

# A Study on Understanding College Admission Policies

**Prof. Nirja Sharan and Aditya Meher**

I/C Principal and Research Scholar

St. Rock's College of Commerce and Science, Borivali (W), Mumbai, India

sharan.nirja10@gmail.com and adityameher061@gmail.com

**Abstract:** *This paper empirically evaluates the effects of college admissions policies on high school students' academic effort. I build a rank-order tournament model where high school students decide their level of effort and whether or not to take the college admissions test, considering how those decisions affect their future university admissions chances. Using administrative Chilean data for the 2009 college admissions process, I structurally estimate the parameters of the model. Two affirmative action policies are simulated: (a) SES-quota system, which imposes the population's socioeconomic group (SES) distribution for each university; (b) increasing the weight of high school GPA in the admission final score. These simulations support the claim that affirmative action in college admission may boost the amount of academic effort exerted by high school students. I also find that while increasing the weight of high school GPA is more effective in boosting students' academic effort in high school, the SES-quota system is more efficient in allocating the best students to the best universities.*

**Keywords:** Grade, Point, Average, Application

## I. INTRODUCTION

There is a continuing debate about how to reduce socio-economic and racial segregation in universities. To this end, many countries have affirmative action programs, intended to increase college admission rates for targeted populations (e.g. specific races or SES). In general, existing evaluations of these programs focus on the application rates of students benefiting from affirmative action, and the academic performance of those who are admitted. However, the existing evaluations generally assume high school student behavior to be exogenous, which overlooks the potential impacts of these programs on the motivation of high school students.

Given that high school students may consider the impact of their effort levels on their university admissions chances and react to different admissions policies accordingly, the goal of this paper is to empirically address the effect of college admissions on high school student academic effort in response to policy changes. In particular, I estimate the structural relationship between college admissions policies, which determine the probabilities of being admitted by different universities, and the student's effort decision in high school. Then I use the estimated model to simulate the effect of different affirmative action policies on the academic effort of high school students.

I model the college admissions process and high school behavior in a static fashion, where students decide how much academic effort to make during high school, and whether to take the national college admissions test, which is mandatory for college applicants. The exerted effort positively impacts the expected performance in high school and on the college admissions test. In the model, there are different universities, each one offering two majors: scientific and humanities. Future payoff (after college graduation) depends on the university quality and the major studied. Because in the model universities have fixed and exogenous amount of seats for each major, the admissions process works as a rank-order tournament, such that the access of each student to universities depends on her individual performance relative

Admissions policies are based on a linear combination of high school grades and test scores that form a final score such that the equilibrium of the model is characterized by a minimum final score to be admitted in each major/university, named final-score cutoff. Intuitively, this final-score cutoff vector has a similar role as prices in a Walrasian equilibrium, in the sense that its value is set such that the number of students admitted to each university is equal to its

number of seats, and that conditional on this vector every student is making an optimal decision about taking the test and about how much academic effort to make.

The model is estimated using Chilean administrative data for the 2009 college admissions process. The database, which has 146,319 observations, contains individual information such as the scores of tests taken between 8th and 12th grade, measures of academic effort (e.g., attendance and GPA) and learning skills, and characteristics of families and of primary and secondary schools. Moreover, the database also includes Ministry of Education's data from tax declarations which links individual post-graduation wages to students' scores on the university admission test. The exceptional features and richness of this database are crucial in estimating structural relationship between high school student.

## II. REVIEW OF LITERATURE

**Historical Evolution:** Research has shown how college admission policies have evolved over the years. Studies often delve into the transition from early selective admissions to more inclusive policies, highlighting changes in the role of standardized tests and other criteria.

**Merit-Based vs. Holistic Admissions:** Scholars have extensively examined the debate between merit-based and holistic admission policies. They discuss the advantages and disadvantages of each approach, including the impact on student diversity and overall academic quality.

**Diversity and Inclusion:** A substantial body of literature explores how admission policies affect diversity and inclusion in higher education. Research often emphasizes the role of affirmative action in promoting diversity and the legal challenges surrounding such policies.

**Standardized Testing:** Standardized tests like the SAT and ACT have been a subject of extensive research. Scholars examine their reliability, validity, and their influence on admission decisions, as well as potential biases in these tests.

**Economic and Legal Factors:** Researchers have looked at the economic and legal dimensions of college admission policies. This includes discussions on the financial implications of admissions and the legal challenges institutions face in shaping their policies.

**Application Process:** Studies often delve into the application process itself, considering factors like essays, recommendation letters, interviews, and other elements of college applications. They analyze their relevance in admission decisions.

**Affordability and Financial Aid:** Literature also explores the connection between admission policies and affordability. This includes discussions on need-blind admissions and how financial aid packages can impact access to higher education.

**Public vs. Private Institutions:** Scholars have compared admission policies between public and private institutions. These comparisons often highlight differences in priorities, flexibility, and accountability.

**International Comparisons:** Some research extends its scope to international comparisons, examining how admission policies differ across countries and the implications for global higher education.

**Future Trends:** Recent literature discusses emerging trends in college admission policies, particularly in response to societal changes, technological advancements, and the challenges posed by the COVID-19 pandemic.

