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Who Goes Early?: A Multi-Level Analysis of Enrolling via Early Action and Early Decision Admissions

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Background/Context: *Several studies have identified that applicants who apply to college via early admissions programs tend to be White and affluent. Because researchers have also identified benefits with applying early, akin to a 100 point boost on the SAT, such programs raise questions around equity in the college admissions process.*

Purpose/Objective/Research Question/Focus of Study/Research Design: *We used cross-classified hierarchical generalized linear modeling to examine predictors of enrolling due to being admitted through an early decision or early action program in a national dataset of 88,086 students. Although research has investigated the types of institutions that tend to offer early action and early decision programs, the types of students who apply to these programs, and the types of high schools that they come from, no prior study has examined these three contexts simultaneously.*

Findings/Results: *When controlling for high school, individual, and institutional characteristics, receiving private college counseling was the strongest predictor of enrolling due to early admissions. We suggest that elevated levels of cultural capital help explain why White and affluent students are more likely to enroll via early admissions.*

Conclusions/Recommendations: *Our findings indicate that early admissions programs, and in particular, early decision, perpetuate social privilege and stratification. At a minimum, institutions need to look inward and ask serious questions about the patterns of who applies and is accepted via early policies, and the implications of offering advantages to students who generally already are advantaged in the admissions process.*

"I think there are lots of very talented students out there from poor and moderate-income backgrounds who have been discouraged by this whole hocus-pocus of early admissions by many of the nation's top colleges," -William R. Fitzsimmons, Harvard College's dean of admissions and financial aid upon Harvard's announcement to end its early action program (quoted in Finder & Arenson, 2006).

"Penn plans to continue with its successful early-decision plan . . . It's worked well for us, and the quality of the students we're getting is exceptional." -Lee Stetson, University of Pennsylvania dean of admissions (quoted. in Yale Alumni Magazine, 2002).

As these two quotations show, institutions continue to disagree on the value of early admissions programs. While only a small proportion of all institutions have early admissions programs, the National Association for College Admission Counseling referred to them as "…fixtures of the college admissions landscape" (Clinedinst, 2008). In recent years, early action and early decision programs in college admissions have received greater scrutiny, as some institutions, including Stanford and Yale, have moved from early decision to early action and others, such as Harvard, have ended all early admissions. Early decision and early action are the primary two types of early admissions programs offered by a number of higher education institutions. As the names suggest, both types of programs have earlier deadlines than applications under regular decision. In early decision, students must sign an agreement that they will attend the institution if accepted. Because of the binding nature of early decision programs, students are strongly urged to apply only to one school under the policy. Early action programs are non-binding, as they do not require students to attend if accepted; however, applicants under early action programs receive earlier notification of acceptance, denial, or deferral (Avery, Fairbanks, & Zeckhauser, 2004).

Although research has investigated the types of institutions that tend to offer early action and early decision programs, the types of students who apply to these programs, and the types of high schools that they come from, no study has examined these three contexts *simultaneously*. Drawing from the conceptual framework of cultural capital, this research employs cross-classified hierarchical generalized linear modeling (CCHGLM) to examine how high school, college, and student-level characteristics predict students' decision to enroll in a college due to being admitted via an early action or early decision program.

BACKGROUND

Research on early admissions is critical due to the policy's role in the college admissions process, particularly at selective and highly selective institutions. Although the institutions that offer early admissions programs serve a relatively small sector of students in the entire postsecondary education system, the high value and prestige attached to a college degree from an elite institution cannot be understated (Espenshade, Hale, & Chung, 2005; Karabel, 1984). Graduates from these institutions make up a disproportionate number of leaders in society. The entire industry that has formed around the college applications process reflects the high amount of competition for these limited spots (McDonough, 1994).

The proportion of students who reported that being admitted through early action or early decision was an important factor for their college choice process increased steadily from 6.9% in 1999 to 10.9% in 2006 (Pryor, Hurtado, Sáenz, Santos & Korn, 2007). Finding a precise measure of how many institutions have these programs is difficult; of the 382 institutions that responded to the National Association for College Admissions Counseling's Admissions Trends Survey, 18.3% had early decision programs and 25.2% had early action programs. In 2007, 49% of institutions reported increases in early decision applicants and 81% reported increases in early

action applicants (Clinedinst, 2008). Although these figures reflect trends in early admissions for more recent years, institutions have used such practices for decades. Beginning in the mid-1950s, institutions such as Harvard, Princeton, and Yale introduced versions of early action and early decision programs to gain advantages over their competitors for attracting the best students (Avery et al., 2004).

The primary controversy over early admissions programs centers around whether they give an unfair advantage to students from higher income families or from high schools with greater resources, as these students generally already have a leg up in the selective college admissions race (McDonough, 1997). Because students agree to attend an institution if accepted through early decision, students who can afford to attend a college regardless of the financial aid package are more likely to apply early than students who need to compare offers of financial aid (Lucido, 2002). Some institutions have responded to this criticism by replacing early decision programs with non-binding early action programs (Farrell, 2006; Flores, 2002). Still, because of the earlier deadlines, early action programs may also attract students with higher levels of college-going knowledge or financial resources.

While colleges often tout that early admissions programs allow them to secure a group of highly motivated students who are committed to attending their institution, institutions also use early admissions policies for enrollment management. Colleges benefit from early admissions through a signaling aspect, as students may demonstrate their enthusiasm and likelihood of commitment through applying early (Avery & Levin, 2009). Prior to 2003, the *U.S. News and World Report* college rankings included yield, and critics of early decision suggested that colleges had an incentive to use such programs in order to increase yield. The magazine dropped yield in its calculations of rankings in 2003 (Steinberg, 2003). Still, early decision programs can assist institutions in their enrollment projections for the incoming class of students by pushing up the deadline for students to commit to a college (Clinedinst, 2008).

Early admissions programs also offer certain advantages to students who utilize them. Besides the comfort of knowing whether they are accepted into an institution earlier in the year, early applicants are often accepted at higher rates than students who apply at the regular deadline (Avery et al., 2004; Chapman & Dickert-Conlin, 2008). Fallows (2001) notes that, during the 1999-2000 school year, Yale admitted 37% of early applicants but only 16% of regular applicants; Amherst 35% of early applicants and 19% of regular applicants; and the University of Pennsylvania 47% of early applicants and 26% of regular applicants. One explanation for this pattern is that a stronger, more motivated pool of students applies early; but how do early applicants compare to students applying by the regular deadline, and does applying early actually offer an advantage in the admissions process when student background characteristics and prior levels of academic achievement are held constant?

