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Estimating the Responsiveness of College Applications to the Likelihood of Acceptance and Financial Assistance: Evidence from Texas

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Abstract

This paper investigates the impact of Texas's Top Ten Percent Rule—which grants automatic to any public college in Texas for Texas high school graduates who graduate in the top decile—and subsequent targeted recruitment programs initiated by Texas's flagship universities. Using data on SAT test takers in Texas from 1996–2004, we find that the Top Ten Percent rule affects the set of colleges that students consider, and the targeted recruitment programs are able to attract the attention of students from poor high schools that were not traditional sources of students for the flagships in Texas.

JEL Codes: I20, I23, I28
Keywords: College Choice,Top Ten Percent Rule, Targeted Recruitment

1 Introduction

The end of affirmative action in Texas—following *Hopwood v. Texas* decision—led to precipitous drops in minority enrollment at the University of Texas at Austin and Texas A&M University-College Station. Kain et al. (2005) report that in the two years following the *Hopwood v. Texas* decision the mean number of black and Hispanic high school graduates from Texas enrolling as freshmen at the University of Texas at Austin[1] and Texas A&M-College Station[2] declined by twenty-eight percent and fourteen percent, respectively. To reverse the decline in minority enrollment at Texas's flagship public institutions, the Texas legislature passed *House Bill 588* or the Top Ten Percent Rule (TTPR) which was signed into law on May 20, 1997 by then governor George W. Bush. The Top Ten Percent Rule grants automatic admission to any public college or university in Texas for Texas high school graduates who both finish in the top decile of their graduating cohort and submit a completed application for admission to a qualifying postsecondary institution within two years of graduating.[3]

The Top Ten Percent Rule alone was not sufficient to restore minority enrollment at Texas's flagship institutions to the levels obtained prior to the *Hopwood v. Texas* decision. The enrollment of blacks and Hispanics as first-time freshman at selective public institutions in Texas as a percentage of black and Hispanic enrollment in all Texas public colleges and universities for the years 1998–2000 remained below the level obtained in 1996, the year prior to the *Hopwood v. Texas* decision (see Table 3 of Kain et al., 2005). Long (2007) presents evidence that the TTPR did little to undo the effects of *Hopwood v Texas* on the under-representation of blacks, Hispanics, and Native Americans at the University of Texas at Austin and Texas A&M-College Station.

In an attempt to attract a diverse body of students to the college without individually identifying the students by race or ethnicity, the University of Texas at Austin identified 70 Texas high schools that were both poor and, historically, had not had many students matriculate at the University of Texas at Austin. These schools, on average, consisted of student bodies that were more than ninety percent minority (Tienda and Niu, 2006) and only ten percent of students had college educated parents (Niu et al., 2006). The most deserving graduates at these high schools—which includes students who were not in the top decile—were offered scholarships, smaller classes, and tutoring if they were admitted to the University of Texas at Austin. This program, which was introduced to selected Texas high schools in 1999, 2000, and 2001, is known as the Longhorn Opportunity Scholarship (LOS) Program.[4]

[1] We use the University of Texas at Austin and UT Austin interchangeably.

[2] We use Texas A&M-College Station and Texas A&M interchangeably.

[3] *House Bill 588* also allows each public college or university in Texas to annually determine if it will offer automatic admission to graduates in the top quartile and provides each institution with a list of eighteen factors that can be used in making admissions decisions if a student does not qualify for automatic admissions

[4] The Longhorn Opportunity Scholarship information was obtained from Dr. Lawrence W. Burt, former associate vice president and director of student financial services at the University of Texas at Austin.

Texas A&M-College Station followed suit in 2000 with its Century Scholars (CS) program which offers scholarships to the graduates of 40 high schools located in Houston, Dallas, and San Antonio. The high schools were selected based on the high poverty rates of their students and the low number of applications that the students from these schools sent to Texas A&M University-College Station.[5]

In addition to the benefits discussed above, the universities also send students back to their respective high schools to share information about their college experiences. This is true outreach; the flagship institutions in Texas are attempting to make students from disadvantaged high schools feel welcome and, in the process, change the very perceptions that deterred disadvantaged students from considering these schools a viable postsecondary option.

The Top Ten Percent rule and the implementation of targeted recruitment and financial aid programs by two of Texas's selective universities offer the opportunity to examine two questions:

1. What is the impact of both the increased emphasis and transparent use of class rank on the score-report sending behavior of Texas's high School Graduates?

2. How does targeted financial aid and recruitment affect the application behavior of potential recipients?

Previous research by Card and Krueger (2005) finds that getting rid of Affirmative Action in California and Texas had no effect on the set of schools that highly qualified minorities designated to receive score reports, which we also use as our proxy for applications. Long (2004), using a random sample of ten percent of all SAT I takers from 1996–2000, finds that the gap between minorities and non-minorities in the number of score reports sent to in-state public institutions widened. Dickson (2006) finds a significant decrease in the percentage of graduates taking admissions examinations after the implementation of the Top Ten Percent Rule. She also finds that high schools that were selected as Longhorn Opportunity Scholarship schools experienced an increase in the percentage of graduates who attempted admissions examinations.

Our paper builds on the existing literature in several ways. First, we are interested in evaluating the effects of the transition from an admissions regime where class rank is merely one factor in the admissions to a regime where class rank is the primary factor in admissions for a subset of Texas high school graduates, regardless of high school quality and standardized test scores. In contrast to Card and Krueger (2005), we do not limit our sample to highly qualified test-takers as measured by SAT performance or grade point average. We also consider students who previously might not have been admitted to the top

[5]The Century Scholar program information was obtained from correspondence with Myra Gonzalez, Associate Director of the Office of Honors Programs and Academic Scholarships at Texas A&M - College Station.

schools in Texas under affirmative action but who would likely be admitted under the Top Ten Percent Rule—for example, students who graduate in the top decile but have low standardized test scores.[6]

Second, our data allows us to investigate in detail the set of colleges students selected to receive score reports. Thus, whereas Long (2004) is able to only observe classifications of the colleges that are designated to receive score reports, we observe the student's full choice set.

Third, only limited evidence has been gathered in the evaluation of targeted recruitment programs. The analysis in Dickson (2006) is conducted at the high-school level and focuses on the extensive margin of test taking, the percent of graduates that attempt an admissions examination. In addition, Dickson (2006) focuses only on the LOS program; our data allow us to examine the impact of both the LOS program and the CS program on the actual score report sending behavior of individual students, conditioned on a student having attempted the SAT I examination. This provides a more direct measure of the effectiveness of such programs. If the programs work, then the probability that students from either an LOS school or a CS school sent score reports to the University of Texas at Austin and Texas A&M-College Station, respectively, will increase relative to the probabilities for similar students from non-Longhorn high schools and non-Century Scholar schools.

Since the Longhorn Opportunity Scholarship schools are so different from other high schools in Texas, naively using the other high schools in Texas as a comparison group could lead to biased estimates of the impact of the Longhorn Opportunity Scholarship and Century Scholar programs. We take a number of steps to reduce the bias caused by the non-random selection of treated high schools in estimating the impact of the targeted recruitment and financial aid programs.

The remainder of the paper is organized as follows. Section Two discusses the data. Section Three describes the empirical methodology. Section Four discusses the results. Section Five concludes.

