

## **Who Gets In and Why? An Examination of Admissions to America's Most Selective Colleges and Universities**

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### **Abstract**

This study advances our understanding of admissions practices at selective colleges and universities in the United States. An usually high survey response rate (82%, n=63) and in-depth interviews capture more selective institutions of higher education than prior research. Moreover, this study's mixed-methods approach makes it the most comprehensive analysis of elite admissions practices to date.

Findings reveal that elite institutions commonly group applicants into "pools" and that applications are compared within, but not across, pools. Certain pools receive preference, largely as a result of the perceived benefits of a particular applicant's background, academic characteristics, and exceptional talents, and their relationship with a university's needs. Other findings suggest that institutional "fit" is often more important than academic merit, that the rigor of high school courses is the most important indicator in determining an applicant's merit, and that money remains a tie-breaker.

**Keywords:** college admissions, college access, admissions decisions, higher education, university decision-making, affirmative action, socioeconomic diversity

## **1. Introduction**

### **1.1 The U.S. College Admissions Environment**

For decades, the general public has sought greater understanding regarding the ways in which selective colleges and universities in the United States admit students to their entering class. Over the years, a lack of understanding has resulted in a cynicism about the fairness of the admissions process, as definitions and calculations of merit appear to be fluid, intangible, arbitrary and overly subjective (Espenshade, Chung, & Walling, 2004). Since the attainment of a college degree is increasingly necessary to earn a living wage and education is seen as the principal means to achieve fiscal and political vitality, questions surrounding "who is admitted to college and why" are increasingly important to both the academic community and society at large (Karabel, 2005; Steinberg, 2003). Moreover, as admission at elite colleges and universities has become more selective (College Results, 2011), unraveling the mysteries of the admissions process has become a pressing matter for students, parents, educators, and college counselors.

This mixed-methods study provides a comprehensive analysis of elite admissions practices to date, which is something that appears to be missing in the current literature. A newly-developed survey is coupled with individualized accounts of these practices from Deans and Directors of

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Admissions (henceforth, Deans) at the nation's most selective colleges and universities to extend prior literature on college admissions. In this paper, the terms "selective" and "elite" are used interchangeably. For purposes of this study, the nation's 75 colleges and universities with the lowest acceptance rates are considered elite<sup>1</sup>. In demonstrating how Deans of selective colleges calculate merit for their institution and select among their applicants, this study dispels common myths of the admissions process.

The most groundbreaking finding from this study is that the majority of colleges and universities group applicants into "pools," based on their personal characteristics and exceptional talents; applicants are then chosen in comparison to others within their pool, but are no longer compared to applicants outside their pool. In addition, some pools receive significant preference over others. Students are most commonly grouped by such factors as minority status, athletic recruitment, level of financial need, and other variables that align with "institutional fit." This finding sheds light on why some students are admitted to college who may have inferior academic merit, meaning lower academic variables such as their high school grade point average, than rejected students.

This study also determined three additional findings. First, prior to sorting applicants into pools, 76% of elite colleges and universities first narrow down their applications by an initial examination of academic merit. This examination solely gauges whether an applicant passes as minimal threshold based on the cut-off criterion: "the capability to perform academically at this institution." In contrast, 21% of elite colleges first examine the "fit" between the college's needs and an applicant's qualities, before examining applicants' academic merit.

Second, across the institutions in this study, the rigor of courses an applicant completed while in high school<sup>2</sup> is the most important indicator in determining an applicant's academic merit. Quite simply, applicants who choose a more demanding route demonstrate their eagerness to learn, accept academic challenges, and push themselves; according to respondents, no other academic measures are able to illustrate these tendencies. This finding is presented in contrast to the commonly held assumption that standardized test scores and/or grades are the most important factors in determining an applicant's merit.

Lastly, this study found that elite institutions who are need-aware<sup>3</sup> continue to give preference toward high-income students. While this finding is perhaps less surprising, it plays out in radical ways and can significantly alter the composition of an entering class. Specifically, students who do not require any financial assistance are pooled separately from students who need some form of financial aid, and are then selected for admission at substantially greater rates than their financially-needy peers, holding constant other variables such as academic merit and institutional fit.

## 1.2 Background and Context

Students at elite colleges enjoy benefits such as a greater likelihood of degree completion, expanded access to graduate and professional study, and an increased wage premium (Carnevale & Rose, 2004), prompting intense competition for enrollment at these colleges (Astin & Oseguera, 2004). While competition for undergraduate admission to elite colleges has been fierce for decades, the recent surge in applications is unprecedented. For the class of 2015, the acceptance rate for the eight Ivy League schools ranged from 6% to 18% (IvySuccess, 2011). At the same time, selectivity at the

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<sup>1</sup> See the methodology section for more information on this distinction.

<sup>2</sup> In this paper, "rigor" refers to the extent to which an applicant completed the most difficult courses available at his or her secondary institution.

<sup>3</sup> The term "need-aware" denotes a college admission policy in which the admitting institution considers an applicant's financial situation when making admission decisions. Most private institutions are need-aware although there are a number of highly selective schools that are need-blind, meaning they do not take into account how much an applicant can pay when determining whom to admit.

nation's top public universities was approximately 23%, and the nation's top liberal arts colleges admitted between 15% and 25% of their applicants (College Results, 2011). Colleges are becoming more selective both because more students are applying and because individual applicants are applying to a greater number of postsecondary institutions (Clinedinst & Hawkins, 2012).