Avery et al. (2004) did not find evidence to support the claim that the pool of early applicants had notably higher levels of academic achievement compared to the regular pool; however, colleges accepted early applicants at significantly higher rates than regular applicants. Using student records from applicants to 14 highly selective institutions, they found that students who applied early action had SAT scores about 10 to 20 points greater than students who did not apply via early action. Early decision applicants had SAT scores that were slightly lower than

regular applicants. They concluded that students who applied to college under early decision or early action programs had a substantial advantage in the admissions process approximately equivalent to a 100-point increase in a student's SAT. Using multiple regression, they found that applying through early action increased an average applicant's chances of being accepted by at least 15% at 11 of the 14 institutions and that applying early decision increased chances by at least 25% at all of the institutions.

Chapman and Dickert-Conlin (2008) found similar results in their examination of applications from two northeastern liberal arts colleges. They concluded that early decision applicants had significantly lower SAT I and SAT II scores, as well as lower GPAs, than regular decision applicants. Early decision applicants came from zip codes in which median household income was on average $3,000 more than regular applicants. They had a lower likelihood of showing intent to apply for financial aid, and early applicants were less likely to be minorities and were more likely to be legacies. Addressing the lower academic credentials of early applicants, Chapman and Dickert-Conlin (2008) suggest that their findings provide "some evidence that students are acting strategically when applying early decisions in response to a view that applying early increases the probability of acceptance" (p. 15). Holding all background variables constant, applying via early decision increased the probability of acceptance 58% at one college and 45% at the other institution. Chapman and Dickert-Conlin observe that, although early applicants tend to have lower academic credentials, they also have a willingness to pay. Although Chapman and Dickert-Conlin's study adds to what Avery et al. (2004) found about early applicants, it only analyzes data from two institutions.

These and other studies have found that more affluent students have both the financial resources to apply early as well as an understanding of the possible advantages of applying early (Avery, Fairbanks, & Zeckhauser, 2000, 2001; Ehrenberg, 2003; Kim, 2007). Students from higher socioeconomic backgrounds typically enter the college admissions process with a number of advantages, such as the ability to pay for college, stronger academic preparation, and access to resources such as private college counseling (McDonough, 1997). Based on his analysis of a theoretical model of need-blind schools with early decision policies, Kim (2007) notes that early policies give colleges with need-blind admissions policies "a screening mechanism to indirectly identify a student's ability-to-pay, while superficially maintaining a need-blind policy. As a result, in equilibrium, non-financial aid students are more likely to be admitted than financial aid students of comparable quality" (viii). Further privileging already advantaged students via early admissions programs raises troubling questions about the equity of such policies. *The Journal of Blacks in Higher Education* (1999) found that few Black students apply through early decision programs, citing the inability to compare financial aid packages as the primary reason. Avery et al. (2004) found similar results, concluding that early applicant pools tend to be disproportionately White and from higher income families.

Although students apply to colleges as individuals, we also know that opportunities to apply to college are mediated through social structures, such as high schools, which are in turn stratified by socioeconomic status and race (Clinedinst, 2008; Grodsky & Jackson, 2009). Although individual characteristics (e.g., students' SAT score and socioeconomic status) have been examined in studies of applying early (Avery et al., 2004), research has largely ignored the role that students' high school context plays in both the decision and ability to apply early. Previous

work overlooks how larger contextual effects from both students' high schools and their prospective higher education institutions may influence a student's ability and eventual decision whether to apply to an institution via an early admissions program. Multiple studies have examined the relationship between students' college application and/or enrollment patterns and high school context (Engberg & Wolniak, 2009; Espenshade et al., 2005; McDonough, 1997; Teranishi, Allen, & Solórzano, 2004; Wolniak & Engberg, 2007). All of these studies affirm that high schools play a role in facilitating or constraining opportunities for students to gain college-going knowledge, receive advanced academic preparation, and apply to college. They also vary markedly in how they promote a college-going culture (McDonough, 1997; McClafferty, McDonough, & Nunez, 2002). Thus, we find it pertinent to include the institutional context of students' high schools in understanding patterns of applying early.

At the same time, college characteristics likely play a role in a students' decision to apply early. Students aspiring to enroll at more selective colleges may apply early to college to increase their chances of gaining admission to their first-choice institution (Ehrenberg, 2003). Another asset of our study is that previous studies have focused on early applicant patterns at a limited number of highly selective institutions or liberal arts colleges, while our analysis includes students at 290 higher education institutions. Thus, our study draws on an unprecedented dataset that provides information about students' individual characteristics, high school traits, and postsecondary institutional characteristics.

CONCEPTUAL FRAMEWORK

Drawing from prior studies and their previously noted limitations, this study incorporates the conceptual framework of cultural capital to understand how individual and institutional forces affect enrollment via early admissions. Cultural capital refers to how privilege tends to accumulate within certain cultures or subgroups due to the generational transference of resources, attitudes, or knowledge (Bourdieu, 1986; Bourdieu & Passeron, 1977; Lamont & Lareau, 1988; Lareau & Weininger, 2003). Lareau and Weininger (2003) maintain that Bourdieu's concept of cultural capital has been most commonly utilized to refer to how the high culture and refined tastes of elites serve as proxies for privilege, status, and advantage in the educational process. Viewing this interpretation as too narrowly restricting Bourdieu's intent, Lareau and Weininger argue in favor of a definition that emphasizes the "micro-interactional processes whereby individuals' strategic use of knowledge, skills, and competence come into contact with institutionalized standards of evaluation" (p. 597).

We look at enrollment via early admissions as being influenced by forms of cultural capital related to both material advantages *and* knowledge in three venues: the individual student, his or her high school, and his or her ultimate college destination. First, students from higher socioeconomic backgrounds likely have more material resources to invest in the college application process, which they can use to purchase services such as private college counselors, who may offer advice on the advantages of applying early (McDonough, Korn, & Yamasaki, 1997). Social class mediates habitus, an ingrained way of viewing opportunities and forming expectations (Bourdieu & Passeron, 1977), and McDonough (1997) proposed that habitus influences the way students assess whether college, and what type of college, is appropriate for them. Thus, students from higher income backgrounds are more likely to have families and peers

that cultivate expectations around attending college (McDonough, 1997), and not just any college, but the selective and highly selective institutions that offer early admissions programs.