2 Data

The data we use for this paper was obtained from two sources. First, we downloaded Academic Excellence Indicator System (AEIS) data from the Texas Educational Agency (TEA). This is high school level data, available publicly on the internet, which provides a wide range of information on the performance of students in each public school and public school district in Texas for each academic year. These data include Texas Assessment of Academic Skills (TAAS) performance, attendance rates, dropout rates, completion rates, the ethnic composition of the student body, the mean SAT and ACT scores of the high school,

[6]For example, Card and Krueger (2005) classify students who have a SAT score greater than 1150 as being highly qualified. In our data set, we identify $74,472$ students who both self-identify as being in the top ten percent of their class and have SAT scores less than 1150.

and the percentage of students who attempt either the SAT or ACT examinations.[7]

Second, we obtained detailed student level data from the College Board. This data set contains the SAT verbal and math scores of every high school senior in the state of Texas who took the SAT exam, from the cohorts graduating in 1996 until 2004. The data set also includes demographic information on the test takers, such as age, race, gender, the number of score reports sent, and the identity of the colleges designated to receive the score report.[8]

The data set includes a unique high school identifier which we used to merge the two data sets. In addition, we have any information available via the SAT Student Descriptive Questionnaire (SDQ). The SDQ is a section of the SAT which contains information on family background, high school courses and performance, college aspirations, and, most importantly for this study, a student's class rank. It should be stressed that the entire SDQ, as well as any particular question, is voluntary. Moreover, the responses are all self-reported.

We use the information on the score report sending behavior of students in Texas to examine the effects of the Top Ten Percent Rule and the targeted recruitment programs on college choice. Using the SAT as the source of information raises two questions. First, to what extent do colleges and universities require standardized test scores? Second, how popular is the SAT relative to the ACT, another standardized exam that is often used in the admissions decision? In addressing the first question, we note that the use of standardized tests in the admissions decision is quite popular, only slightly more than thirty-two percent of bachelor degree granting institutions—779 out of 2425—in the United states deemphasize or make no use of the SAT or ACT in making admissions decisions.[9]

Thomas (2004), using data from the Texas Schools Microdata Panel, shows that the SAT is the prevalent examination for students in Texas who decide to take a college entrance exam. Thomas (2004) plots the percentages of Texas students taking only the SAT, only the ACT, and both examinations for the years 1991–1999.[10] In the year 1999, for example, fifty percent of Texas students took only the SAT, twenty percent of Texas students took only the ACT, and thirty percent of Texas students took both the SAT and the ACT. During the years 1991–1999 the percentage of students attempting only the ACT declined by five percentage points while the percentage of students who chose to take both examinations increased from twenty-six percent to thirty percent. Given that the majority of four year institutions require standardized examinations and the prevalence of the SAT in Texas, we are confident that examining the choice set of SAT test takers accurately represents the choice set of Texas students.

[7] The URL is http://www.tea.state.tx.us/

[8] We only have racial information for students from the 1999 cohort onwards

[9] Authors' calculation using information from both the National Center for Fair and Open Testing and the National Center for Education Statistics

[10] See Thomas (2004) Figure 1.

[Table 1 about here]

Table 1 contains descriptive statistics. We restrict our sample to include students for whom we are able to match with their high school level data. This primarily excludes students in private high schools. In total, we have 916,348 remaining unique student observations across all years combined, with a mean number of test takers of about 102,000 per year.[11] Of these, approximately 11 percent are Black, 17 percent are Hispanic and 46 percent are White, with a sizable proportion for whom we do not have racial information. Roughly 54.5 percent of takers are female, and the average performance of these Texas graduates is 458 points and 466 points on the verbal and mathematical component of the SAT, respectively.

3 Empirical Analysis

3.1 Score Report Sending

We use the temporal variation in the importance of rank with respect to the probability of admissions to identify the impact of the change in the admissions regime on the score report sending behavior of Texas's public high school graduates. We estimate linear probability models[12] of the following form:

$$Y_{ist} = \alpha_s + \alpha_t + \alpha_{1996} + \beta_1' X_{st} + \beta_2' X_{ist} + \sum \Gamma^j R_{ist}^j + \sum \delta_P^j (R_{ist}^j \times Post) + \varepsilon_{ist} \quad (1)$$

Y_{ist}, our outcome, is an indicator variable that assumes a value of one in the event that student i in high school s in year t engages in a particular behavior with respect to score report sending. Examples of the outcomes that Y_{ist} represent are whether or not a student sent score reports to: UT Austin, Texas A&M, a non-selective public college in Texas, an elite national university, both UT Austin and Texas A&M, an out-of-state college, and whether the student sends more than four score reports in total.[13]

We include both high-school fixed effects, α_s, a linear time trend, α_t and a dummy variable, α_{1996}, that assumes a value of one for the academic year 1996.

We only have two years of data before the Top Ten Percent Rule goes into effect. Affirmative Action policies are in effect for the academic year 1996. This makes the comparison year 1997, when neither Affirmative Action nor the TTPR was in effect. Including a dummy variable for the one year of Affirmative Action is probably unable to fully account for the impact of an admissions regime that allows the explicit use of race in the admissions process. The most direct solution would be to include race in our models. However, we lack information

[11] The original sample size was 1,068,071 individuals.

[12] We use linear probability models for two reasons: 1) The reduced computational burden of including fixed effects in a linear model. 2) The ease of interpreting the coefficients.

[13] The first four score reports are free. A student must pay a fee for each additional score report that he or she chooses to send.

on the test-takers' racial/ethnic grouping for the years 1996–1998, so we cannot directly address this issue. It is important to consider how omitting race affects what we are able to estimate. We view the policy experiment as being a change from a regime where class rank is one factor among many factors to a regime where the use of class rank in the admissions process is clearly delineated and understood by all interested parties. A more complete analysis would examine the effects of the interaction of race, self-reported class rank, and the increased emphasis on rank in the admissions process on choice; that is, we are unable to estimate racial/ethnic specific effects of the policy. We do, however, estimate the impact of the change in the importance of rank in the admissions process, on average, across all the race groups, an important and policy relevant quantity.

We include year specific high school level variables, X_{st} which include, for example, the student-to-teacher ratio, the percentage of the high school that is black, and the percentage of the high school that is Hispanic. X_{ist} are individual level characteristics; we include the individual's verbal SAT score and math SAT score. Tienda and Niu (2006) and Niu et al. (2006) show that high school attributes affect college choice. Students who score well on the SAT are likely to select a different set of colleges relative to students who do not score well. We include the variables in X_{st} and X_{ist} to account for their influence on college choice and to reduce the potential bias in estimating the effects of the increased importance of class rank on college choice.

The R^j_{ist} are a series of rank dummies. The excluded category consists of students who are in the third quintile. The rank dummies assume a value of one if student i in school s in year t identifies as being in one of the following categories: the first decile, the second decile, the second quintile, the third quintile, the fourth quintile, the fifth quintile, and non-reported rank. We cluster at the high school level both to produce standard errors that are robust to using variables that are at a higher level of aggregation than the micro-units (Moulton, 1990), as well as to allow for arbitrary temporal correlation of the ε_{ist}'s within a cluster (Bertrand et al., 2004).

The coefficients of interest are δ^j_P, the coefficients associated with the interaction terms, $R^j_{ist} \times Post$, where $Post$ is a dummy variable that assumes a value of one for the Top Ten Percent Rule Regime, the years 1998–2004. To flesh out the interpretation of the δ^j_P consider the following example. Let Y_{ist} represent the event that a student sends a score report to a non-selective public college or university in Texas and consider the coefficient associated with the interaction term between the indicator for the top decile and the indicator dummy for the Top Ten Percent Rule admissions regime. This coefficient represents the difference in the probability that a student in the top decile sends a score report to a non-selective institution relative to the probability that she would have sent a score report to a non-selective public university in Texas prior to the advent of the Top Ten Percent Rule. Similar interpretations apply to the coefficient estimates with respect to both different rank categorizations and different outcomes.