Escalating competition for access to elite colleges (Hoxby, 2009) has also prompted increased scrutiny of their admissions practices and a greater desire to understand the ways in which students are selected for admission. In response to the demand for information regarding student selection at top colleges, a variety of popular guides to college admissions have been written (e.g., Greene & Greene, 2000). However, these guides often conflict with one another and leave the public feeling frenzied by the resulting uncertainty. Consequently, this paper sheds light on the admissions process using empirical techniques while extending the work of scholars who have qualitatively examined this process at a small handful of elite colleges (Karabel, 2005; Soares, 2007; Stevens, 2007) and quantitatively analyzed admissions criteria on a large scale (Espenshade *et al.*, 2004; Espenshade & Chung, 2005).

### 1.3 Prior Research

Numerous books and articles have been written on the subject of college admissions. These publications fall into two overarching categories. The first examines the process of how students choose colleges to apply to. The second examines how colleges, in turn, select students. The majority of attention, particularly in empirical studies, has focused on the student decision-making side of the process (e.g., Chapman, 1981; Hossler, Braxton & Coopersmith, 1989; Manski & Wise, 1983; McDonough, 1997; Nurnberg, Schapiro, & Zimmerman, 2012), including the impact of tuition on that decision (Avery & Hoxby, 2004; Avery & Kane, 2004; Hoxby, 2009; Leslie & Brinkman, 1988; McPherson & Schapiro, 1996).

However, since this research examines colleges' selection of students, publications related to institutional decision-making are most relevant. All of the following studies offer useful insights, yet they are limited in two dimensions. First, several of them analyze admissions practices at one to three colleges, preventing generalizability. Second, many studies use either qualitative or quantitative methodology, preventing a combination of empirical analysis and individual perspectives.

Accounts of selective college admissions practices have attempted to reveal the ways in which students are selected for admission. Willingham and Breland (1982) conducted the first disaggregated study on admission to selective colleges by measuring the role of nonacademic factors in the admissions decision of nine liberal arts colleges. They found that colleges placed primary emphasis on academic factors (three times as much weight as personal characteristics) with high school rank and test scores carrying the most, and equal, weight. While some personal qualities positively impacted selection decisions (e.g., legacy status), they did not find that socially or economically privileged groups received preference (Willingham & Breland, 1982).

Similar studies have been conducted since then, most of which are analyses of individual colleges or compare three or fewer colleges. One of the most notable accounts of admissions practices is Karabel's *The Chosen* (2005), which chronicles admissions practices at Harvard, Yale, and Princeton. Karabel found that these selective institutions have continually defined and redefined the notion of merit to fit their own self-interests, particularly when examining students' "character" in addition to academic merit. While Karabel's book explicitly ties admissions practices to colleges' legacy and athletic preferences, he does not explicitly assess what criteria are used to determine students' academic merit. Similarly, Golden (2006) examined Ivy League admissions practices to conclude that these colleges do not practice "pure" meritocracy, but instead preference privilege by admitting legacies and wealthy applicants. Other similar studies of college admissions include Fetter's (1997) study of Stanford, Toor's (2001) analysis of Duke, Hernandez's (1997) assessment of Dartmouth, Soares' (2007) inquiry into Yale, and Steinberg's (2003) examination of Wesleyan;

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all of these studies identify ways in which students can improve their chances of being admitted to the designated college.

Single-institution studies provide a valuable level of in-depth detail, yet multi-institutional studies allow for increased generalizability. Several prior studies fit this criterion. Killgore (2009) utilized qualitative methods to study admissions practices at 17 selective institutions. She found that a) admissions officers at elite colleges consider academics broadly as the most important determinant for admission, b) elite colleges supplement their evaluation of student merit with a nonacademic composite scale similar to that used for academic achievement and c) colleges respond to their substantial need for financial stability and elite standing, by admitting more full-tuition paying applicants, increasing the yield rate, and decreasing the admissions rate (Killgore, 2009).

DesJardins, Ahlburg, and McCall (2006) studied admissions practices on a nation-wide scale and found that institutions attempt to admit students who will fit their institutional mission and goals, which often includes providing enough full-tuition paying enrollees, achieving a level of diversity in keeping with the institution's mission, and enrolling a class whose academic promise is congruent with faculty expectations. In addition, they found that admissions threshold scores and "review ranges" may vary for different groups of students (e.g., residents v. non-residents) (DesJardins *et al.*, 2006).

Moreover, Espenshade *et al.* (2004) completed a logistic regression analysis to examine the strength of admission preferences for underrepresented minority students, athletes, and alumni children at three highly-selective private research universities in the United States. They found that applicants who are African American, legacy recruits, or have SAT scores above 1500 receive the greatest preference, followed by Hispanic students and legacies (Espenshade *et al.*, 2004). In a follow-up study, Espenshade and Chung (2005) again used logistic regression, coupled with micro simulation techniques, to examine how preferences for different types of applicants influence the number and composition of admitted students at elite universities. They found that eliminating affirmative action would substantially reduce the share of African Americans and Hispanics among admitted students. In contrast, preferences for athletes and legacies have minimal effects on the likelihood of admission for minority groups (Espenshade & Chung, 2005).

