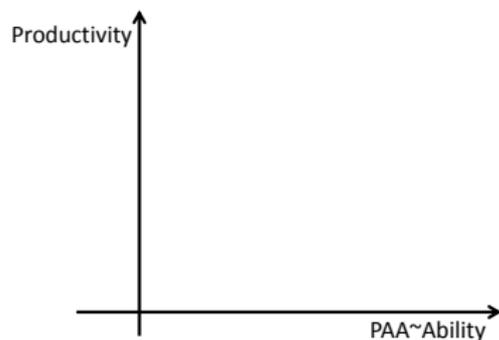
1. Workers are paid according to productivity:

   wage = productivity (expected output).

2. Worker's ability correlates with productivity:

   $E[w|\text{prestige}] > E[w|\text{non prestige}]$.

(a) Education as signal

(b) Education as signal with RD

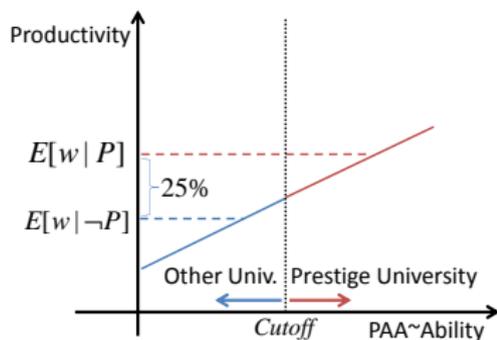Figure: Statistical Discrimination/Screening/Signals

Summary (graphical)

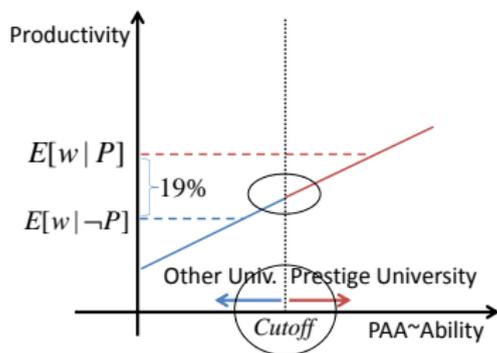1. Workers are paid according to productivity:

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(a) Education as signal   (b) Education as signal with RD

Figure: Statistical Discrimination/Screening/Signals

Model

- **Should we observe an increase in wage dispersion (variance)?**

- **Student's effort:** Is there any assumption on the relation among effort, ability, and entering a prestige/non-prestige college?

- Suppose a student does not enter in a prestige college, What if this student exerts great effort to compensate going to a less prestige college?
  If this is the case, the education role in the human capital formation in prestige college is diminished. (besides better instruction and the number of accomplished peers)

- **Ranking:** What if a student is the best student in a non-prestige college? (through GPA or being laureate)

Comment: Model sorting and screening

- One of the assumptions is that wage equals expected output. (Farber & Gibbons 1996, Altonji & Pierret 2001, Lange 2007)

- Why employers' use signals in the recruiting process? To pay according to productivity or to hire the most productive workers, or both?

- For some professions it seems plausible that there is a mutual search:
  - Employers look for the best candidates to fill their positions (profits depend on worker's ability).
  - Candidates looks for good positions.
  - E.g., Laws (best law firms), Medical (best hospitals), etc

- Can we relax the assumption that candidates have equal expected output (productivity) in all jobs?

Comment: Model match-specific

- There is a literature on match-specific productivity in labor markets (job-search).

- Suppose that a graduate from prestige universities may have a greater set of job offers to choose from.

- This exacerbates the wage gap at hiring.

- Suppose that graduates from non-prestige university have a higher rotation rate than prestige candidate, may experience be revealing searching for a "good match"?

- Can you use the variable "*number of employers*" to explore this case?

Question: human capital vs signaling effects

- Split the effect of "selective college" in human capital and signaling.
- The estimation of (table 7):
    - human capital parameter r (-0.0241) is negative, $[-0.077, 0.029]$,
    - signaling $\overline{\omega}$ (0.31) is positive, $[0.18, 0.433]$.
- You claim that 86% of the wage gap is due to signaling.

- Should we expect a positive human capital effect? You are mostly comparing two **similar individuals** in two **similar universities**.
- Is 14% of wage gap due to human capital and the number of accomplished peers low or high?

Data cohort 1995

- In the data there are different cohorts, 1995, 1998, 2000, 2001.

- Income is reported until 2005.

- Main results reported for all cohorts and only for cohort 1995 are quite similar.

- There are differences in the PAA grades and its interaction with experience: 1) change in sign (math*exp) and 2) significance (language and language*exp).

- These differences in cohort 1995 and 1998/2001 may be due to changes in education quality (in math and language), PAA type of evaluations, quality of prestige universities, labor markets requirements (how the market value different abilities), a combination of both, or something else.

- Consequently, the PAA may matter but this result seems not so robust.

- Did you check the RD results with cohort 1995?

Comment: data and attrition

- Is the data comprising **all graduates** or is it a sample of them?

- Is informality in the job market a problem? how do you count for no income declaration?

- The data starts with people graduated from university.

- Then, you track down their PAA's grades, choices, etc.

- Can you tell us more about how far you dig for attrition?

    - Go for graduate studies (footnote 13).
    - Retakers (appendix).
    - Dropouts (footnote 20, assume that there are not differential dropouts between prestige a non-prestige universities).
    - College-then-Major-Choice (Bordon et al (REStud 2015-6)): Can you run for engineering only?
    - Something else: Are differential lengths in graduating since enroll in their careers?

Thank You!!!!

Assumptions

- Faber and Gibbons (1996) "public learning, because all worker characteristics and performance ouctomes observed by the current employer are also observed by all market participants".

  Two strong assumptions:

  - wages equal expected output at each date,
  - stochastic component of a worker's output has a time-invariant distribution.

- Altonji and Peirret (2001), "information is common across firms and the labor market is competitive."

- Lange (2007), "all employers have access to the same information, labor markets are competitive, and a spot market for labor services exists."

- Bordon y Braga (2016) "employers share equal information about workers, labor markets are competitive, and there is a spot market for labor services."