Economic advantage connects to the resources that are offered at various high schools such as academically rigorous college preparatory tracks and high quality college counseling (Venezia & Kirst, 2005). Thus, high schools represent a second, closely related way that elevated levels of cultural capital may influence early application and enrollment patterns. To apply early, students must have the necessary college-going knowledge, which is often circulated more widely in more privileged environments or well-resourced high school settings (McDonough, 1997; Oakes, Rogers, Lipton, & Morrell, 2002). Coupled with this form of college-going knowledge are other strategies that help students navigate the application process, such as the advantages of taking standardized tests earlier or multiple times. AP courses may also foster peer environments that promote the exchange of college-going strategies because students enrolled in these courses strengthen their level of academic preparation to make their college applications more competitive and to earn college credit. Engaging in such high school environments that foster college-going knowledge may attune students to the utility of applying early, opening the door for enrollment due to early admissions.

Finally, early admissions programs actually act as a form of cultural capital by perpetuating social privilege in the admissions system at the collegiate institutional level. The definitions of cultural capital as both circulated knowledge and material resources that perpetuate privilege intersect at the collegiate level, wherein college-going knowledge, more likely to be circulated in wealthier high schools and families, is met by material rewards: a greater chance of admission at a prestigious institution. Students with higher levels of the cultural capital valued in the selective college admissions process, such as college-going knowledge and material resources, already have an overall advantage in the highly competitive college admissions environment (Oakes et al., 2002). If these are the students who are more likely to apply early, as previous work suggests (Chapman & Dickert-Conlin, 2008; Lucido, 2002), early admissions policies can perpetuate these advantages by giving them as much as a 100-point boost on the SAT (Avery et al., 2004)—an additional privilege to the already privileged. Cultural capital also comes full circle, from the individual student to the institution he or she potentially enters via early admission. Because wealthier students do not have to compare financial aid packages, they are more likely to apply early decision, and, in turn, colleges often admit these students at higher acceptance rates than students who apply at the regular decision deadline (Kim, 2007).

Guided by this conceptual framework that outlines the various intersections between cultural capital and applying early, this study seeks to understand the individual, high school, and college characteristics that influence students' decisions to enroll in college via early action or early decision programs. Specifically, this study intends to address the following research questions:

Controlling for students' background characteristics, do student-level characteristics such as their perceptions of their academic abilities, socioeconomic status, and receiving private college counseling affect the likelihood of a student enrolling via early admissions?

Controlling for student-level characteristics, does the rate at which students enroll via early

admissions vary across high schools? If so, do the number of AP courses, the number of counselors, and the college-going rate of students from the high school account for this variation?

Controlling for student-level characteristics, does the rate at which students enroll via early admissions vary across higher education institutions? If so, do factors such as region, control, institutional expenditures, and selectivity account for some of this variation?

METHODS

DATA AND SAMPLE

This study utilizes student, high school, and college data collected by the Cooperative Institutional Research Program (CIRP) within the Higher Education Research Institute (HERI). In 2005, more than 300,000 first-year college students completed the Freshman Survey (TFS), which asked students questions regarding high school involvement, aspirations, and attitudes, among other things. Data from the Freshman Survey were merged with the 2000 College Board High School Survey, which includes information on the high schools that TFS respondents had attended.[1] We also merged college and university data collected from the Integrated Postsecondary Education Data System (IPEDS) into the same dataset.

Given this study's focus on predictors of students' likelihood of enrolling via early decision or early action plans, we excluded institutions and their associated students from the sample if the college or university did not have an early action or early decision program available to applicants. In order to determine whether an institution had an early admissions program, we relied on information provided by the College Board website. The final analytic sample for this study features more than 88,068 students originating from 4,491 high schools and situated within 290 colleges and universities across the U.S.

VARIABLES

We derived the dependent variable from an item on the 2005 Freshman Survey. The exact wording of the item was: "Below are some reasons that might have influenced your decision to apply to this particular college. How important was each reason in your decision to come here?" One option was "I was admitted through an Early Action or Early Decision program," and students had the option of choosing "not important," "somewhat important," or "very important." We coded students responding "somewhat important" or "very important" as having enrolled via an early admission program; conversely, we coded students who responded to this item by selecting "not important" as likely having applied or been accepted via an early admission program. This coding scheme resulted in a dichotomous dependent variable that served as a proxy as to whether a student enrolled at the institution via an early application. We realize that this variable represents an imperfect proxy because a student could have been admitted via an early program but not marked it as important in picking the college. Thus, our variable likely represents a conservative approximation of enrollment via early action or early decision.

To predict students' likelihood of engaging in early admissions processes, we included a number of student-level variables in the model. We controlled for demographic characteristics such as race, gender, parental income, and parental education. In particular, race, parental income, and parental education are thought to influence levels of cultural capital (Lareau, 1987, 2003; McDonough, 1997; Roscigno & Ainsworth-Darnell, 1999; Wells, 2009). We used dichotomous race variables representing Black, American Indian, Asian American, Latino, and "other race" students, respectively, with White students representing the reference group. The dichotomous gender variable had men as the reference group. Income represented a self-reported variable from the survey and ranged from 1 (less than $10,000) to 14 ($250,000 or more). The parental education variable controlled for the highest level of education earned by either parent and ranged from 1 (grammar school or less) to 8 (graduate degree). Finally, we controlled for the extent to which students expressed concerns about their ability to finance their college education.

In addition to the demographic characteristics, we controlled for key high school experiences as well as students' reasons for pursuing a college degree. In the model, we included the extent to which students' parents and private college counselors influenced their decision to enroll in college to reflect how parental encouragement and counselors may serve as sources of cultural capital (McDonough et al., 1997; Perna, 2006). We also examined whether attending a college because of a desire to prepare for graduate school had a significant association with students' decision to apply early. Walpole (2003) found that lower socioeconomic status students were less likely to attend graduate school than higher socioeconomic status students, which she attributed to differences in cultural capital.

Additionally, we created two factors that refer to students' academic self-confidence as well as commitment to academic and professional success. The academic self-confidence factor included five items from the Freshman Survey: academic ability, drive to achieve, mathematical ability, intellectual self-confidence, and writing ability. The academic self-confidence factor had a Cronbach's alpha of 0.62, which falls slightly below the recommended reliability threshold for the social sciences (Pehauzar & Schmelkin, 1991). We included four items related to goals in the construction of students' commitment to future success. These four items included: becoming an authority in my field, obtaining recognition from my colleagues for contributions to my special field, being well off financially, and becoming successful in a business of my own. The Cronbach's alpha for this factor was 0.66. The final block of student-level variables in the model controlled for students' intended major in college. We included dichotomous variables referring to the following groups of intended majors: science, technology, engineering, and math; arts and humanities; social sciences; and the professions, which include business and education. Students who were undecided in their intended major comprised the reference group.