Still other research has found that students are given preferential treatment for attributes including musical talent, rural background, lower socioeconomic status, gender, leadership skills, geography, alumni connections, and atypical life circumstances (Duffy & Goldberg, 1998; Fetter, 1997). In sum, these prior studies have highlighted important aspects of the college admissions process and help defy the myth that college is a complete meritocracy. In addition, from them, we can discern that legacies, athletic recruits, students of minority status, and wealthy applicants tend to receive preference when being admitted to college. However, we do not know the process utilized by admissions offices as they make their decisions nor how preferences for certain subgroups of students coincide with other factors utilized in making admissions decisions, including questions of institutional fit.

#### **1.4 Conceptual Framework**

This study is guided by an economics-based utility maximizing framework<sup>4</sup> to explain admissions-related university behavior. In this framework, Epple, Romano, and Seig (2008) examine how colleges compete for desirable students by redefining their admission and financial aid policies in order to maximize their "quality index." This index is explicitly created as a way to determine which applicants should be offered admission to postsecondary institutions. The authors contend

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<sup>4</sup> Other authors who have examined the provision of higher education through various utility maximizing frameworks include Ehrenberg, 1999; Fryer, Loury, and Yuret, 2003; Fuller, Manski and Wise, 1982.

that this index is comprised of the mean academic achievement of students, educational resources per student, income diversity, and racial diversity. While most utility maximizing frameworks opt for straightforward efficiency standards, this framework incorporates demographic characteristics as a means to improve the quality of the school. The authors demonstrate how colleges use color-blind signals of race to achieve diversity goals. They find that, when the proscription of affirmative action requires that admission policies are race blind, colleges use signals from income and academic indicators to reformulate their policies to determine who is an optimal student to admit. (Epple *et al.*, 2008).

Although the present article does not explicitly focus on the subject of diversity within admissions, the concept of utility maximization is useful in attempting to understand university behavior. Further, the authors' main conclusion--that colleges and universities will use any signals legally available to them in order to achieve their objectives (Epple *et al.*, 2008)—helps illustrate the ways in which colleges differentiate among applicants. As the authors note, colleges have individual sets of preferences and goals for the composition of their student body. While not obvious to external stakeholders (and sometimes internal stakeholders), these university goals and preferences are combined to develop a school's quality index. Colleges are continually striving to improve or maintain their quality index, yet not all colleges have the same goals and preferences. From this framework, questions remain, including the extent to which admissions procedures and criteria differ across the cohort of selective colleges and the ways in which institutional goals and preferences influence the admissions decisions made at these colleges. The present study attempts to answer these questions.

### **1.5 Research Questions**

This study asks the following research questions:

1. What is the process for determining admissions at the nation's most selective postsecondary institutions?
2. How do selective institutions rank the importance of certain academic and non-academic criteria in determining an applicant's merit and how are these criteria used in making admissions decisions?

## **2. Methods**

This mixed-method study utilizes a combination of survey and interview data.

### **2.1 Surveys**

A 20-item survey instrument designed to elicit the practices and criteria for determining admissions was developed upon the researcher's assessment that no previously developed questionnaires were appropriate to answer this study's research questions. The literature on college admissions was mined to develop questions to confirm or refute prior findings regarding practices and admissions criteria in selective college admissions. This survey was pilot-tested with 11 Assistant Directors of Admissions at elite colleges and five Directors of Admissions at less selective colleges. Revisions were made after each pilot survey administration to ensure clarity. To increase the survey's reliability, questions were grouped in the questionnaire that measured the same concept. Correlation values were then computed among the grouped questions to ensure that my instrument was internally consistent in measuring that concept.

The survey had multiple components. First, it inquired about the ways in which Deans rank a variety of variables related to the following four constructs: Academic Merit, Institutional Fit, Personal Character, and Demographics. Second, it asked respondents to rank order these constructs

based on their importance in determining whether an applicant should be admitted. Third, it asked open-ended questions related to the greatest obstacles in making admissions decisions and steps taken in the admissions process. Fourth, it asked questions related to the institution's acceptance rate, type, and the Dean's willingness to participate in a follow-up interview. The instructions assured respondents that their responses were completely confidential. Although the majority of Deans had experience in other institutions, they were asked to respond only for their current institution. Survey data were supplemented with demographic information for each institution.

The survey was administered online in the winter of 2011 to the top official in the admissions office at the nation's 75 most selective institutions. An institution's level of selectivity was determined by the "Percent of Students Admitted" variable attained from the Integrated Postsecondary Education Data System (IPEDS). This variable illustrates the percent of first-time, first-year, degree-seeking applicants who were admitted. Data on this variable were compiled over five-year time period 2007-2011, and the median score was used as the basis for determining which institutions to include in this study. However, it is important to note that this measure, like all selectivity measures, is flawed. Colleges have been known to use deceptive practices to inflate their application numbers in order to increase their level of prestige. Nevertheless, this measure of selectivity was selected since a more reliable measure does not exist. Military institutions were excluded from the sample since these institutions put significant weight on variables uncommon to most selective colleges in determining an applicant's admission. Three follow-up emails with a link to the survey were sent from January-February 2011.

The survey's final response rate was 84% (n=63). All institutions were four-year, not-for-profit, and of three types: private research university, public research university, or private liberal arts college. Tables 1 and 2 illustrate the survey's sample statistics. Table 1 presents all survey respondents by institution type. Table 2 presents survey respondents by their institution's undergraduate acceptance rate. To analyze the survey data, descriptive statistics were computed for all selected-response questions and themes were coded from open-ended questions.