We include a full set of rank and post interactions. This specification allows for us to examine the impact of the Top Ten Percent rule across the entire distribution of rank. However, it precludes us from including a full set of year dummies as this would induce perfect collinearity with the set of year dummies from 1998 onwards This means that the estimates of the Top Ten Percent Rule's effects on the rank classifications are somewhat conflated with the overall period effects, but this is a reasonable tradeoff as we want to look at the changes over the entire distribution of rank.

3.2 Targeted Recruitment and Financial Aid

3.2.1 Pre-Post Analysis

We use two methods to analyze the effects of the Longhorn Opportunity Scholarship and Century Scholars program. The first method is a simple pre-post comparison where we limit the sample to Texas high schools that eventually are targeted by either the Longhorn Opportunity Scholarship or the Century Scholars program. This method uses the behavior of test-takers in Texas high schools that eventually receive the targeted recruitment programs in the years before the high schools received the programs to provide the counterfactual.

We estimate models of the following form:

$$\begin{aligned} Y_{ist} &= \alpha_s + \alpha_t + \alpha_{1996} + \beta_1' X_{st} + \beta_2' X_{ist} + \sum \Gamma^j R_{ist}^j + \sum \delta_P^j (R_{ist}^j \times Post) \\ &\quad + \sum \delta_T^j (D_T \times R_{ist}^j) + \varepsilon_{ist} \end{aligned} \tag{2}$$

Equation (2) is the same specification as equation (1) with the addition of the terms $D_T \times R_{ist}^j$. We limit the outcomes, Y_{ist}, to the University of Texas at Austin and Texas A&M as these are the universities that instituted targeted recruitment programs. The targeted recruitment programs were instituted after the Top Ten Percent Rule was passed; therefore, we include the interaction terms, $(R_{ist}^j \times Post)$ to control for the effects of the Top Ten Percent Rule.

D_T is an indicator variable that assumes a value of one the year that a public high school in Texas receives either the Longhorn Opportunity Scholarship or the Century Scholars Program, respectively.[14] R_{ist}^j are a series of rank dummies. $D_T \times R_{ist}^j$ are interaction terms. The coefficients associated with the interaction terms, δ_T^j, represent the effects of the targeted recruitment programs on the likelihood of a student with self-reported class rank R_{ist}^j submitting to the University of Texas at Austin when we analyze the Longhorn Opportunity Scholarship or Texas A&M when we consider the Century Scholars Program. The standard errors are clustered at the high school level.

[14] Some high schools that were originally designated to receive the Century Scholars Program lost their status. We only include schools—and thus students in the schools—who upon being designated for targeted recruitment maintained that status over the years spanned by our data.

3.2.2 Matching and Regression Adjustment

A simple pre-post design can not account for contemporaneous factors that affect the outcomes regardless of whether students in the high schools were treated or untreated. The selection of an appropriate control group allows us to difference out these factors. We use a combination of propensity score matching and regression adjustment to deal with these issues.

We first estimate the conditional probabilities that public high schools in Texas are selected to receive either the Longhorn Opportunity Scholarship or the Century Scholar Program, $\mathcal{P}(Longhorn|X)$ or $\mathcal{P}(Century|X)$. That is, we estimate the propensity score of treatment by either of the recruitment programs (Rosenbaum and Rubin, 1983). In estimating the propensity score, we use a probit specification that includes as regressors high school level characteristics from the year 1996. For example in estimating $\mathcal{P}(Longhorn|X)$, we include the percentage of the high school's students sending to the University of Texas at Austin, the percentage of the high school's students on free or reduced price meals, the percentage of the high school that is white, the percentage of the high school that is black, the student-to-teacher ratio, and the number of twelfth graders. All variables are entered linearly. The specification for the estimate of $\mathcal{P}(Century|X)$ is the same as the specification for $\mathcal{P}(Longhorn|X)$ except that we include measures of the percentage of the high school's test takers that send score reports to Texas A&M-College Station.

We make a conditional independence assumption; that is, we assume that assignment to treatment is random after conditioning on the covariates. This assumption is reasonable because in our propensity score specification we include one of the measures used to determine assignment, the percentage of students sending to the relevant recruiting university and proxy for the socioeconomic status of the student body by using the percentage of a high school's students that receive free or reduced price meals.

The estimated propensity score is employed in a kernel matching procedure to determine an appropriate set of counterfactual high schools.[15] We impose a common support condition and estimate models of the same form as equation (2) where students in the "treated" high schools are given a weight of one and students in the "control" high schools are given the kernel weight assigned to the high school by the matching procedure. We again cluster the standard errors at the high school level. With a defensible set of counterfactuals, we are able to reduce potential bias in estimating the impact of the Longhorn Opportunity Scholarship program and the Century Scholar program on students in the schools that received the programs.

In an appendix table, we include the results from estimating the propensity scores. For the LOS program, the percentage of students sending score reports to the University of Texas at Austin has a negative and significant effect on the likelihood of a high school receiving the program. This is to be expected, as

[15] We use an epanechnikov kernel with a bandwidth of .06. In results not shown, a number of alternative bandwidths were used. The results obtained from using the alternative bandwidths are qualitatively similar to the results presented in this manuscript.

schools were selected that had not sent many students to the University of Texas at Austin. The percentage of the high school that is black has a positive and significant effect on the probability of a school being selected. The percentage of the high school that is white enters the regression with a negative sign and is statistically significant. The student to teacher ratio also enters the regression positively and is significant. The signs of these coefficients are reasonable as the majority of schools selected for the program are urban schools with student bodies that are minority laden and have classes with high student to teacher ratios. The same pattern emerges for the estimated probability of treatment for the CS program. The percentage of a high school's students that send score reports to Texas A&M enters the regression with the expected sign but is not statistically significant. The high school demographics and the student to teacher ratio have the same sign as the analogous coefficients in the estimated propensity score for the LOS program. The pseudo-R^2 for the LOS and CS models are 0.595 and 0.537, respectively. Corresponding χ^2 statistics strongly indicate that the estimated propensity score models have predictive power.

[Figures 1 and 2 about here]
[Figures 3 and 4 about here]

Figures 1 and 3 shows the entire distribution of estimated propensity scores among the treated and untreated schools for the LOS and CS programs that are on the common support.[16] The striking feature of the graphs is the large mass of untreated schools with propensity scores that are less than .05. However, given that the majority of high schools had very low probabilities of receiving the targeted recruitment programs, it is reassuring to see this reflected in the distribution of propensity scores.

Figures 2 and 4 show the distribution of estimated propensity scores for the LOS and CS programs with the set of schools on the common support with propensity scores that are greater than .05. With these graphs, it is easier to see that there are high schools that didn't receive the treatment that are comparable to the schools that did receive the targeted recruitment programs with respect to the value of the propensity score.

For the LOS program, 55 of 65 treated schools are not excluded by the common support condition. For the CS program, 23 of 38 treated schools are not excluded by the common support condition. The range of propensity scores that define the common support are from 'almost zero'[17] to 0.920 for the LOS program and 0.784 for the CS program.

[Tables 2a and 2b about here]

[16] The common support condition is operationalized by excluding treated high schools—and thus students in those high schools—with propensity scores that exceed the maximum score obtained by the set of untreated high schools or are less than the minimum score obtained by the set of untreated high schools.

[17] i.e. 6.59×10^{-13} for LOS and 1.46×10^{-7} for CS.