In addition to student-level variables, we examined several high school characteristics. We controlled for the type of high school a student attended: private Catholic, private other religious affiliation, and private non-religious schools compared to public high schools. The model also controlled for the high school's counselor-to-student ratio, calculated by dividing the number of counselors in a high school by the total enrollment of the high school. Additionally, we examined a variable measuring the total number of AP courses available to students within a particular high school. These variables offer insight into the type of resources and opportunities available to students for advanced academic preparation and, likely, a more informed college

search process (Oakes et al., 2002; Solórzano & Ornelas, 2002). Finally, we controlled for the region of the country in which the high school was located.

Our last grouping of variables examined the influence of specific college and university characteristics potentially related to enrolling via early admissions. We controlled for public institutions compared to private and also included a control for the geographic region of the institution. Key variables of interest included institutional expenditures on research, instruction, and financial aid per full-time-equivalent student. Additionally, we examined the association between students' decision to apply early and institutional selectivity, as measured by average Standardized Aptitude Test (SAT) scores. A number of studies rely on average SAT scores of entering students as a measure of institutional selectivity (Chang, Cerna, Han, & Saenz, 2008; Hurtado, Eagan, Cabrera, Lin, Park, & Lopez, 2008; Titus, 2004, 2006). The expenditure and selectivity data serve as proxies for institutional prestige, which prior research suggests influences students' likelihood of applying early (Ehrenberg, 2003).

ANALYSES

The complex dataset used in this study provided an opportunity to consider how college, high school, and individual factors uniquely affect enrollment via early admissions. To account for these unique effects, we employed cross-classified hierarchical generalized linear modeling (CCHGLM). This advanced statistical technique accounts for the multiple clustering effects of students within high schools as well as students within colleges and universities (Raudenbush & Bryk, 2002). This type of analysis enables us to partition group-level variance between students' high schools and their colleges and universities. Additionally, this technique represents an appropriate method to examine the effects of independent variables on a dichotomous dependent variable. Using CCHGLM enables us to simultaneously consider how student-level traits and experiences, college variables, and high school characteristics interact together to facilitate or discourage students' decision to enroll via early admissions. Most current research draws only from student and college data or from student and high school variables, or, in the most limited of studies, from only student-level data.

Other studies that have examined early admissions have tended to use single-level statistical techniques, which ignore the clustered nature of the data, to estimate the multi-level effects influencing students' application patterns (see, for example, Avery et al., 2004). By using the advanced techniques offered through CCHGLM, we link the environmental contexts of students' high schools and higher education institutions with students' individual characteristics to provide the most comprehensive depiction of the factors affecting enrollment via early decision and early action programs.

When constructing a hierarchical generalized linear model, it is important to begin with the null model, also known as the fully unconditional model since it has no predictors. Because of the dichotomous nature of the dependent variable, the level-1 sampling model is Bernoulli, as represented in Equation 1:

$$\text{Prob}\,(Y_{ijk} = | \beta_{ijk}) = \Phi_{ijk} \qquad (1)$$

Generally, use of hierarchical linear modeling techniques requires consideration of the extent to which the outcome measure varies across groups (Raudenbush & Bryk, 2002). In models with a continuous outcome, the variation attributed to groups can be found through the intra-class correlation (ICC). Because of the non-normal distribution of the variance in the outcome at level-1, the ICC is not instructive for our model. Instead, we examined box-plots of Empirical Bayes (EB) residuals to determine the extent of variation across high schools and across colleges in students' average likelihood to enroll via early decision or early action. Seeing substantial variation across both types of contexts (colleges and high schools), we proceeded to build the level-1 and level-2 models in CCHGLM. Equation 2 represents the student-level model:

$$\text{Log}\left[\frac{\Phi_{ijk}}{1-\Phi_{ijk}}\right] = \pi_{0jk} + \pi_{1jk}\,(\text{Female})_{ijk} + \pi_{2kj}\,(\text{Race})_{ijk} \tag{2}$$
$$+ \pi_{3jk}\,(\text{High School GPA})_{ijk} + \pi_{4jk}\,(\text{Income}) + \pi_{5jk}\,(\text{Parental Support})_{ijk}$$
$$+ \pi_{6jk}\,(\text{Prepare for grad school})_{ijk} + \pi_{7jk}\,(\text{Time spent talking with teachers})_{ijk}$$
$$+ \pi_{8jk}\,(\text{Financial concerns})_{ijk} + \pi_{9jk}\,(\text{Private counselor advice})_{ijk}$$
$$+ \pi_{10jk}\,(\text{Parental education})_{ijk} + \pi_{11jk}\,(\text{Intended major})_{ijk} + \pi_{12jk}\,(\text{SAT})_{ijk}$$
$$+ \pi_{13jk}\,(\text{Academic self-confidence})_{ijk} + \pi_{14jk}\,(\text{Commitment to academic success})_{ijk}$$

where π_{0jk} corresponds to the average likelihood of a student applying to college via early action or early decision at college *j* from high school *k*, $\pi_{1\text{-}14}$ corresponds to the fixed effect of each student variable on an individual's probability of applying to college via an early action or early decision program. The level-2 model is given by Equation 3:

$$\pi_{0jk} = \theta_0 + \gamma_{01}\,(\text{Instructional Expenditures})_j + \gamma_{02}\,(\text{Research expenditures})_j \tag{3}$$
$$+ \gamma_{03} * (\text{Region})_j + \gamma_{04} * (\text{Public})j + \gamma_{05}\,(\text{Selectivity})_j$$
$$+ \gamma_{06}\,(\text{Cost of attendance})_j + \gamma_{07}\,(\text{Average aid per student})_j$$
$$+ \beta_{01}\,(\text{Total enrollment})_k + \beta_{02}\,(\text{Number of AP courses})_k$$
$$+ \beta_{03}\,(\text{High School Type})_k + \beta_{04}\,(\text{Counselor-Student Ratio})_k$$
$$+ \beta_{05}\,(\text{Region})_k + b_{00j} + c_{00k}$$

where γ corresponds to the fixed effect for any college-level variable at institution *j*, β represents the fixed effect of any high school variable at high school *k*, and *b*00j and *c*00j represent the residual random effects of colleges and high schools, respectively, on π_{0jk} after taking into account the predictors included in the model (Raudenbush & Bryk, 2002). We constrained all level-2 parameters to be fixed across all colleges and schools. Similarly, we did not allow level-1 parameters to vary across high schools or across colleges.