**Table 1.** Survey respondents, by institution type

Institution Type	Number	Percent of Sample
Private research university	33	52%
Private liberal arts college	27	43%
Public research university	3	5%
<i>Total</i>	<i>63</i>	<i>100%</i>

**Table 2.** Survey respondents, by institution's undergraduate acceptance rate

Institution Type	Number	Percent of Sample
1-10%	2	3%
11-20%	17	27%
21-30%	14	22%
31-40%	26	41%
41-50%	4	6%
51-100%	--	--
<i>Total</i>	<i>63</i>	<i>100%</i>

## 2.2 Interviews

Just as no prior survey instrument adequately addressed this study's research questions, an appropriate interview protocol was unavailable. Thus, a 12-question, semi-structured interview protocol was designed to gain a more nuanced understanding of the admissions process at a representative sample of colleges and universities. This protocol was piloted with eight of the Assistant Directors of Admissions who completed the pilot survey and three of the Directors of Admissions. A subset of initial interview questions was developed from the literature, while the majority of questions were derived from preliminary survey findings. Questions addressed the following topics: the step-by-step sequence that took place in determining an applicant's admission; what type(s) of numeric ranking schema are used, if any; the institution's admission goals; the role of non-admissions personnel in determining admissions priorities; the greatest obstacles faced in the admissions process and in determining an applicant's merit; and how admissions criteria have changed over time. Like in the survey, respondents were assured that their responses were completely confidential and respondents were asked to respond for their present institution only.

The last question on the survey inquired whether respondents would be willing to take part in a follow-up interview. Approximately half of the respondents (n=34) replied affirmatively. From that group, a configuration of institutions that was representative of the larger interview sample was selected. Eighteen interviews with the Deans or Directors of Admissions at these institutions were conducted in early 2011. Tables 3 and 4 illustrate the interviewees' sample statistics. Table 3 presents all interviewees by institution type. Table 4 presents interviewees by their institution's undergraduate acceptance rate.

**Table 3.** Interview respondents, by institution type

Institution Type	Number	Percent of Sample
Private research university	9	50%
Private liberal arts college	7	39%
Public research university	2	11%
<i>Total</i>	<i>18</i>	<i>100%</i>

**Table 4.** Interview respondents, by institution's undergraduate acceptance rate

Institution Type	Number	Percent of Sample
1-10%	1	6%
11-20%	5	28%
21-30%	4	22%
31-40%	6	33%
41-50%	2	11%
51-100%	--	--
<i>Total</i>	<i>18</i>	<i>100%</i>

Each interview lasted between 60 and 75 minutes. Interviews were one-on-one, took place on the phone, and were audio-recorded. After transcribing each interview, an inductive method of coding was used to develop initial themes and then compare themes across participants. Once interview data were analyzed by themselves, they were compared to the survey data to determine areas of consistency, discrepancy, or extrapolation.

### 2.3 Limitations

This study has three central limitations. First, all data are self-reported. Moreover, many of the survey and interview questions have connotations associated with making certain choices, so there is a possibility that admissions personnel may have altered their answers to present themselves in a certain way. To increase the likelihood that respondents would answer honestly, the survey made explicit that individual answers were not linked to individual institutions. Instead, respondents simply filled out a few specified questions about their institution at the end of the survey (e.g., the school's acceptance rate and type). Moreover, all respondents were explicitly told that their names and the name of their institution would not be included in this study without their permission. Second, data are from one respondent at each institution. While the purpose of the study was to learn how selective postsecondary admissions offices are governed regarding practices and criteria, it is possible that the responses of Deans may not be generalize-able across the admissions office as a whole. However, given that Deans set the practices and criteria for their individual office, I do not anticipate that this would significantly bias my conclusions. Third, private colleges and universities were over-represented in this study while public universities were under-represented. This is important to keep in mind when generalizing the findings to all elite colleges.

## 3. Results

### 3.1 Colleges Initially Narrow down Their Applicant Pool Based on Academic Qualifications or Institutional Fit

The first step in the admissions process for 76% of respondents is to calibrate academic merit, also commonly referred to as an applicant's Intellectual Capacity. This step is administered as a "cut-off" mechanism to reduce the number of candidates to only those who demonstrate that they have the potential to handle the academic rigor and coursework of the institution. This is an a priori definition of "what it takes" to succeed at the university, with students whose academic merit exceeds that cut-off moving to the next stage, while those who do not meet the cutoff score are placed in a rejection pile. The surviving applicants are then placed into pools based on the college's needs. But a minority of institutions (21%) focuses first on issues of "fit" between a college's needs and an applicant's qualities. The remaining institutions first focus on another vague variable, entitled "personal character," which respondents explain as evidence of attributes such as leadership potential, persistence, and initiative (see Table 5).

**Table 5.** Which variable is most important in determining who to admit?

Variable	% of sample finding this variable most important
Academic Merit	76%
Institutional Fit	21%
Personal Character	3%
Diversity	0%

For those institutions that first examine an applicant's Academic Merit, numeric ranking schemas are used to develop an initial composite score that determines whether the application passes the first "cut." The data included in this numeric ranking schema are almost entirely quantitative. One private university Dean explained: "The first thing I look at is the academic credential. Specifically, we look at the HS transcript and the [high school] GPA that the student has earned. We look at the regular GPA and then we recalibrate our own weighted GPA—taking into



consideration IB, AP, and honors courses. We add points onto a student’s GPA for each additional advanced course.”