In Tables 2a and 2b, we present the effect that the common support condition and kernel weighting has on the mean value of various covariates measured in 1996, prior to the introduction of LOS and CS. The full sample consists of the high schools with the necessary covariates to estimate the propensity score. For most covariates the imposition of the common support and weighting is to decrease the absolute value of the difference between the treated and untreated schools, especially for the variables that correspond to the demographics of the high schools. For LOS, the difference in the percent of test-takers who send a score report to UT Austin decreases from a significant 7 percentage points to a statistically insignificant -1 percentage points . For CS, the difference in the percent of test-takers who send a score report to Texas A&M decreases from a significant 7 percentage points to a statistically insignificant 1 percentage point. Some significant differences do remain, particularly with respect to the mean SAT verbal and SAT mathematics scores, which also change sign from positive to negative. The matching process results in increased weight being applied to schools with weaker students on average among the untreated schools. Still, the imposition of the common support and kernel weighting result in a set of control schools that is more balanced.

4 Results and Discussion

4.1 Summary Statistics

[Table 3 about here]

Table 3 presents the mean values of various score sending outcomes. We see that the mean proportion of students who send more than four score reports remains fairly stable. The proportion sending score reports to UT Austin decreased slightly, while the corresponding statistic for Texas A&M dropped dramatically from 0.31 to 0.23. This is only slightly reflected in the 'Flagship' column, which represents the proportion of students who send to both UT Austin as well as Texas A&M. There is a slight upward trend in the proportion sending to non-selective public Texas colleges and universities, and a downward trend in the proportion sending to colleges located outside of Texas. The proportion sending to elite national universities remained small and fairly stable.

4.2 Top Ten Percent Rule

[Table 4 about here]

Table 4 presents individual level regression results for score sending behavior. The mean temporal change in behavior for students in a particular rank is captured by the coefficients on the indicator variable Post interacted with the relevant class rank variable. The dependent variable in column two is an indicator variable for whether the student sent more than four SAT score reports. In the post period, students in the 1st decile were 5.7 percentage points less likely to send out more than four scores, and the difference is significant at the 1 percent level. Test-takers in the second decile and second quintile were also significantly less likely to send out more than four reports, by 1.9 and 1.5 percentage points respectively. Being in the top decile means that the uncertainty of admission is reduced, hence the reduction in the probability of sending out more than four score reports. It is resonable that students whose self-reported class rank in the second decile and second quintile decreasing the number of score reports that they send. If students in the second decile and second quintile under the TTPR perceive that the set of colleges to which they could gain admission has decreased relative to similarly ranked students prior to the TTPR, then a reasonable response is to decrease the set of schools in the college choice set—for example, "reach" schools or the schools on the margin of the students' expectation of gaining admission could be dropped. This explanation is consistent with the decline in the likelihood of students who report being ranked in the second quintile sending score reports to the University of Texas at Austin.

In examining column three, students in the top decile increase their probability of applying to UT Austin by about 3 percentage points, and the difference is significant at the one percent level. In contrast, the probability that students in the second quintile send a score to UT Austin decreases significantly by 1.6 percentage points. Assuming that UT Austin is the most prestigious public college in Texas, this suggests that the effect of the TTPR is enhancing the degree of sorting by students depending on their class rank.

In column four, we observe that the proportion of students sending a score report to Texas A&M increases among students in the no rank designation, third quintile, fourth quintile and fifth quintile, by 1.3, 1.2, 2.9, and 2.3 percentage points, respectively. This is a interesting result. Texas A&M is one of Texas's most selective public institutions. Texas A&M and the University of Texas at Austin were the only two public universities in Texas that were ranked as highly selective by Barron's Guide to Colleges and Universities in 1998. After the change in the admissions regime, we would have expected that students in the lower rank deciles would lower their perceived chances of admissions, yet we see students in the lower rank deciles are more likely to apply to Texas A&M-College Station. This suggests that students' average perception of the probability of admissions varies across rank and across institutions in ways that aren't consistent with the theory.

Column five contains the results for the impact of the admissions regime change on the likelihood of sending to a non-selective public four-year universities in Texas.[18] We observe that students from all class ranks are less likely to send score reports to non-selective Texas institutions. This decrease is largest among students in the top decile, at 4.4 percentage points. This result is consistent with the notion that students in the top decile have a higher quality minimum with respect to college choice.

[18]There are seventeen such institutions as given by Barron's Guide to Colleges and Universities in 1998. Examples of such institutions include The University of Houston-Downtown, Texas A&M-Texarkana, and The University of Texas at San Antonio.

The results in column six provide evidence that students in the top decile are less likely to apply to elite national universities, while those outside of the top decile are more likely to do so, although the coefficient estimates are relatively small for each category of self-reported rank. Column seven contains the estimates for the outcome of sending a score report to both the University of Texas at Austin and Texas A&M-College Station. Our coefficient estimates vary by class rank. The estimates are relatively small for students in the first two deciles. In contrast, score sending to both schools decreases by 3.7 percentage points among students in the second quintile. It increases, although by smaller amounts, among students in the bottom three quintiles. This is interesting because it suggests that students in the second quintile might be choosing between the two flagships, whereas students in the lower quintiles feel the need to apply more widely if they are to be granted admission to any of the state flagships.

In the final column, we observe that students in the first decile, second decile, and students who report no rank are less likely to send a score report to an out-of-state college, by 2.3, 1.6, and 1.3 percentage points respectively. At the same time, students in the third quintile are more likely to apply to an out-of-state college, by 0.9 of a percentage point. These estimates are consistent with the notion that students in the top decile recognizing an admissions advantage and students who report being ranked in the third quintile perceiving better opportunities outside of the state. The result for students in the second decile and those reporting no rank is surprising.

In summation, we find that student application behavior changed in response to the transparent usage of class rank in the admissions process. We find that the Top Ten Percent Rule had heterogenous treatment effects, with top decile students sending fewer scores, being more likely to apply to UT-Austin and less likely to apply to an out-of-state or non-selective institution. Middle and lower ranked students, on the other hand, are more likely to apply to Texas A&M or to an out-of-state college. Indeed, some of the strange results strengthen the notion of heterogeneous response and highlight the need to think carefully about how the heavy handed use of a single characteristic can have unanticipated consequences.

4.3 Longhorn Opportunity Scholarship and Century Scholarship

[Table 5 about here]

Table 5 contains estimates of the impact of the targeted recruitment programs using both the before-after research design and the weighted difference-in-differences estimator. The top panel contains estimates for the impact of the LOS program on the likelihood of sending a score report to the University of Texas at Austin. Using the before-after method, we estimate that the LOS program had a significant and large impact on score sending to UT Austin for students in the first decile only, at 8.8 percentage points. The effects of the the LOS program on the other rank designations are small and statistically insignificant.

The next column in the top panel of Table 5 contains the difference-in-difference estimates. Relative to the estimates obtained using the before-after analysis, four differences emerge. First, the estimated treatment effects of the LOS program obtained using weighted difference-in-differences are larger in magnitude. Second, the treatment effect estimates of the LOS program for the second decile and the second quintile, and the third quintile attain both economic and statistical significance. Third, the estimated treatment effects of the LOS program for test takers in the fourth quintile, fifth quintile, and the no rank category switch signs relative to the estimates obtained from the pre-post analysis, but show no change in statistical significance.

We now estimate that the LOS increased score sending rates to UT Austin by 9.6, 3.2, 2.5, and 2.2 percentage points for students in the first decile, second decile, second quintile, and third quintile respectively. To place these results into context, we compare these coefficients to the sending rates to UT Austin in the set of LOS prior to those schools receiving the LOS programs. Among students in the first decile, second decile, second quintile, and third quintile sending rates to UT Austin were 36.9, 26.2, 19.6 and 14.1 percentage points, respectively. Interpreted in this way, the estimated percentage increase for these groups are 26.0 percent, 12.3 percent, 12.8 percent , and 15.6 percent, respectively.

