



# Screening mechanisms and student responses in the college market <sup>☆</sup>



Jonathan Smith\*, Michael Hurwitz, Jessica Howell

The College Board, 1919 M Street, NW, Suite 300, Washington, DC 20036, United States

## ARTICLE INFO

### Article history:

Received 18 March 2014

Revised 11 October 2014

Accepted 13 October 2014

Available online 7 November 2014

### JEL classification:

I2

### Keywords:

College application

College admission

Screening

Competition

## ABSTRACT

In light of the sizeable financial and time investments associated with obtaining a postsecondary degree, the choice of where to apply and enroll should be a deliberate and thoughtful process. In this paper we exploit changes in application fees and admissions essay requirements, to demonstrate that students strongly respond to small costs in the college application process. Using a new method to identify major competitors of each college, we find that these small screening mechanisms negatively impact application volume and divert student applications to colleges to which they otherwise would not have applied. There is limited evidence that measures of enrollment and retention are affected.

© 2014 Elsevier Ltd. All rights reserved.

## 1. Introduction

Attending college is increasingly both costly (College Board, 2013) and time consuming (Bound, Lovenheim, & Turner, 2012) and represents one of the largest investments people make in their lives. In many contexts, behavioral economics has improved upon standard economic models and results,<sup>1</sup> but with an investment as large as education, one would expect students to engage in a thoughtful and deliberate application and enrollment process that maximizes expected utility. However, there is an increasingly large literature that shows students are not behaving optimally in the college application and enrollment process. For example, students rely on rules of thumb when applying to colleges that results in too few applications (Pallais, 2013) and many

high-achieving low-income students fail to apply to or enroll in colleges that are academic “matches,” which can also be more affordable and have higher graduation rates (Hoxby & Avery, 2013). We offer new evidence that students respond to relatively small costs by examining the screening mechanisms that colleges in the United States implement to manage the applicant pool. Specifically, we investigate the use of application essays and application fees and show that small changes in these screening mechanisms have sizeable effects on applications and enrollment.

Higher education is a canonical example of a market that requires applicants and has a tradeoff when attracting applicants – there may be too few desirable candidates if there are too few applicants, but there may be too many undesirable candidates, who are difficult to distinguish from desirable candidates, if there are too many applicants. In the latter portion of the tradeoff, colleges run the risk of accepting undesirable students and rejecting desirable students. Hence, colleges frequently implement screening mechanisms.<sup>2</sup>

<sup>☆</sup> This research does not reflect the views of the College Board.

\* Corresponding author. Tel.: +1 202-741-4733.

E-mail addresses: [jsmith@collegeboard.org](mailto:jsmith@collegeboard.org) (J. Smith), [mhurwitz@collegeboard.org](mailto:mhurwitz@collegeboard.org) (M. Hurwitz), [jhowell@collegeboard.org](mailto:jhowell@collegeboard.org) (J. Howell).

<sup>1</sup> A review of the history, models, and empirical examples can be found in several places, including Mullainathan and Thaler (2001), Camerer and Lowenstein (2004), and DellaVigna (2009).

<sup>2</sup> This line of reasoning is discussed in Autor (2001) in relation to the “wiring” of the labor market.

However, the type of screen and magnitude of the associated costs imposed on the students are at the discretion of the college and have the potential to be quite small. While little empirical evidence exists regarding the effects of these small costs, the popular press provides anecdotal evidence of surprisingly large changes in application numbers in response to changes in application procedures. For example, Boston College added an application essay in order to improve yield and get the “best-suited” enrolling class, all by way of a dramatic decrease in the number of applications (Dunn, 2013; Hoover, 2013). Reed College eliminated its application fee in hopes of spurring more applications, particularly among low-income students (Kiley, 2013). However, these anecdotes lack the context to understand how much, if any, of the responsiveness is actually attributable to such changes, nor do they track the changes in application procedures to changes in student enrollment.

To investigate the effect of colleges’ screening mechanisms on student outcomes, we assemble aggregate application and enrollment data from the Annual Survey of Colleges (ASC) and Integrated Postsecondary Education Data System (IPEDS) on 885 four-year colleges for the entering cohorts of 2003–2011. In 2003, 49.8% of four-year colleges required an application essay and that number increased to 56.8% by 2011. Over the same time period, approximately 50% of colleges increased their application fees, at least once. Among colleges that increased application fees, the average increase was 30%, which only amounts to \$10.