While the majority of institutions first examine academic performance, the weighted value of academic measures among the responding colleges is inconsistent. More than half (57%) first look at the rigor of an applicant’s high school courses, while 27% first study their applicants’ high school grade point average (see Table 6). Interestingly, standardized test scores and class rank are only examined after colleges determine that applicants have succeeded in sufficiently-challenging high school classes, which colleges learn from the rigor of an applicant’s high school courses coupled with the applicant’s high school grade point average. Moreover, respondents note that they use standardized test scores and class rank to determine merit less frequently than they did in the past<sup>5</sup>.

**Table 6.** Which variable is most important as you determine an applicant’s Academic Merit?

Variable	% of sample finding this variable most important
Rigor of high school transcript	57%
High school GPA	27%
High school context	7%
High school class rank	4%
Standardized test scores	4%

Respondents also explained why the rigor of high school courses plays such a predominant role. As one private university dean explained:

A large portion of time is spent trying to understand what an applicant has achieved relative to the opportunities s/he was afforded. Identifying whether students took the most challenging courses that were available to them helps us understand this. We don’t want to penalize students who were not offered opportunities but we also want to ensure that applicants took advantage of the opportunities they were offered.

This finding is presented in contrast to the commonly held assumption that standardized test scores and/or grades are the most important factors in determining an applicant’s merit.

Meanwhile, those institutions who first evaluate students based on “institutional fit” scour through their applicants’ student essays, recommendation letters, list of extracurricular activities, and interview reports (generally in that order) to determine whether there is a match between institutional needs and applicant characteristics. This match is more difficult to quantify and is also highly variable from year-to-year. One private, liberal arts college Dean who takes this approach noted, “Admissions can be grossly overrated with over-precision. A quantitative measure predicated on differences in measures and scales? It’s a human-process. I want to hear what humans said [about an applicant].” During interviews, Deans were explicit regarding which approach they used and what applicant qualities they sought, but not what their bottom thresholds were for rankings.

When asked which variable was most important when determining an applicant’s fit, respondents were evenly divided between membership in an under-represented group and

<sup>5</sup> This study did not differentiate between institutions that were test-optional and those requiring standardized test scores, which may be a reason for institutions’ limited reliance on standardized test data. In addition, the frequency with which high schools are calibrating class rank has decreased over time. For more information, see <http://www.nacacnet.org/research/PublicationsResources/Marketplace/Documents/ClassRank.pdf>.

exceptional talent (42% each) (see Table 7). Further, when asked what “membership in an under-represented group” means, several respondents clarified that it is not simply based on race, ethnicity, or income status, but that it could be under-represented in terms of academic interests, life circumstances, geography, or “a host of other factors.”

**Table 7.** Which variable is most important in determining an applicant’s institutional fit?

Variable	% of sample finding this variable most important
Membership in an under-represented group	42%
Exceptional talent	42%
Recruited athlete status	7%
Yield likelihood	7%
Development potential	2%

Regardless of which approach they employed, Deans specified some of the questions with which they are concerned while selecting students. These questions include: How would the student contribute to the university community? How would our college community differ if this individual went to school here? How would the student benefit from being here and make use of the opportunities that we offer? Can he or she do the work? Where would they have fallen in the previous year’s candidate pool? What are the factors that we see in their application that might predict success at our institution? As Bowen and Bok (1998) explain, the notion of “merit” cannot be identified through a singular message such as a test score. “Deciding which students have the most ‘merit’ depends on what one is trying to achieve” (p. 25). Such goals, they argue, are linked to the mission of the university. Elite colleges have countless competing priorities when crafting a class: academic excellence, undergraduate research, sports teams and artistic endeavors, finances, racial and economic diversity, global connections, their own prestige. “No student that we admit is being admitted because they represent single quality X,” says Jeffrey Brenzel, Dean of undergraduate admissions at Yale University” (Supiano & Fuller, 2011, p. 3).

Moreover, regardless of how elite institutions go about narrowing their applicant pool, they attempt to systematize their admissions practices to decrease within-school variance through a variety of venues. Colleges often have a protocol that is exceptionally clear within the admissions office regarding the order in which they assess certain variables and specific portions of students’ applications. Examples of these variables include high school GPA, the rigor of the courses a student completed while in high school, a student’s race/ethnicity, and the types of extracurricular activities in which a student is involved and the nature of his/her involvement.

Similarly, colleges conduct a series of analyses at the end of each admissions season to increase efficiency, equity, and test new strategies. Examples of these analyses include determining the best predictors of an applicant’s future performance, examining how GPAs should be re-calculated to ensure equity across students from various secondary schools, and calculating whether certain admissions officers have internal preferences for certain types of students (e.g., athletes or musicians). Third, complex indices and applicant reports are common as applications are read and re-read to ensure reader consistency and alignment with institutional goals, particularly for applicants who are on the cusp of admission. Lastly, Deans meet with several internal constituents—including the Board of Trustees, President, and faculty members—to receive feedback on the quality of students they admit and to determine what specific groups of students should be more heavily admitted in the future. When asked how Deans know whether they are

choosing the right students, many mentioned that they speak to others within the school community. One Dean said, “If the faculty is happy, our starting point is what we did last year.”