Finally, utilization of CCHGLM necessitates consideration of centering. We left all dichotomous variables in the model un-centered. We centered the ordinal and continuous variables in our model around their grand mean (Raudenbush & Bryk, 2002). Centering affects the interpretation of the intercept in the model. Because we are not interested in examining effects of the average students within specific schools but rather effects of the average student in the sample on the decision to apply via early action or early decision programs, we chose to grand-mean center the

continuous variables.

LIMITATIONS

This study has several limitations. First, because we relied on secondary data in our analyses, we were limited by the variables and definitions included in the dataset. The survey did not include some data that may be helpful in understanding factors that might influence a student's decision to apply early, such as the overall college-going rate of the high school. Additionally, we relied on a derived survey item to construct our dependent variable. As discussed earlier, our proxy for enrolling via early admissions does not include students who indeed were admitted through an early program and enrolled at the school but did not rate that program as important. We also cannot distinguish between students who applied early decision and those who applied early action. Second, our data are not fully representative of the entire college-going population, which may limit the generalizability of our findings. Third, we relied on data from 2005 and 2006 to identify institutions with early action or early decision admissions programs. Because the students in our sample made application and enrollment decisions during the 2004 calendar year, we may have unintentionally excluded institutions, and their associated students, that eliminated early admissions programs between 2003 and 2005. Finally, although CCHGLM has a number of advantages over single-level logistic regression, it requires a substantial amount of data. Because of this limitation, we had to eliminate high schools and their associated students from our sample if fewer than five students from a particular high school had completed the 2005 Freshman Survey.

RESULTS

DESCRIPTIVE STATISTICS

Table 1 presents descriptive statistics for the individual, college, and high school variables included in the study. Descriptive analyses of the data indicate that 31% of students were admitted via an early decision or early action program. Analyses show that 78% of our sample identified as White, 9% as Asian American, 6% as Latino, and 6% as Black. Approximately 58% of students in our sample identified as female, and the average self-reported high school GPA was a B+. Students appeared modestly concerned about their ability to finance their college education, and the average student had at least one parent with a college degree.

Table 1. Descriptive statistics of variables included in the analyses

	N	Mean	S.D.	Min.	Max
Dependent variable					
Enrolled via early action or early decision program	88068	0.31	0.46	0.00	1.00
Student-level variables					
Female	88068	0.58	0.49	0.00	1.00
Black	88068	0.06	0.24	0.00	1.00
American Indian	88068	0.01	0.12	0.00	1.00
Asian American	88068	0.09	0.28	0.00	1.00
Latino	88068	0.06	0.23	0.00	1.00
High school GPA	88068	6.61	1.31	1.00	8.00
Parental income	88068	9.84	0.28	1.00	14.00

Reason for college: parents wanted me to go	88068	2.19	0.76	1.00	3.00
Reason for college: to prepare for graduate school	88068	2.52	0.68	1.00	3.00
Hours per week spent talking with teachers outside class	88068	2.61	1.10	1.00	8.00
Concerns about being able to finance college education	88068	1.71	0.64	1.00	3.00
Chose this college because a private college counselor advised me	88068	1.17	0.44	1.00	3.00
Highest level of education attained by either parent	88068	6.46	1.64	1.00	8.00
Major - professions (education, business)	88068	0.23	0.42	0.00	1.00
Major - social sciences	88068	0.15	0.36	0.00	1.00
Major - arts and humanities	88068	0.12	0.33	0.00	1.00
Major - science, technology, engineering, math	88068	0.39	0.49	0.00	1.00
SAT composite score (100)	88068	12.25	1.54	4.00	16.00
Academic self-confidence	88068	0.12	0.99	-5.13	2.28
Commitment to academic/professional success	88068	-0.04	1.00	-2.58	2.04
College variables					
Instructional expenditures ($1,000)	290	11.34	8.35	2.70	71.86
Research expenditures ($1,000)	290	2.60	7.88	0.00	84.28
Region - Northeast (reference group)	290	0.19	0.39	0.00	1.00
Region – Middle east	290	0.28	0.45	0.00	1.00
Region - Great Lakes	290	0.12	0.33	0.00	1.00
Region – Plains	290	0.04	0.20	0.00	1.00
Region - Southeast	290	0.21	0.41	0.00	1.00
Region - Southwest	290	0.02	0.15	0.00	1.00
Region - Rocky Mountains	290	0.01	0.10	0.00	1.00
Region - Far West	290	0.12	0.33	0.00	1.00
Public	290	0.16	0.37	0.00	1.00
Selectivity (100)	290	11.51	1.26	7.75	15.10
Cost of attendance ($1,000)	290	30.51	8.57	10.40	44.00
Average aid per student ($1,000)	290	10.48	5.64	0.70	24.54
High school variables					
Total enrollment	4491	1230.67	772.26	10.00	5266.00
Number of Advanced Placement courses	4491	9.26	5.90	0.00	31.00
Type - private, non-religious	4491	0.06	0.24	0.00	1.00
Type - private, Catholic	4491	0.12	0.33	0.00	1.00
Type - private, other religion	4491	0.04	0.20	0.00	1.00
Type - public (reference group)	4491	0.80	0.20	0.00	1.00
Counselor-student ratio (*100)	4491	0.14	0.07	0.00	10.00
Region - West	4491	0.20	0.40	0.00	1.00
Region - South	4491	0.23	0.42	0.00	1.00
Region - Mid-Atlantic	4491	0.23	0.42	0.00	1.00
Region - Mid-west	4491	0.23	0.42	0.00	1.00
Region - Northeast (reference group)	4491	0.13	0.33	0.00	1.00

The high schools in the study had an average of one college counselor for every 700 students; however, some high schools appeared to have no college counselors on staff. On average, high schools reported offering just more than nine AP courses. Approximately 80% of high schools in the sample were public. Average enrollment among the high schools hovered just above 1,200

students. Finally, the highest concentrations of feeder high schools in our sample were located in the Midwest, mid-Atlantic, and Southern regions whereas the lowest concentration of high schools was in the Northeast.