We use within college variation in application-level screening mechanisms across the 2003–2011 cohorts to identify the effects admission essays and application fees on student application and enrollment behavior, as well as first-year retention. A natural concern with this methodology is that colleges are endogenously responding to changes in popularity by erecting such measures to reduce application volume. Although this would lead to coefficients biased toward zero, we address this possibility with a novel control for aggregate student interest in a college – the number of SAT Score Sends a college receives in the previous year, which we describe in more detail in the data and methodology sections.

With this methodology, we find that requiring an essay decreases the number of applications received at that college by 6.5%. We also find that increasing the application fee by 10% corresponds to almost a 1% decrease in applications. Also, unlike Liu, Ehrenberg, and Mrdjenovic (2007), the paper most similar to ours, we find that adoption of the Common Application by colleges yields no discernible impact on the number of applications received. This is in part due to an expanded set of covariates and perhaps due to a difference in sample years, in which the Common Application is already relatively diffuse.<sup>3</sup>

Next, we examine how these changing application policies affect enrollment. Overall, requiring an essay decreases the number of matriculants at an institution by 3.2%, but the

application fee has no discernible effect. However, Black and Hispanic enrollment is estimated to decrease by over 6% when an essay is required and by 1.1% when the application fee increases by 10%. We do not see evidence of heterogeneous effects by parental income or education.

Part of the rationale for having essays and application fees is to aid in the selection of a desirable class, by whatever terms the admission office deems appealing. A desirable class may confer advantages, such as better quality or matched students, which may improve retention and graduation rates (Light & Strayer, 2000). Similarly, an undesirable class can hurt the prominent statistics of a college, such as graduation rates, which may someday be tied to federal funding. In a result consistent with this notion, we find that requiring an essay increases yields rates, which are the fraction of accepted students who matriculate. This screening mechanism may help colleges identify students who are more likely to matriculate, perhaps because they are a better match. While an improved yield is generally appealing to admissions officials, so are higher SAT scores. However, there is no evidence that SAT scores of matriculants increases with the essay or application fee changes. Finally, we find that these application criteria have no impact on freshman retention rates, perhaps calling into question the assumption that these criteria serve to substantially improve match.

We then address whether a college’s decision to change screening criterion diverts applications and enrollees to its competitor institutions. If students are simply diverting their applications to competitor colleges, there may be no welfare loss, given that many competitors offer similar educational experiences. However, if students do not divert their applications but instead apply to fewer colleges, there may be a lower probability of enrolling in college (Smith, 2013) or a lower expected wages (Pallais, 2013). This is the first paper to have detailed evidence on each college’s competitors to perform this type of analysis. We identify competitor institutions through the universe of SAT Score Sends, which allow us to identify colleges that have the most overlap in student interest with one another. We find that when a college increases application fees, applications are nearly all diverted to its major competitor, but only a fraction of applicants are diverted to its major competitor when an essay is required.

This research adds to several strands of literature. First, it highlights the fact that students respond to seemingly small costs. Since college is such a large investment compared to writing a short admissions essay or paying an additional \$10 in application fees, it seems remarkable that small changes in application requirements have the power to influence student application or enrollment behavior. Nevertheless, there is a growing literature, both inside and outside of education, which suggests that people’s decisions overly rely on small cues, such as these screens. For example, people often rely on rules of thumb (Lacetera, Pope, & Sydnor, 2012; Pallais, 2013) or relatively salient information (Chetty, Looney, & Kroft, 2009; Finkelstein, 2009; Luca & Smith, 2013). These small cues are important in light of the numerous papers that demonstrate that students lack full information (Dillon & Smith, 2013). Related, students tend to over-respond to small and immediate costs such as financial aid offers (Cohodes & Goodman, 2014), financial aid forms (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2012), application fees

<sup>3</sup> Liu, Ehrenberg, and Mrdjenovic (2007) are primarily concerned with the diffusion of the Common Application but briefly address the effects of application fees, obtaining an estimate consistent with ours. This paper focuses on the effects of application fees and essays, with newer data and potentially important covariates, as well as exploring the effects of competitors, which their data cannot address.

Download English Version:

<https://daneshyari.com/en/article/354363>

Download Persian Version:

<https://daneshyari.com/article/354363>

[Daneshyari.com](https://daneshyari.com)