The bottom panel in Table 5 contains estimates for the impact of the Century Scholars program on the likelihood of sending a score report to Texas A&M University. The results from the before-after analysis indicates that the largest effects are obtained for students who report being ranked in the top decile. The estimate indicates that students are 3.1 percentage points more likely to send a score report to Texas A&M; the estimate is not statistically significant. Estimates for the other rank designations are small and statistically insignificant.

The weighted difference-in-differences analysis of the CS program reveals some surprising results. The estimated effect for the top decile is 2.8 percentage points, but it is not statistically significant. We estimate a 2.3 percentage point increase in the probability of sending to Texas A&M for test takers who do not report rank. This is a 19.2 percent gain relative to the rate at which students in CS schools who reported no rank sent to Texas A&M prior to the high schools receiving the CS program. We estimate a 2.8 percentage point increase in probability of sending to Texas A&M for test takers who report being ranked in the third quintile, which is a 15.6 percent gain relative to the rate at which students in CS schools who reported no rank sent to Texas A&M prior to the high schools receiving the CS program.

Overall, these findings are remarkable. The impact of the LOS and CS are economically large and significant. They also have the largest impact on the best ranked students in these schools which makes sense because students who are ranked in the top decile are guaranteed admission, but we also find significant effects throughout the distribution of rank. Our findings are consistent with the hypothesis that student application decisions from under-represented high schools are subject to multiple constraints. The constraints include the likelihood of admission, funding, and post-enrollment support. Our estimates indicate that when these constraints are relaxed, students respond.

5 Conclusion

Our analysis and results highlighted important new insights. As expected, there is significant heterogeneity in the effects of the law which vary with the self-reported rank. Ignoring the heterogeneous effects of the change in the admissions regime leads to incorrect inferences about the effects of perceived changes in admissions probabilities on students' application behavior, as proxied for by score report sending. For example, test-takers who indicate that they are ranked in the second decile are less likely to apply to UT-Austin; this implies that talented but lower ranked students are less likely to apply and reduces the breadth of the pool of students that admissions officer can consider.

The targeted recruitment program implemented by UT Austin and Texas A&M was successful at attracting potential applications from students at disadvantaged schools. Test-takers who reported being ranked in the top decile responded greatest to the targeted recruitment programs. Policy makers should consider multi-faceted responses in order to avail deserving students from disadvantaged backgrounds of the opportunity to matriculate at Texas's flagship institutions.

The targeted recruitment programs demonstrate that it is possible to attract students from high schools that were not traditional sources of students for the University of Texas at Austin and Texas A&M. However, our results do not provide sufficient information to determine if these programs are suitable for other institutions. Two pieces of information are required to make this calculation: 1. The return per dollar invested in the targeted recruitment program. 2. The value to a particular university of attracting students from disadvantaged high schools. The first value can be thought of as the number of applicants per dollar invested. In terms of simple scholarships, where students receive only money and additional services, a measure of return can be obtained by dividing the change in the number of applicants by the amount of the scholarship. Applying such a metric to calculate the returns to the Longhorn Opportunity Scholarship Program and the Century Scholars Program grossly overstates the returns to the programs because the calculation does not account for the total cost of providing all the services to the recipients.[19] The second value depends on the preferences of the university with regard to the perceived benefit of having students from disadvantaged backgrounds on campus and is difficult to ascertain. However, given that the targeted recruitment programs still exist, we conclude that the University of Texas at Austin and Texas A&M regard the programs as being sufficiently beneficial.

Legislators in Texas have considered altering the Top Ten Percent Rule. (see Embry, 2007) This paper demonstrates that students respond to changes in information and incentives. This paper also demonstrates that the postsecondary institutions in Texas are able to respond effectively to legal constraints in order to craft enrollment as they see fit. At a minimum, our evidence suggests that

[19]Both scholarships award five thousand dollars per year for four years. We were unable to obtain the full cost of administering the targeted recruitment programs.

the legislators should consider the interaction of both student and institutional responses to any changes in admissions policy.

Appendix Table in the Appendix Section

6 Acknowledgements

The authors thank Charlie Brown, Sheldon Danziger, John DiNardo, David Lam, Jim Levinsohn, Justin McCrary, Cecelia Rouse, Jeff Smith, and two anonymous referees for comments and suggestions that greatly improved the quality of the manuscript. We thank both The College Board for providing the SAT data and the Texas Education Agency for the crosswalk file that enabled us to merge in the high school level variables. Vimal Ranchhod acknowledges support from the Fogarty International Center (Grant: D43-TW000654) and the National Research Foundation of South Africa. The usual disclaimer applies.

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Figures

Figure 1: Propensity Score Histograms For LOS Schools: Entire Common Support

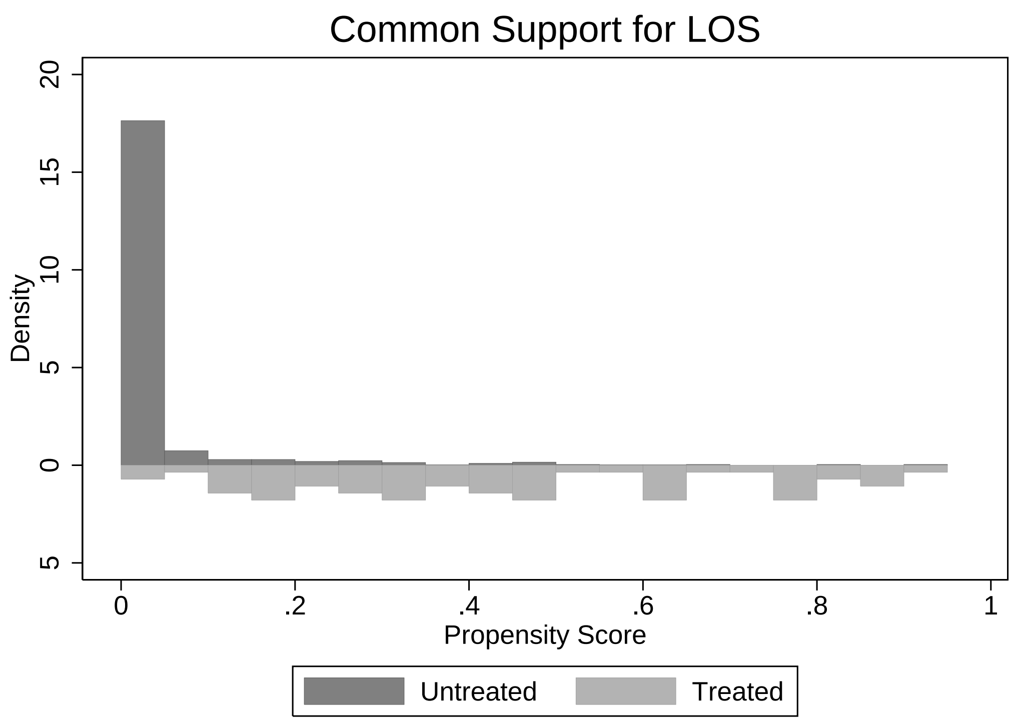

Figure 2: Propensity Score Histograms For LOS Schools: Propensity Scores Less Than .05 Removed