### **3.2 Applicants are Sorted and Compared Within, But not Across, Pools**

This study found that many selective institutions sort applications into “pools” based on pre-determined criteria. Further, applicants are compared within their pool, but not across pools. Sorting into pools happens at different times for different institutions. For most colleges, it happens immediately upon determining that a student has a baseline level of academic merit. However, for a minority of schools, it happens before academic merit is calculated and is a component of examining an applicant’s institutional fit.

At many schools, applicants are sorted based on four qualities—their minority status (or lack thereof), whether one of their parents was an alumnus of the institution (henceforth referred to as legacy applicants), their ability to pay full tuition (versus the need for some type of financial aid<sup>6</sup>), and their “exceptional talents,” meaning whether they have a talent or attribute that the college is seeking.

Students are admitted from all pools, but some pools receive preference, including students who are non-white U.S. citizens, students who can pay full tuition, legacy applicants, and students who have a talent that is seen as being desirable, or needed, by the institution. For everyone else—meaning non-legacies, non-athletic recruits, students who do not have a perceived exceptional talent, and those who are unable to pay full-tuition without financial aid—it is essentially a fierce competition, based on academic merit, for a finite number of spots. Further, since some colleges and universities pool students before examining their academic variables, disparities may arise between the levels of academic merit of certain subgroups of students.

One private university Dean explained his reasons for pooling,

The hardest part is that everyone [in the school community] wants more of something and it’s a balancing act—it’s a zero sum game. Size [of the school] is fixed, but faculty, trustees, etc. want more students of color, more athletes, more great pianists...But who will you cut out to have more of those people? We get so many of those really strong kids who don’t have that extra something...it’s starting to make the world angry with us.

Most of the variables that receive preferential treatment—including one’s color, financial status, and parental alma mater—have been previously identified in the literature, and are commonly known preferences to those inside and outside admissions offices. In addition, they are not variables that students can readily change in an effort to increase their chances of admissions. However, this last variable—institutional fit—or whether the student has an attribute that the college is seeking—is not fixed, and may include students’ academic and extracurricular interests. As one liberal arts college Dean explained,

In one year, we may hire three new, outstanding chemists, who are in need of chemistry students to work in their lab. Thus, we sort out all the students who show a propensity toward chemistry, and choose to admit a higher number of those applicants than applicants who are interested in humanities or economics. But then, the next year, we hire a new orchestra director who claims that we don’t have a suitable flautist, so we do the same for potential flute players. It never stops. And it’s not necessarily ‘fair’ but it is what we, as an institution, need to do.

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<sup>6</sup> This only applies to need-aware institutions.

Thus, applicant qualities aligning with institutional fit change yearly and are likely different from one institution to another. Moreover, this information is not publically disseminated, which contributes to the feeling that admissions processes and criteria are arbitrary. Further, while students are sorted into pools, and some pools receive preference based on institutional needs, this study found no evidence of quotas in the admissions process at any of the schools in this study.

### **3.3 Money is often the Tie-Breaker**

Lastly, this study found that elite institutions that are need-aware continue to give ‘fairly substantial’ preference to high-income students. Referring back to this study’s first finding, this plays out in radical ways, as students who do not require any financial assistance are pooled separately from students who need some form of financial aid. Financially-independent students are then selected for admission at greater rates than their financially-needy peers, holding constant other variables such as academic merit and institutional fit.

Moreover, at need-aware schools, an applicant’s ability to pay full tuition (versus a need for some type of financial aid) is often a tie-breaker. According to several admissions deans, this variable can significantly alter the composition of an admitted class. One Dean stated, “The last thing that we look at is money—whether the student has the money to pay—because we are a tuition-driven institution. This probably applies to 10-15% of the applicant pool. Also, although this question remains till the end, it can determine a student’s acceptance.” Thus, in many cases at need-aware institutions, if a school is ambivalent regarding whether a student should be admitted, the school will choose students who have the ability to pay full tuition.

## **4. Discussion**

This study’s findings have implications for a variety of stakeholders and interest groups. Moreover, this study’s main finding—that highly selective colleges and universities often sort students based on pre-defined characteristics prior to examining their applications in depth—extends prior literature on college admissions, which stops short of highlighting the process admissions offices use to demonstrate their preferences for certain types of students. The following discussion suggests some of the consequences of elite institutions’ admissions practices and what these practices mean for applicants interested in attending elite colleges. This study delineates the ways that selective colleges and universities give preference to certain types of applicants, and offers an extension of the types of populations receiving a leg up in admissions decisions. “Pooling” or sorting of applicants based on certain characteristics, resonates with Epple *et al.*’s (2008) utility maximizing framework. In particular, it aligns with these authors’ assertion that postsecondary institutions differentiate among applicants and give preferences to certain populations of students in order to fulfill their institutional (and admission) goals (Epple *et al.*, 2008).

The most obvious implication of selective institutions’ pooling techniques relates to the debate around affirmative action. The process of affirmative action has created controversy for several decades, and was the platform for the *Fisher v. University of Texas* Supreme Court case. While this paper extends beyond a focus on affirmative action, it is important to note that providing racial and ethnic preferences for non-white students has resulted in greater college access opportunities for such applicants. Specifically, Carnevale and Rose (2004) conducted a study of the nation’s most selective 146 institutions and found that race-based affirmative action tripled the representation of blacks and Hispanics. Similarly, in 2005, Bowen and colleagues found that being an underrepresented minority increased one’s chance of admission by nearly 28 percentage points (Bowen, Kurzweil, & Tobin, 2005).