### 2.1 Objectives of the Research

1. To understand the college admission process.
2. To learn concept of Artificial Intelligence .

## III. RESEARCH METHODOLOGY

This study is based on Secondary data. Secondary data collected from various books, journal, internet, etc.

### Section snippets

The aim of this model is to capture in a rank-tournament framework how college admissions policies may affect the effort exerted by high school students. The basic idea of the model is that students compete for the (fixed and pre-determined) slots in the best universities through their performance in high school GPA and admission test scores.

Because for each individual what matters is her relative performance with respect to the other students, in principle the rank-tournament models with

The Chilean system for college admissions and description of the data

In the Chilean educational system, students can continue their studies after high school at different tertiary institutions, some selective (the best and most prestigious universities) and some not so (including some universities and technical institutions). In 2009, 29% of 18 25 year- olds were attending some type of tertiary institution. 11

The Chilean university system is highly structured: after knowing their final admissions score

Empirical specification and identification

Following the factor model literature, I assume that there are three unobserved variables for which I have measures (i.e., proxies):  $\lambda_i$  (learning skills), (student effort at primary school),

and (student effort at secondary school). The last is modeled in the paper, while the first two are treated as unobserved heterogeneity. Regarding this, I take advantage of the panel data in order to have measures of learning skills and student effort at primary school before the decisions modeled

Estimation

The estimation is carried out in two steps. In the first step, following the identification analysis presented above and the standard approach to dealing with measurement error in independent variables (both effort and learning skills), I can consistently estimate all the parameters of the test equations ((12) (15) and (17)) by a two-stage least square. In the first stage, one measure of each latent variable is regressed against all the other measures: high school attendance rate (the average)

The Impact of technology on college Admission's

### **Online Applications and Portal**

In recent years, the college admission process has been significantly influenced by the integration of online applications and portals. This section delves into the impact of this technology on college admissions.

### **Accessibility and Convenience**

Online applications have made the admission process more accessible to a wider pool of students.

Applicants can submit their materials from anywhere, reducing geographical barriers.

Increased convenience and reduced paperwork for both applicants and admission offices.

### **Application Management**

Colleges can efficiently manage a large volume of applications electronically.

Online portals allow admission committees to review applications collaboratively, often in real time.

Streamlined communication with applicants and notification of admission decisions.

### **Data Gathering and Analytics**

Online applications enable the collection of vast amounts of data on applicants.

Institutions can use this data for demographic analysis and to refine their admission strategies.

Predictive analytics may be employed to forecast enrollment trends.

### **Challenges and Concerns**

Digital divide: Not all applicants have equal access to technology, potentially exacerbating inequalities.

Privacy and security issues regarding the handling of personal data.

Technical glitches or system failures can disrupt the admission process.

### **The Role of AI in Online Applications**

Some institutions are exploring the use of artificial intelligence in application processing.

AI can assist in identifying trends and patterns among applicants.

Ethical considerations arise regarding AI's involvement in admission decisions.

**Customization and Personalization**

Online portals may allow applicants to tailor their applications to individual colleges.

Personalized experiences can enhance applicant engagement.

Institutions can tailor messages and information to specific applicants.

**Impact on Paper-Based Materials**

A shift towards online applications has reduced the reliance on paper-based materials.

This trend affects how recommendation letters, transcripts, and other documents are submitted.

Colleges may have to adapt their processes and policies accordingly.

The integration of online applications and portals has transformed the college admission landscape, providing greater accessibility, efficiency, and data-driven decision-making. However, challenges related to access, privacy, and the role of AI warrant careful consideration in the evolving admission ecosystem.

**Impact of the quota by socioeconomic group admission system**

To study the impact of affirmative action policies on effort, test scores, and the probability of taking the college admissions test, I begin by simulating the model under a quota by socioeconomic group admission system (SES-quota system), which imposes that, for each university tier, the SES distribution is the same as the population. In other words, if, in the whole system,  $x\%$  of the students attend high schools with socioeconomic group  $i$  (SES  $i$ ), then there should be  $x\%$  of students from each. It's essential for educational institutions to carefully consider these factors and work towards a balanced approach that promotes both diversity and merit while addressing systemic inequalities.

**IV. CONCLUSION**

The first lesson from this paper is that it is qualitatively and quantitatively important to consider how a college admissions system may impact high school students' behavior. Specifically, the results of this paper support the claim that affirmative action in access to college may boost the average of the academic effort exerted by high school students.

Moreover, this paper sheds some light on which admissions system could be optimal in the sense of inducing an efficient student allocation

**REFERENCES**

- [1]. J.B. Cullen et al.
- [2]. Jockeying for position: Strategic high school choice under texas' top ten percent plan Journal of Public Economics (2013)
- [3]. Time-use and college outcomes Journal of Econometrics (2004) P. Arcidiacono
- [4]. Affirmative action in higher education: How do admission and financial aid rules affect future earnings Econometrica (2005)
- [5]. P. Arcidiacono et al. Affirmative action in undergraduate education Annual Review of Economics (2016)