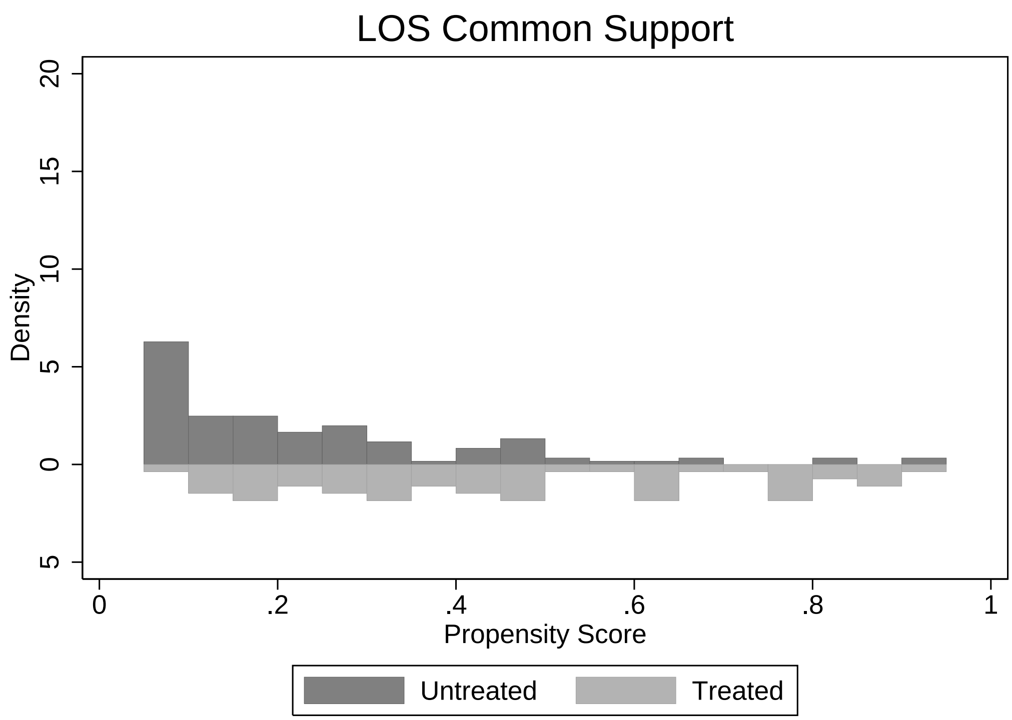

Figure 3: Propensity Score Histograms For CS Schools: Entire Common Support

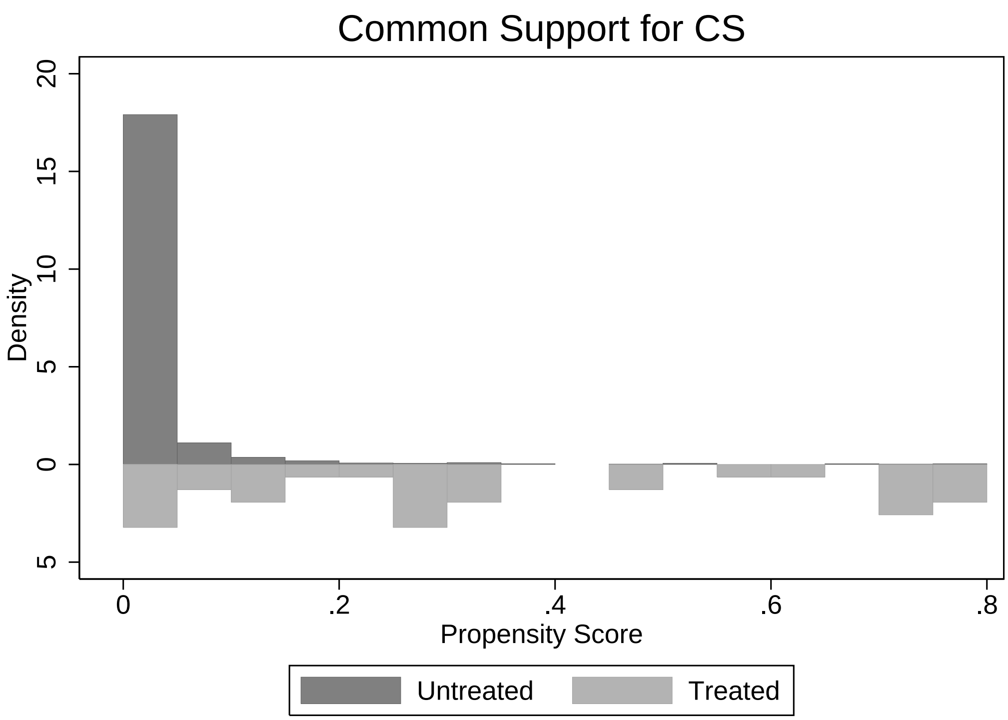

Figure 4: Propensity Score Histograms For CS Schools: Propensity Scores Less Than .05 Removed

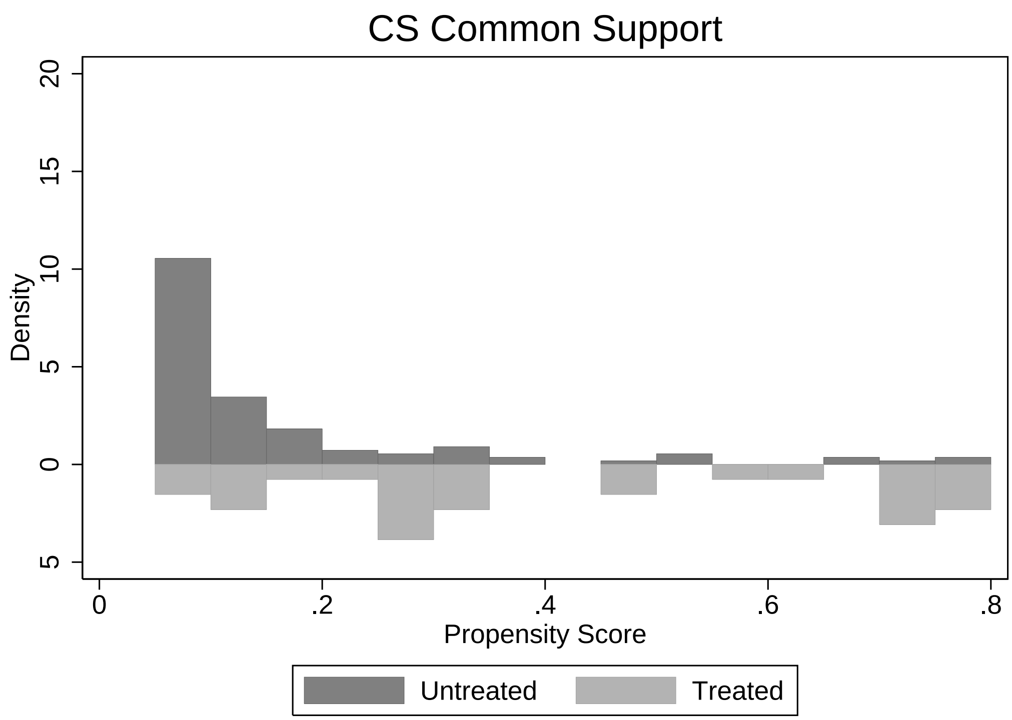

Table 1: Descriptive Statistics

Year	No. of Obs	% Black[a,b]	% Hispanic	% White[c]	% Female	Mean SAT-V	Mean SAT-M
1996	83,769	–	–	–	54.7	460	466
1997	87,750	–	–	–	54.73	459	467
1998	94,136	–	–	–	54.84	456	463
1999	98,730	11.45	16.54	51.95	54.73	453	459
2000	103,367	11.11	16.57	49.46	54.41	454	461
2001	105,015	11.22	16.73	47.87	54.57	452	459
2002	110,097	11.23	16.58	45.07	54.57	488	499
2003	115,260	10.84	16.37	40.48	54.02	452	460
2004	118,224	12.07	18.28	43.53	54.19	450	458