Among the colleges and universities represented in the dataset, institutions spent an average of $11,335 per FTE student on instruction and $2,597 per FTE on research. Only 16% of colleges and universities in the sample were publicly controlled. The colleges and universities in our sample had a moderate level of selectivity, as the mean SAT score of entering students was 1,151 for the average institution.

CROSS-CLASSIFIED HIERARCHICAL GENERALIZED LINEAR MODELING RESULTS

We report the results from the analyses in Table 2 using delta-p statistics for easier interpretation, and we use the method recommended by Petersen (1985) to calculate the delta-p statistics. Delta-p statistics can be interpreted as the change in students' probability of enrolling via early admissions associated with a one-unit change in the independent predictor. The student-level predictor with the strongest association with applying early was having received advice from a private college counselor. Students who reported choosing their particular higher education institution based on the advice of a private college counselor were approximately 14% more likely to enroll via early action or early decision compared to their peers who did not receive such advice.

Table 2. Results from CCHGLM Analyses Predicting Enrollment via Early Action or Early Decision

	Log-odds	S.E.	Delta-P
Student-level variables			
Female	0.12	0.02	2.62%
Black	-0.44	0.04	-8.56%
American Indian	-0.04	0.07	
Asian American	-0.29	0.03	-5.84%
Latino	-0.20	0.04	-4.11%
High school GPA	0.09	0.01	1.96%
Parental income	0.02	0.01	0.43%
Reason for college: parents wanted me to go	0.05	0.01	1.08%
Reason for college: to prepare for graduate school	0.06	0.01	1.30%
Hours per week spent talking with teachers outside class	0.02	0.01	0.43%
Concerns about being able to finance college education	-0.10	0.01	-2.10%
Chose this college because a private college counselor advised me	0.60	0.02	14.01%
Highest level of education attained by either parent	0.02	0.01	0.43%
Major - professions (education, business)	0.18	0.03	3.98%
Major - social sciences	0.11	0.03	2.40%
Major - arts and humanities	0.01	0.03	
Major - science, technology, engineering, math	0.10	0.03	2.18%
SAT composite score	-0.09	0.01	-1.89%
Academic self-confidence	0.02	0.01	0.43%
Commitment to academic/professional success	0.03	0.01	0.65%
College variables			
Intercept	-1.69	0.15	

Instructional expenditures	0.01	0.01	
Research expenditures	-0.01	0.01	
Region - Middle East	-0.02	0.10	
Region - Great Lakes	-0.09	0.13	
Region - Plains	-0.18	0.19	
Region - Southeast	0.15	0.11	
Region - Southwest	0.02	0.23	
Region - Rocky Mountains	0.86	0.37	20.50%
Region - Far West	0.27	0.12	6.05%
Public	-0.34	0.16	-6.77%
Selectivity	0.18	0.05	3.98%
Cost of attendance	-0.01	0.01	
Average aid per student	0.03	0.01	0.65%
High school variables			
Total enrollment	-0.01	0.01	
Number of Advanced Placement courses	0.04	0.02	0.86%
Type - private, non-religious	-0.01	0.04	
Type - private, Catholic	-0.11	0.04	-2.30%
Type - private, other religion	-0.02	0.05	
Counselor-student ratio	0.06	0.03	1.30%
Region - West	-0.20	0.04	-4.11%
Region - South	0.04	0.03	
Region - Mid-Atlantic	0.17	0.03	3.75%
Region - Mid-west	-0.05	0.03	
Model Statistics			
College-level variance	0.26		
College-level variance explained	30.19%		
High school-level variance	0.05		
High school-level variance explained	83.56%		
Overall level-2 variance explained	33.23%		

Note. Only parameters significant at $p < 0.05$ have delta-p values calculated. Source: Analysis of data from the 2005 CIRP Freshman Survey, 2000 College Board high school survey, and 2005 Integrated Postsecondary Educational Data System.

Black (delta-p = -8.56%), Asian American (delta-p= -5.84%), and Latino (delta-p = -4.11%) students had significantly lower probabilities of enrolling through early programs compared to their White classmates. Women appeared to have a slightly higher probability (delta-p = 2.62%) than their male counterparts to enroll in college through early action or early decision programs. Parental income (delta-p = 0.43%) and parental education (delta-p = 0.43%) had significant, positive, yet modest, associations with students' likelihood of enrolling via early programs.

Considering students' academics, the results indicate that as students' high school grade point average increased, their probability of applying early significantly increased (delta-p = 1.96%). We found a significant negative association between students' composite SAT score and their likelihood of enrolling via early admissions. For every 100-point increase in composite SAT scores, students experienced a 1.89% reduction in their probability of enrolling via early

admissions. In comparison, Avery et al. (2004) found that early *action* applicants had slightly higher SAT scores than regular applicants, while early *decision* applicants had slightly lower SAT scores. Given our inability to distinguish between students who were admitted via early action versus early decision, this finding merits further investigation in future research.

Students who reported receiving encouragement from parents to pursue a college education (delta-p = 1.08%) and students who wanted to go to college to prepare for graduate school (delta-p = 1.30%) had significantly higher probabilities of enrolling through early programs compared to their peers who received less support from their parents or who did not feel drawn to college to prepare for graduate school. We found a significant and positive association between students' academic self-confidence and enrolling through early admissions (delta-p = 0.43%); however, this effect appears to be marginal compared to other predictors in the model. Likewise, we identified a significant yet marginal association between students' commitment to academic and professional success and early admissions enrollment. Finally, the results indicate that, for many students, knowing their intended major prior to starting college significantly improved their chances of enrolling via early admissions. Students who planned to major in professional fields (delta-p = 3.98%), social science (delta-p = 2.40%) or in the science, technology, engineering, and math fields (delta-p = 2.18%) were significantly more likely to enroll through early admissions compared to their classmates who were unsure of their major at the start of college.

Among high school variables, the strongest association was between a school's counselor-student ratio and early admissions. For every 1% increase in a high school's counselor-student ratio (in other words, adding one counselor for every 100 students in a school), students became 1.30% more likely to take advantage of early action or early decision programs. Also, each additional AP course offered by a high school increased the probability of enrolling through an early action or early decision program by 0.86%. In other words, students at an average high school (in this case, a high school offering approximately nine AP courses) had a 7.74% higher probability of enrolling via early admissions compared to their peers at high schools without any AP courses. Students who attended a private, Catholic high school had a 2.30% lower probability of enrolling through early admissions compared to their counterparts in public high schools.

