Abstract Title Page

Title: Screening Mechanisms and Student Responses in the College Market

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Abstract Body

**Background / Context:**
Understanding the effects of screening mechanisms in the college context helps to fill a gap in both the economics and education literatures. While there is ample theoretical research on screening mechanisms (Gibbons and Waldman, 1999) and empirical research on screening mechanisms conditional on applying to a college (e.g., Espenshade, Chung, and Walling, 2004; Long, 2004; Hurwitz, 2011) or a job (e.g., Cameron and Heckman, 1993; Dale and Krueger, 2002; Bertrand and Mullainathan, 2004), there is little research about the screening mechanisms used to attract or dissuade applicants and the efficacy of such efforts. In addition to a scant empirical literature, the magnitudes of any such effects are not immediately obvious. The popular press provides anecdotal evidence of surprisingly large changes in application numbers in response to changes in application procedures (Greisemer, 2010; Hoover, 2010; Dunn, 2013; Hoover, 2013). However, these anecdotes neither provide the context to understand how much, if any, of the responsiveness is attributable directly to changes in the college’s screening mechanisms, nor do they attempt to link changes in application procedures to changes in student enrollment.

Since the time and financial commitments of college are such large investments 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 both student application and 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 (Pallais, 2012; Lacetera, Pope, and Sydnor, 2012) or relatively salient information (Chetty et al., 2009; Finkelstein, 2009; Luca and Smith, 2013). Therefore, along with knowing little about the effect of changes to essays and application fees on enrollment and college choice, the potential for exacerbating behavioral responses make the effect of these changes on applicants’ behavior an empirical question.

**Purpose / Objective / Research Question / Focus of Study:**
This paper investigates how college applicants and enrollees respond to changing application procedures. We primarily focus on whether the number of applicants and types of enrollees changes after a college increases its application fees and changes whether it requires an admission essay. We also ask whether these changes in application procedures deter applicants from applying to any college or whether students apply to competing colleges.

**Setting:**
The research uses data on four-year colleges in the United States between 2003-2011.

**Population / Participants / Subjects:**
This research uses aggregate data for 890 four-year colleges in the U.S. This consists of a large fraction of all four-year colleges in the country. Therefore, it includes public and private colleges, selective and open enrollment colleges, across all 50 states. We not only observe the characteristics of the colleges, but we observe the number of applications received in each year and the types of students who matriculate (average SAT score, fraction of underrepresented minority, etc.).
**Intervention / Program / Practice:**
See below.

**Research Design:**
See below.

**Data Collection and Analysis:**
The main analysis uses a college fixed effects model. Identification comes from variation in application procedures by a college between the fall of 2003 and the fall of 2011. That is, we determine whether a college that adds an essay experiences a decrease in applications the following year, relative to trend found among the college’s peers. We also include in all models a host of other controls that may also affect college applications, such as tuition.

We also observe the responses of the college’s competitors to the introduction/elimination in essays and changes in application fees. An institution’s set of competitors is established from overlap in SAT score sending behaviors. Our research design allows us to examine whether a shock in the application process at one institution impacts the number of applicants/enrollees at competitor institutions. This analytic extension sheds light on whether an increase in application fees (for example) impacts the total number of applications submitted by students, rather than a re-shuffling of applications across colleges.

**Findings / Results:**
We find that adding an essay to the application requirements decreases the number of applications received at that college by 4.5 percent and eliminating an essay leads to an 11 percent increase in the number of applications. We also find that increasing the application fee by 10 percent corresponds to almost a one percent decrease in applications. However, we find little evidence that the composition of matriculants is affected by either of these changes in the institution’s application.

We also find that when a college increases application costs by adding an essay or increasing the application fee, applications are diverted to its major competitors. However, when a college removes an essay, there is an increase in applications, but they are not drawn away from the competing colleges. There is little evidence that a college’s potential enrollees are diverted to the identified major competitor when application costs are increased.

**Conclusions:**
The findings in this study show that students’ application behavior is steered by generally small changes in application processes. 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.

From an institutional perspective, there are several points of note. In the context of application essays, the additional personnel needed to evaluate applications for admission may not be justifiable in light of the fact that these screens appear to contribute little to “molding” of the first year class. This may be due in part to the effective screening mechanisms already in place,
conditional on applying. The results suggest that in this educational context, if colleges are to change the quality or composition of students, they may have to explore screening mechanisms other than application fees or admissions essays.
Appendices

Appendix A. References