Notes: [a]We have no racial data for the 1996–1998 cohorts.
[b]The residual race/ethnic category is 'other'.
[c]The decrease in the percent White is primarily matched by a corresponding increase in the percent not reporting race. (Corr coeff = - 0.66)

Table 2a: Difference in Means between Non-LOS and LS schools: 1996

	Full-Sample				Common Support			
	Non-LOS	LOS	Δ	(s.e.)	Non-LOS	LOS	Δ	(s.e.)
Mean SAT Verbal 1996	446.18	360.04	86.14	(10.22)	317.33	366.74	-49.42	(24.40)
Mean SAT Math 1996	446.33	365.86	80.47	(10.35)	320.73	373.61	-52.88	(24.48)
% Male 1996	45.00	41.00	4.00	(2.00)	47.00	41.00	6.00	(4.00)
% LEP 1996	4.12	13.32	-9.20	(1.10)	15.00	15.34	-0.35	(3.46)
% Poor 1996	31.98	54.76	-22.78	(2.49)	58.84	56.58	2.26	(5.87)
% White 1996	62.79	7.06	55.73	(3.38)	8.75	8.23	0.52	(1.74)
% Black 1996	9.64	38.70	-29.05	(2.02)	21.93	28.82	-6.89	(7.03)
% Hispanic 1996	26.00	52.77	-26.77	(3.57)	68.30	61.27	7.03	(7.35)
% in Twelfth Grade 1996	18.24	16.53	1.71	(0.74)	15.49	16.85	-1.35	(0.77)
Teacher's Experience	12.34	13.82	-1.47	(0.30)	12.03	13.53	-1.49	(0.71)
Student/Teacher Ratio	13.49	16.73	-3.23	(0.38)	16.53	16.50	0.03	(0.65)
% Taking Admissions Exam	63.90	54.00	9.90	(2.20)	48.86	53.65	-4.79	(4.82)
% Sending to UT-Austin	28.00	21.00	7.00	(2.00)	22.00	23.00	-1.00	(3.00)
% Sending to Texas A&M	31.00	17.00	14.00	(2.00)	24.00	17.00	7.00	(5.00)
N	936	65			936	55		

Notes: In column five, Non-LOS schools are weighted by the kernel weight from the matching procedure.
s.e. is the standard error of the difference in the preceding column.
% LEP is the percentage of the high school that has **L**imited **E**nglish **P**roficency
% Poor is the percentage of students on free or reduced price meals.

Table 2b: Difference in Means between Non-CS and CS schools: 1996

	Full-Sample				Common Support			
	Non-CS	CS	Δ	(s.e)	Non-CS	CS	Δ	(s.e)
Mean SAT Verbal 1996	443.26	372.88	70.38	(13.46)	363.42	391.12	-27.70	(26.95)
Mean SAT Math 1996	443.44	381.90	61.54	(13.60)	365.00	405.85	-40.85	(26.57)
% Male 1996	45.00	42.00	2.00	(3.00)	45.00	43.00	2.00	(3.00)
% LEP 1996	4.40	12.73	-8.33	(1.45)	7.87	18.74	-10.87	(3.02)
% Poor 1996	33.07	43.46	-10.39	(3.32)	44.97	47.28	-2.31	(4.31)
% White 1996	61.13	9.55	51.58	(4.64)	23.39	14.94	8.44	(4.12)
% Black 1996	9.89	53.07	-43.18	(2.51)	34.04	30.55	3.49	(8.07)
% Hispanic 1996	27.49	34.13	-6.64	(4.73)	40.89	49.53	-8.64	(7.34)
% in Twelfth Grade 1996	18.22	15.91	2.31	(0.95)	16.76	16.13	0.63	(0.91)
Teacher's Experience	12.37	14.16	-1.79	(0.39)	13.01	13.47	-0.46	(0.60)
Student/Teacher Ratio	13.56	17.47	-3.92	(0.49)	16.41	16.90	-0.48	(0.67)
% Taking Admissions Exam	63.55	55.87	7.69	(2.85)	53.24	54.61	-1.37	(4.67)
% Sending to UT-Austin	28.00	21.00	7.00	(3.00)	27.00	26.00	1.00	(4.00)
% Sending to Texas A&M	31.00	20.00	11.00	(3.00)	25.00	22.00	3.00	(4.00)
N	963	38			963	23		

Notes: In column five, Non-CS schools are weighted by the kernel weight from the matching procedure.
s.e. is the standard error of the difference in the preceding column.
% LEP is the percentage of the high school that has **L**imited **E**nglish **P**roficency
% Poor is the percentage of students on free or reduced price meals.

Table 3: Means of Score Report Sending Behavior[a]

Year	>4 Scores[b]	UT-Austin	TX A&M	Non-selective[c]	Elite[d]	Flagships	Out-of-State
1996	0.33	0.35	0.31	0.32	0.07	0.16	0.44
1997	0.33	0.34	0.30	0.33	0.07	0.16	0.44
1998	0.32	0.33	0.28	0.31	0.06	0.15	0.42
1999	0.31	0.33	0.28	0.31	0.06	0.15	0.41
2000	0.31	0.35	0.29	0.33	0.06	0.16	0.41
2001	0.32	0.34	0.28	0.34	0.06	0.16	0.41
2002	0.32	0.33	0.27	0.35	0.06	0.15	0.40
2003	0.32	0.33	0.25	0.36	0.06	0.14	0.39
2004	0.31	0.32	0.23	0.37	0.05	0.13	0.37

Notes: [a]The cells contain the proportion of test-takers exhibiting a certain score-report behavior.
[b]>4 Scores refers to test-takers who designate more than four colleges to receive score reports.
[c]Non-selective refers to Non-selective, public, four-year universities in Texas as ranked by Barron's.
Guide to Colleges and Universities in 1998.
[d]Elite refers to a top ten national college as ranked by the U.S. News and World Report for the year 1998.

Table 4: Individual level regressions for score-report sending with fixed effects