Considering college-level variables, we found a significant and positive association between institutional selectivity and early admissions enrollment. A 100-point increase in institutional selectivity at the college where the student enrolled, measured by the average SAT scores of entering students, corresponded to a 3.98% increase in students' probability of enrolling through early admissions. Thus, students at the most selective institution in this sample (SAT composite average = 1,510) were 29.25% more likely to take part in early action or early decision programs than their peers in the least-selective institution in our sample (SAT composite average = 775).

Results in Table 2 suggest that, as average institutional financial aid per FTE student increased, students' likelihood of taking advantage of early action or early decision also increased. For every $1,000 increase in financial aid per FTE student, the probability of an individual enrolling through an early program increased by 0.65%. Additionally, students enrolling in public colleges and universities were 6.77% less likely to enroll via early admissions programs than their peers who attended private institutions.

Looking at the model statistics, we find that the college-level variables explained approximately 30.19% of the variance across colleges in students' average probability of applying early. Additionally, high school variables explained 83.56% of the variance across high schools in students' average likelihood of enrolling through an early program. Overall, our level-2 model explained approximately 33.23% of the variance occurring across colleges and high schools. Because of the heteroscedasticity, or non-normal distribution, of the variance at level-1, we are unable to provide an accurate estimation of the variance or explained variance occurring at the student level.

DISCUSSION

By utilizing a unique database combining high school institutional characteristics, student attitudes and behaviors, and college characteristics, we have an unprecedented opportunity to better understand the phenomena of early admissions in college enrollment. Earlier we suggested that the early admissions process is influenced by cultural capital in three ways. First, on an individual level, students from higher socioeconomic backgrounds have parents who can purchase resources such as private college counselors who may alert them to the benefits of applying early. They may receive parental encouragement to apply to college, reflecting expectations and norms that are shaped by social class. Second, as sites that foster cultural capital, well-resourced high schools transmit college-going knowledge such as the advantages of applying early through high school counselors or academic settings like AP courses. Third, applying early to higher education institutions is where college-going knowledge and greater financial resources (for early decision applicants, the ability to apply without needing to compare financial aid packages) intersect, paying off through a very tangible advantage in the college admissions process: akin to a 100-point score increase on the SAT (Avery et al., 2004). These three arenas are mutually reinforcing in that an individual's socioeconomic status generally influences his or her likelihood of attending a well-resourced high school and in turn, applying to college.

We found some evidence supporting the processes that we outlined in the conceptual framework. Our most pertinent finding is the relationship between private college counseling and enrolling through an early deadline. Students who received advice from a private college counselor were 14% more likely to enroll via early admissions compared to their peers who did not enroll through early admissions. While previous research has posited that students from wealthier families are more likely to apply early and thus enroll through early admissions, we suggest that wealth likely matters in part because students from more affluent backgrounds have the resources to purchase services like private college counseling. Still, even after controlling for factors related to socioeconomic status, such as parental education, family income, and students' concerns about financing their college education, we continue to see a strong, positive association between receipt of private college counseling and enrollment through early admissions. McDonough et al. (1997) argue that private college counseling is a part of an upper middle-class students' habitus, the set of norms and expectations that is shaped by social class. As a form of cultural capital, private college counselors can help "transform aspirations into more valued educational credentials" (McDonough et al., 1997, p. 301). In this case, private college counselors can help their clients gain acceptance from selective institutions through strategies such as applying early.

Racial/ethnic status was a significant predictor of early admissions enrollment, with Black, Latino/a, and Asian American students less likely to enroll through an early deadline than White students. Although previous work has identified a relationship between race/ethnicity and cultural capital (Roscigno & Ainsworth-Darnell, 1999; Wells, 2009), others suggest that class is a stronger mediator of cultural capital than race (Lareau, 2003). Although we controlled for race because of its possible relationship with cultural capital, our analysis does not explain *how* race is related to cultural capital. Still, race was a significant predictor of applying early, confirming previous work that asserted that students of color are less likely to utilize the strategy of applying early (Journal of Blacks in Higher Education, 1999). However, unlike previous studies of applying early, our comprehensive dataset included both high school and individual-level variables, allowing us to examine how the relationship between race and enrolling through early admissions is still significant even when high school resources and income are taken into account.

Two variables that we included as proxies for cultural capital, parental encouragement for college and students' desire to enroll in a college to prepare for graduate school, were significant positive predictors, although effects were more modest than those found for private college counseling and race. While parental encouragement is naturally found in both lower and higher income families, higher income families and families with parents who went to college are more likely to be able to accompany such encouragement with material resources or college-going knowledge that can aid the college search. The relationship between a student's desire to enroll in college to prepare for graduate school and enrolling through early admissions also points to possible higher levels of cultural capital. Students who are already thinking ahead to graduate school may have acquired college-going knowledge on how they can navigate the selective college admissions process in a way that strategically positions them to meet their graduate education goals. In our study, while parental education and income had modest, significantly positive effects on enrolling through early admissions, the effect of these variables are likely mediated through forms of cultural capital that advantage students in the college applications process: the resources that wealthier parents can buy for their children such as private college counseling and parental encouragement to apply to college. Related to socioeconomic status, we found that students who expressed concern about their ability to pay for college were significantly less likely to enroll through early admissions.

Income and parental education are also mediated by the types of high schools that wealthier students generally attend. Our findings display a link between cultural capital and early enrollment among our high school variables. Students attending more resource-rich high schools, as measured by the counselor-student ratio and number of AP courses available, were significantly more likely to enroll through early programs than peers attending less affluent schools. High schools with more college counselors per student provide their students with increased opportunities to obtain guidance from college counselors, and college counselors are able to focus their attention on assisting fewer students (McDonough, 2005). Similarly, high schools that offer more AP courses provide their students with several advantages in college preparation, as students have the potential to earn more college credits while enrolled in high school, can augment their grade point averages through weighted grades, and can exchange information amongst themselves about applying to college.

Resources and organizational structures are not the only way that high schools facilitate or hinder the college-going process; high schools also cultivate normative practices and expectations in this area (Falsey & Heyns, 1984; Hill, 2008; McDonough, 1997). The case of early admissions is an example of how structure and norms can interact to inform students' college-going knowledge and behavior. High schools create structures such as lower counselor-student ratios and greater offerings of AP courses, devoting resources to assist students to be academically prepared and ready to apply for college. Such resources help create a culture of college-going norms where practices such as applying early are seen as part of one's college application strategy or habitus, being reinforced through counselors and peer networks. As Hill (2008) observes, few studies have systematically examined the dynamics that exist between and within high schools in the area of college-linking strategies that reflect both structural resources and normative practices. Future research should examine how awareness about early admissions and other college admissions strategies is cultivated within high schools.