Nevertheless, whether the Supreme Court decides to curtail the use of racial and ethnic preferences in admissions, institutions will find new ways to preference students based on their

philosophical and institutional goals. For example, seven states have eliminated racial and ethnic preferences at state colleges and universities and in two additional states, highly-selective institutions have dropped race from admissions decisions (Kahlenberg & Potter, 2012). Instead, these states and institutions have now adopted admissions preferences for low-income and working class students of all races, thus attempting to ameliorate the advantages of high-income upbringing and favoritism afforded to full tuition-paying applicants (Kahlenberg & Potter, 2012). Meanwhile, selective institutions in several states have dropped legacy preferences and some have instead adopted policies to admit students who graduated at the top of their high school classes (Kahlenberg & Potter, 2012). These are all means of offering an additional leg up to particular populations of students, thus confirming another of Epple *et al.*'s (2008) findings. Namely, that colleges use signals from income and academic indicators to reformulate their admissions policies when race is omitted as a variable (Epple *et al.*, 2008).

It is also valuable to point out that many populations, other than students of color, are advantaged and disadvantaged by this type of student selection technique. As previously mentioned, “winners” of this system include athletic recruits, legacies, wealthy applicants, and applicants with exceptional talents, among others; this affirms prior research that preference is often afforded to wealthy applicants, as well as legacies, thereby perpetuating the status quo (DesJardins *et al.*, 2006; Golden, 2006; Killgore, 2009). It also confirms colleges’ athletic preferences (Golden, 2006; Karabel, 2005). The most notable “losers” of pooling are low-income students who are not considered an under-represented minority. Yet other students who are disadvantaged include those who do not have an exceptional talent (or who fail to clearly demonstrate their talent to admissions committees), those who are seen as too similar to others who are applying to the same institution in the same year, and those who are not seen as filling a compelling, and immediate, institutional need. These students are grouped together into one large pool, but since they are not receiving any preference, they have a lower chance of acceptance than any of the other pools, holding constant academic merit.

Like Epple *et al.* this study finds that colleges have individual quality indices that are comprised of a variety of consistent constructs. As one public university Dean explained, “The needs of the nation and the realities of the marketplace require us to approach college admissions with metrics that encourage competition in areas that really matter and in ways that send strong educational messages to students, families, governments—and ourselves.” However, while Epple *et al.* suggest that these indices are mainly comprised of the mean academic ability of students, educational resources per student, income diversity, and racial diversity, the findings here indicate that a more holistic view of these indices would include constructs of academic merit, institutional fit, demographics, and personal character. Income and racial diversity are both related to this study’s demographics construct. Meanwhile, Epple *et al.*'s mean academic ability of students construct aligns with this study’s academic merit construct. Still, the main source of divergence is that the constructs of personal character and institutional fit are key components of the admissions process, according to this study, whereas Epple *et al.* do not include such unobservable characteristics. Adding these constructs to economic models of university behavior would allow researchers to account for more variation within and across colleges.

Moreover, as Epple *et al.* (2008) posit, and this study confirmed, postsecondary institutions will use any means legally available to meet their objectives. Considering that quotas for certain subgroups are no longer legal, colleges often fulfill their objectives via different matrices and criteria for subgroups of students. While these various matrices and criteria are clear to admissions officers, the disparities between the mean scores of different subgroups may cause the general public to question why one person with a 2400 SAT was not admitted while a student with a 2300 was. The important lesson to remember is that, from the institutional-end, the application process is

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neither random nor uninformed, and that a great deal of thought and precision goes into determining how to assess applicants.

Furthermore, this study demonstrates why students are denied admission even when elite institutions are convinced that their Academic Merit is sufficiently high. Colleges must select students who are academically qualified, and the data in this study illustrate that the majority of colleges differentiate between students by their level of academic merit. But, after that, it is about class-building and selecting individuals who will further the college's mission and enrich its campus. As other scholars have found (DesJardins *et al.*, 2006), colleges choose students based on their own institutional needs. For example, one former admissions officer explained (Donehower, 2003, p. 1):

At many institutions, to be judged a success, the admissions director must enroll the desired number of students while simultaneously improving the class profile. Ideally, each incoming class should have average SAT scores and a grade-point average at least as high as, if not higher than, the previous class, and should contain more students of color. That is in addition to having the desired number of men and women; alumni children; students with special talents in athletics, music, mathematics, etc.; and, last but not least, the required number of students who can pay full tuition.

In addition, some Deans question the extent to which students will succeed in college simply because they have sufficient Academic Merit. One private university Dean stated:

Probably 80% of the kids who apply would do fine here, so it's challenging because we wait list and defer students and deny students with 4.0s and kids with almost perfect SAT scores. They could theoretically do well here but we have concerns about whether they will work hard. These are slight nuances and explaining those to parents and kids is a real challenge.