	Dependent Variables						
	>4 Scores	**UT-Austin**	**TX A&M**	**Non-Selective**	**Elite**	**Flagships**	**Out-of-State**
Post×No Rank	0.038	0.005	0.013	-0.036	0.002	0.013	-0.013
	[0.004]**	[0.004]	[0.004]**	[0.005]**	[0.002]	[0.003]**	[0.005]**
Post×1st Decile	-0.057	0.030	-0.003	-0.041	-0.008	0.004	-0.023
	[0.004]**	[0.004]**	[0.004]	[0.0036]**	[0.003]*	[0.004]	[0.004]**
Post×2nd Decile	-0.019	0.004	0.003	-0.033	-0.003	0.006	-0.016
	[0.004]**	[0.004]	[0.004]	[0.0036]**	[0.002]	[0.003]**	[0.004]**
Post×2nd Quintile	-0.015	-0.016	-0.002	-0.032	-0.004	-0.037	-0.001
	[0.004]**	[0.003]**	[0.003]	[0.004]**	[0.001]**	[0.003]**	[0.004]
Post×3rd Quintile	0.002	-0.006	0.012	-0.030	0.007	0.005	0.009
	[0.004]	[0.003]	[0.003]**	[0.004]**	[0.001]**	[0.002]**	[0.004]*
Post×4th Quintile	0.008	-0.001	0.029	-0.019	0.008	0.014	0.009
	[0.006]	[0.006]	[0.005]**	[0.007]**	[0.002]**	[0.004]**	[0.007]
Post×5th Quintile	0.015	0.033	0.023	0.001	0.007	0.015	0.004
	[0.013]	[0.012]**	[0.011]*	[0.014]	[0.004]	[0.007]**	[0.015]
Trend (α_T)	0.003	-0.002	-0.005	0.0123	-0.002	-0.002	-0.005
	[0.001]**	[0.001]**	[0.001]**	[0.001]**	[0.000]**	[0.000]**	[0.001]**
Affirmative Action (α_{1996})	0.000	0.008	0.008	0.010	0.001	0.005	-0.002
	[0.003]	[0.003]**	[0.003]**	[0.003]**	[0.001]	[0.002]**	[0.003]
No Rank	-0.090	-0.003	0.003	-0.060	0.010	-0.052	0.003
	[0.004]**	[0.004]	[0.004]	[0.005]**	[0.002]**	[0.003]	[0.005]**
Top Decile	0.213	0.176	0.156	-0.108	0.165	0.114	0.185
	[0.004]**	[0.004]**	[0.006]**	[0.005]**	[0.006]**	[0.005]**	[0.005]**
2nd Decile	0.100	0.122	0.122	-0.042	0.039	0.084	0.086
	[0.004]**	[0.004]**	[0.004]**	[0.004]**	[0.003]**	[0.004]**	[0.004]**
2nd Quintile	0.06	0.077	0.074	-0.010	0.008	0.051	0.04
	[0.003]**	[0.004]**	[0.003]**	[0.004]**	[0.001]**	[0.003]**	[0.004]**
4th Quintile	-0.046	-0.048	-0.051	-0.016	0.002	-0.027	-0.023
	[0.005]**	[0.006]**	[0.006]**	[0.006]**	[0.002]	[0.004]**	[0.007]**
5th Quintile	-0.067	-0.073	-0.040	-0.073	0.014	-0.018	-0.027
	[0.011]**	[0.011]**	[0.010]**	[0.014]**	[0.004]**	[0.007]**	[0.014]
Constant	0.028	-0.094	-0.034	0.341	-0.053	-0.048	0.077
	[0.067]	[0.105]	[0.083]	[0.064]**	[0.029]*	[0.066]	[0.081]
Observations	865,490	865,490	865,490	865,490	865,490	865,490	865,490
R^2	0.12	0.14	0.10	0.16	0.12	0.08	0.12

Notes:* significant at 5%; ** significant at 1% Standard errors clustered at the high school level. Omitted coefficients include student SAT math and verbal scores, racial composition of the school, % on reduced price meals, the number of 12th graders per school, teacher-to-student ratio, teacher experience, and whether the school subsequently gets LOS or CS. All dependent variables are binary. Models include high school fixed effects. Standard errors are clustered at the high school level.

Table 5: Effects of LOS and CS

		Before-After	Dif-in-Dif
LOS			
	No Rank	-.008	.007
		[.010]	[.011]
	Top Decile	.088	.096
		[.016]**	[.011]**
	2^{nd} Decile	.021	.032
		[.011]	[.011]**
	2^{nd} Quintile	.007	.025
		[.010]	[.008**]
	3^{rd} Quintile	.002	.022
		[.009]	[.009]**
	4^{th} Quintile	-.004	.023
		[.011]	[.012]
	5^{th} Quintile	-.019	.019
		[.018]	[.016]
	N	84,023	784,173
	R^2	.010	.011
CS			
	No Rank	.010	.023
		[.014]	[.011]*
	Top Decile	.031	.028
		[.020]	[.017]
	2^{nd} Decile	.011	.003
		[.016]	[.014]
	2^{nd} Quintile	.006	.015
		[.017]	[.013]
	3^{rd} Quintile	.002	.028
		[.013]	[.012]**
	4^{th} Quintile	-.003	.010
		[.021]	[.017]
	5^{th} Quintile	.010	.011
		[.025]	[.026]
	N	44,252	784,721
	R^2	.09	.09

Notes: *→5 % significance level; **→1 % significance level. For the **LOS** Program, the dependent variable is a binary variable that assumes a value of one if a student submits a score to UT-Austin and assumes a value of zero otherwise. For the **CS** Program, the dependent variable is a binary variable that assumes a value of one if a student submits a score to Texas A&M and assumes a value of zero otherwise. The second column estimates of the impact of targeted recruitment programs using a pre-post design. The third column contains estimates of the impact of targeted recruitment programs using a weighted difference-in-differences estimation strategy. The models include high school fixed effects, and standard errors are clustered at the high school level.

Appendix

"General academic teaching institution"[20] means The University of Texas at Austin; The University of Texas at El Paso; The University of Texas of the Permian Basin; The University of Texas at Dallas; The University of Texas at San Antonio; Texas A&M University, Main University; The University of Texas at Arlington; Tarleton State University; Prairie View A&M University; Texas Maritime Academy; Texas Tech University; University of North Texas; Lamar University; Lamar State College–Orange; Lamar State College–Port Arthur; Texas A&M University–Kingsville; Texas A&M University–Corpus Christi; Texas Woman's University; Texas Southern University; Midwestern State University; University of Houston; University of Texas–Pan American; The University of Texas at Brownsville; Texas A&M University–Commerce; Sam Houston State University; Texas State University–San Marcos; West Texas A&M University; Stephen F. Austin State University; Sul Ross State University; Angelo State University; The University of Texas at Tyler; and any other college, university, or institution so classified as provided in this chapter or created and so classified, expressly or impliedly, by law.

[20] Definition as given by Subtitle B Chapter 61 Subchapter A of Texas's Education Code

Appendix Table: Propensity Score Estimates

	LOS	CS
% sending to UT-Austin–1996	-2.21	
	[0.690]**	
% sending to Texas A&M–1996		-.509
		[.775]
% Poor–1996	.012	-.006
	[.007]	[.007]
% Black–1996	.018	.018
	[.004]**	[.004]**
% White–1996	-.041	-.031
	[008]**	[.008]**
% Taking College Entrance Exam–1996	.005	.002
	[.005]	[.006]
Student/Teacher Ratio–1996	.131	.096
	[.032]**	[.033]**
Pseudo R^2	.595	.537
χ^2	296.3	177.4
N	1090	1090

Notes: * $p < 0.05$, ** $p < 0.01$

Table contains coefficients from probit regressions. Standard errors are in parentheses. Sample consists of Texas Public High Schools.

The Southern Africa Labour and Development Research Unit

The Southern Africa Labour and Development Research Unit (SALDRU) conducts research directed at improving the well-being of South Africa's poor. It was established in 1975. Over the next two decades the unit's research played a central role in documenting the human costs of apartheid. Key projects from this period included the Farm Labour Conference (1976), the Economics of Health Care Conference (1978), and the Second Carnegie Enquiry into Poverty and Development in South Africa (1983-86). At the urging of the African National Congress, from 1992-1994 SALDRU and the World Bank coordinated the Project for Statistics on Living Standards and Development (PSLSD). This project provide baseline data for the implementation of post-apartheid socio-economic policies through South Africa's first non-racial national sample survey.

In the post-apartheid period, SALDRU has continued to gather data and conduct research directed at informing and assessing anti-poverty policy. In line with its historical contribution, SALDRU's researchers continue to conduct research detailing changing patterns of well-being in South Africa and assessing the impact of government policy on the poor. Current research work falls into the following research themes: post-apartheid poverty; employment and migration dynamics; family support structures in an era of rapid social change; public works and public infrastructure programmes, financial strategies of the poor; common property resources and the poor. Key survey projects include the Langeberg Integrated Family Survey (1999), the Khayelitsha/Mitchell's Plain Survey (2000), the ongoing Cape Area Panel Study (2001-) and the Financial Diaries Project.

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