Thus, at the high school level, it appears that attending a better-resourced high school increases the probability that a student will enroll through early admissions. Once again, social privilege and the cultural capital that comes through privilege seem to be mutually reinforcing. We know that students who attend such high schools tend to come from higher socioeconomic backgrounds (Oakes et al., 2002). The privileges of attending a well-resourced high school are reinforced when such resources are channeled into outlets that produce and promote college-going knowledge. In turn, college-going knowledge attunes students to strategies, like applying early, which can advantage students in the admissions process, as much as 100 points on a student's SAT score (Avery et al., 2004).

Regarding college institutional variables, one finding in particular affirms the concept of early admissions as a form of cultural capital that perpetuates social inequalities. Students who ultimately attended more selective colleges, as measured by the mean SAT of the class, were significantly more likely to have been admitted to their schools through early admissions. It appears that applying early is a strategy being utilized in particular by students who enroll in the more selective, elite institutions. These selective and highly selective institutions are the ones that generally have early admissions policies (Clinedinst, 2008), and the students who attend selective colleges and universities tend to come from wealthier families and better-resourced high schools (Carnevale & Rose, 2003). Not only are students from more privileged backgrounds more likely to apply early, they seem to utilize this privilege to secure admission into more elite institutions, perpetuating a cycle of privilege.

RECOMMENDATIONS AND IMPLICATIONS

In the end, do our findings do more to support the comments of Fitzsimmons or Stetson? In a sense, both are true. Early admissions policies attract a pool of applicants who generally have more financial resources, and early admissions also attracts talented, high quality students. Like previous research, we found that those who enroll through early deadlines tend to be White, with higher family incomes and parents with greater levels of education. We make a unique contribution to the literature by simultaneously examining three types of context: the student, the high school, and the higher education institution. After controlling for all three contexts, we

identified that early admissions enrollment is linked to resources to which individuals with greater financial means tend to have access: private college counseling, high schools with low college counselor-to-student ratios, and academically rigorous curricula.

Given the underrepresentation of low-income students at selective colleges and universities and the many barriers that these students generally face to accessing higher education (Carnevale & Rose, 2003), we find it troubling that many universities employ a policy that tends to work as another sorting mechanism in a higher education system that is already stratified by race and class. In schools with need-blind admissions where ability to pay is not supposed to affect admissions decisions, early admissions policies, and in particular early decisions programs, result in applicants self-sorting themselves into admissions deadlines often varying by their ability to pay (Kim, 2007). In essence, early decision in particular works as a sort of class-based affirmative action that gives wealthier applicants a "plus" factor: a higher likelihood of being admitted than if they applied under the regular decision deadline. As in the case of race-based affirmative action, we do not suggest that any of the accepted applicants are unqualified to attend these institutions. We also recognize that admissions officers use a myriad of factors in making decisions beyond GPAs and standardized test scores (Killgore, 2009). Like giving preferences to legacy applicants, early admission policies show how standards of merit are flexible and defined in the context of institutional priorities. One rationale for having higher acceptance rates for early applicants with less financial need is that colleges and universities can then allocate greater financial aid resources to students from historically disenfranchised populations who apply via regular admissions deadlines (Kim, in press), although this claim needs to be examined empirically in future studies. Still, as our reference in the beginning of the paper to Fitzsimmons from Harvard suggested, early admissions policies can also discourage and confuse low-income and first-generation college students. Early admissions policies raise other equity concerns. Kim (2010) found that that early decision "is strictly welfare-improving for lower-ability full-pay students and higher-ability financial aid students, but strictly welfare-reducing for lower-ability financial aid students" (p. 2). Kim's findings suggest a scenario where a lower income White student with lower grades and standardized test scores could be rejected while a higher income White student with similar credentials would be admitted. Once again, we recognize that selective admissions counselors take many other factors and contexts into account in making admissions decisions, but we are uncomfortable when the tipping factor in some cases seems to be the ability to pay full tuition.

Ending or reforming early admissions policies will have little effect on making the overall higher education system more equitable without greater change in the K-12 educational system, especially at the high school level. In her study of college-linking strategies used by high schools, Hill (2008) identified how schools that she labeled "brokering schools" were characterized by dedicating a high amount of resources to facilitate college attendance, engaging parents in the college-going process, and acting as a broker of resources to families and students. Such schools see themselves as playing an active role in getting students to college, rather than simply providing students with information on the college-going process that students can choose to take or ignore. Other intervention strategies include college outreach programs and broadening access to rigorous high school curricula.

That said, ending early admissions, and most importantly, early decision, can still do something

to help level the playing field by removing preferential treatment of candidates who apply early: a system that in essence rewards students for their (or their parents') ability to pay for college. If institutions are intent on preserving early decision programs due to enrollment management concerns, Kim (2010) proposes a provocative alternative: "All this implies the paradoxical result: the only way to achieve 'true' need-blind admissions (when there is also early decision) is, in fact, to be non-need-blind, and give explicit preference to financial aid students" (p. 3). Avery et al. (2004) point out that, even if early admissions ended, certain students would still encounter advantages in the admissions process, be it through ways that universities identify students with high interest or communication with college counselors at elite high schools. They identified other possible recommendations to reform admissions policies such as a "Gold-Star-Only" system where applicants would rank their top preferences in order to indicate interest and commitment.

At a minimum, institutions need to look inward and ask serious questions about the patterns of who applies and is accepted early, and the implications of offering advantages to students who generally already are advantaged in the admissions process. Studies could be conducted on how students are reacting to early admissions policies, as well as what kind of admissions policies would encourage more talented students from all backgrounds and social classes to apply to college. There also needs to be more systematic research conducted on trends of applicants, both those accepted and those attending, for institutions that ended or altered early admissions policies in order to assess the impact of the policy on applicant and enrollment trends. Clearly, there are many changes that need to be made, but we recommend that institutions begin by seriously examining the equity of the policies that they already have in place.

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Note

1. For copies of these instruments, see Maucieri, Gernand, & Patelis, 2002 and UCLA Higher Education Research Institute, n.d.

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