

College Quality and Attendance Patterns: A Long-Run View*

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Purpose or Question Being Answered

- To view the changes in U.S. college admissions during the last century.
- To inspect the factors involved in choosing to go to college and how it has changed over the years.
- To examine the thought process of students over the years in selecting colleges.
- To see if either family characteristics or academic ability are a better predictor for college attendance across the years.

Theoretical Model

They created a static college admissions model that incorporates these factors: locations in the economy are numbered with each site having a single college and one new high school grad every year. The quality of the local college differs from location to location, but they are essentially the same. Each institution has an admissions policy that stipulates the level of skill required to get accepted. For many students, the decision is between attending the local community college, going to college elsewhere, or getting a job after high school. The quantitative analysis is done in two-fold with both colleges and students in consideration. For colleges, it is in consideration that they always aim for full-admissions each year, which differs depending on their quality and the ability of their students. As for the students, they follow the economic logic of maximizing lifetime utility by deciding whether or not (or where) to attend higher education.

Empirical Model

e_i ; enrollment , E ; maximum enrollment , $\bar{q}_i$; College endowments , $\underline{a}_i$; college criterion

a_i , $q_i = \bar{q}_i + \bar{a}_i$; college quality=college endowment+student ability

(a, p, z, l) ; (student endowments)= (ability, family background, noisy signals/time, location)

$\Pi_t = (p, z)$; pre-war , $\Pi_t = (p, z, s)$; post-war

$\max c_j \times \prod_{j=0}^J \beta^j \log(c_j)$ s.t. $\sum_{j=0}^J c_j R^{-j} = \sum_{j=0}^J w^H \beta^j R^{-j}$; life-cycle consumption cycle(choosing college or not)

$V(p, \Pi_t, l) = \log(p) + \alpha E a^h \log[\phi q \gamma l + (1 - \phi) a \gamma]^{1/\gamma} | \Pi_t + V^C$; total value of attending college

$\max V^H S_t + \bar{\eta} \Pi^H S, V(p, \Pi_t, l) + \bar{\eta} \Pi^H V, W(p, \Pi_t, l) + \bar{\eta} \Pi^H W$; lifetime utility of making a choice

Results

Before World War II, the college choice models were used to explain that a person's family background was a greater indicator of their likelihood of attending college than their academic abilities. Afterwards, high-quality colleges then increasingly used selective admissions processes to satisfy rising demand for higher education. A positive feedback loop encourages intelligent students to enroll in these programs. Likewise, low-ability students who can only attend less selective colleges lose interest in college.

Strengths & Weaknesses of The Study

The quantitative evaluation of this theory was able to formalize the connection between the indicators and demonstrate that the model may produce a major shift in enrollment trends. This not only provides a good description of how household and education economics have been shaped overtime in the United States after World War II, but also provides substantial economic evidence that supports changes in admissions throughout the time-series.

On the other hand, a major weakness of this paper is the timeframe they had selected since it is over half a century old at the time it is published. The reason they gave for only limiting the time-series to this period is that federal grant and loan programs were developed and extended after this period, making the premise of self-financing education not as applicable. To use this methodology for similar topics in the future, authors should put these factors into consideration in making their models.