Standardized test scores are commonly referred to as the principal variable with which admissions decisions are made. In Killgore's multi-institutional analysis of college admissions, she notes: "Academic merit is fairly straightforward and is readily accepted by most observers. The most common measures include standardized test scores and high school GPA" (2009, p. 471). However, this study did not confirm this finding for the elite colleges and universities in the United States. In fact, this typical, yet inaccurate, assumption may clarify why some applicants who had perfect SAT scores but lacked the motivation to push themselves in school were rejected by top colleges. Unfortunately, this myth is continually confirmed by test preparation companies (e.g., Kaplan) and high school counselors who are unfamiliar with how to help their students through the college admissions process.

As this study's analysis indicates, several other variables are more important in determining one's Academic Merit than standardized test scores. In particular, this study found that the rigor of the courses taken by an applicant while in high school is the most important indicator. A Dean of a public university explained: "The students that we seek are those that have 'bloomed where they are planted' taking the most challenging curricula afforded them, going beyond expectations and exhibiting real motivation and intellectual curiosity." Many Deans explained why they no longer use SAT/ACT scores in making admissions decisions. One private university Dean stated: "Selective colleges [like mine] expect students to successfully pursue the most challenging curricula offered to them.... Pursuing the most rigorous curriculum signals academic motivation and excelling in that curriculum suggests that the student is well prepared for academically strenuous college classes." While high school GPA and standardized test scores were once the most common variables used to determine one's merit, several Deans explained that the shift to rigor of an

applicant's transcript is due to a) grade inflation, b) research indicating that standardized test scores are relatively arbitrary and biased, and c) increasingly sophisticated regression analyses demonstrating that the rigor of an applicant's high school transcript is the most predictive variable of students' future success in college.

This finding conflicts with prior studies from past, such as Willingham and Breland's 1982 analysis, or Killgore's (2009) study, suggesting that high school grades and standardized test scores are most important. Another Dean noted, "You should not only value something because it is measurable but because of its importance of predicting something you care about in the future. So, in particular, the SAT is not on the same level in terms of validity as the transcript. The SAT is fading into the background in our selection process." It is also for this reason that many colleges are now test-optional and/or eliminating standardized tests from consideration in admissions decisions (De Vise, 2011; Espenshade & Chung, 2011).

Lastly, one must not forget that money also influences admissions decisions. As this study found, the vast majority of highly selective institutions are not only need-aware, but they put a thumb on the scale in favor of high-income students. In fact, because of the financial downturn and finite financial aid budgets, many selective colleges are significantly prioritizing an applicant's ability to pay in making admissions decisions. This point may be surprising given the political and media attention paid to increasing college access for low-income students. Several deans explained that this has resulted in rejecting students with higher Academic Merit, and who are also a better fit for the university, in favor of applicants who are able to pay full-tuition.

Returning to this study's conceptual framework, Epple *et al.* place substantial emphasis on economic variables---including both educational resources per student and income diversity. Given the importance of admitting sufficient numbers of full-tuition paying applicants, this is understandable and these variables cannot be overemphasized. Moreover, this study confirms the findings of Killgore (2009) and DesJardins *et al.* (2006) regarding the pressure institutions feel to meet their financial goals when making admissions decisions.

This finding parallels trends across selectivity levels. According to a 2011 survey of admissions directors across all sectors of higher education, enrolling more "full-pay" students is a top goal of admissions directors nationwide (Jaschik, 2011). This is confirmed by statistics on college-going at selective colleges. Carnevale and Rose (2004) conducted a study of the nation's most selective 146 institutions and found that high-income students outnumber their low-income peers by 25 to one. Despite pressure to serve more low-income students, and explicit statements affirming their commitment, few highly selective colleges have significantly increased the number of Pell Grant recipients (a common proxy for low-income students) in their admitted classes (Supiano & Fuller, 2011).

However, it also brings into question whether continually favoring high-income students is deterring low-income students with similar academic merit from applying to elite institutions. As Hoxby and Avery (2012) explained, most of the 35,000 high-achieving low-income students (meaning those with test scores in the top 10 percent and their income in the bottom quarter) who graduated from high school last year did not apply to elite institutions, or institutions that were a good fit for them in terms of their academic merit. This phenomenon, commonly known as "undermatching," may be due to a variety of factors. Hoxby and Avery (2012) suggested that the most oft-cited reasons include that applicants rarely use application-fee waivers, apply to too few colleges, fail to understand how financial aid would lower their cost of college, and rely on word of mouth to choose which colleges to consider. However, another reason may simply be that, if these students know other, similarly qualified students who applied to those schools and were rejected,

they would be less inclined to go through the financial and logistical difficulty of applying themselves.

## 5. Conclusion

This study presents the most in-depth analysis of admissions practices at selective colleges and universities to date. An unusually high survey response rate (82%, n=63) combined with process-oriented interviews (n=18), allows for greater generalize-ability across selective institutions than in prior studies. Its central finding is that highly selective colleges and universities commonly group applicants into “pools,” based on their personal characteristics and exceptional talents. From there, applicants are compared within, but not across, pools, with certain pools receiving preference. Other findings reveal that 76% of colleges first narrow down their applicant pool by examining academic merit while 21% first examine the “fit” between a college’s needs and an applicant’s qualities, that the rigor of high school courses is the most important indicator in determining academic merit, and that money (i.e., whether a student requires financial aid) is often the tie-breaker in making admission decisions. This research aims to improve understanding of elite admissions practices for the general public, the policy community, and first-generation college goers in their quest for selective college admissions.

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