When Colleges Drop Affirmative Action: Trends in Admissions Policies and Student Enrollment at Selective U.S. Institutions, 1990-2016

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Abstract

Scholarship on elite American colleges has identified the rise and persistence of a "diversity imperative" – an institution's perceived need to enroll racially heterogeneous student bodies to maintain its status in the field. At the same time, a significant proportion of selective institutions have stopped considering race in admissions. To understand the relationship between affirmative action and enrollment, we analyze enrollment trends by race at 973 competitive institutions in states without affirmative action bans from 1990-2016. We find that considering race is associated with an increase in Black and Latinx enrollments at more competitive institutions. At less competitive schools, considering race is associated with a *decrease* in Black and Latinx enrollments, and an *increase* in White and Asian/Pacific Islander enrollments. The results indicate that the relationship between affirmative action in admissions and enrollment demographics varies by institutional competitiveness; considering race does not necessarily translate into higher Black or Latinx enrollments or lower White and API enrollments.

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Introduction

In July 2018, *The Post and Courier* reported that the College of Charleston, a predominantly White selective public university in South Carolina, had "quietly" eliminated its practice of considering race in admissions decisions two years earlier.[1] The College's Vice President for Enrollment Management, Jimmie Foster, told the newspaper that the undergraduate admissions committee had determined that considering race was no longer necessary because "student-of-color enrollments were increasing substantially" as a result of the college's various diversity initiatives. Outcry over the revealed policy change led the College to announce, just two days later, that it was restoring its prior policy.[2] Coverage of the College's decision presented charts of the school's enrollment by race but did not emphasize a surprising finding. The College's enrollment of racial minority students actually was very similar in the two years it did not consider race as compared to the previous years in which it did. In other words, at face value, using affirmative action did not seem to influence the College's enrollment patterns by racial background. The debate over admissions policy at the College of Charleston reveals two taken-for-granted assumptions in the debate over affirmative action: first, that all selective institutions consider race in admissions unless otherwise prohibited from doing so and, second, that such consideration always lead to a significant increase in Black and Latinx enrollments.

These two assumptions follow from the politics of affirmative action and from scholarship on admissions, both of which have emphasized the dynamics of a small set of elite institutions. The explicit consideration of race in college admissions in the United States, as a policy for facilitating the educational advancement of Black and Latinx students, has been contentious since its beginnings in the 1960s. Prior to the 1960s, U.S. colleges used race, along with gender, ethnicity, and religion, as a demographic category to preferentially and specifically admit White Christian men applicants (Karabel 2005). Starting in the 1960s, in response to civil rights and campus protests, university administrators began to adopt affirmative action policies with the goal of increasing minority student enrollments (Stulberg and Chen 2014). Despite four U.S. Supreme Court decisions over the last four decades upholding the consideration of race in admissions, conservative and libertarian activists and Republican-led government agencies have continued to push colleges and universities to abandon affirmative action. Eight states now ban public universities from considering race in admissions policies (see Table 1). Current contention includes ongoing lawsuits against Harvard University and the University of North Carolina and investigations by the Department of Justice. These lawsuits and investigations – like those that preceded them – focus their attention on the most elite, nationally recognized institutions, primarily flagship public universities and the Ivy League. The targeted schools have countered that their affirmative action policies are lawful and necessary to achieve racially diverse student bodies. Meanwhile, public opinion polls report widely disparate views of the policy that vary depending on the wording of the question (Pew Research Center 2017; Jaschik 2018), but no sign that public opinion is moving clearly against or in favor of considering race in admissions.

As these political and legal debates around considering race in undergraduate admissions persist, scholarship on affirmative action in admissions policies largely has neglected the broader field of selective higher education. Scholars typically treat the story of what happens at "the top" as

[1] Bowers (2018, July 29)
[2] Bowers (2018 July 31)

applicable to a wide (if unspecified) range of institutions. However, two recent national studies challenge that approach. Grodsky and Kalogrides (2008) and Hirschman and Berrey (2017) show that the percentage of selective schools claiming to consider race in admissions has fallen dramatically since a peak in the mid-1990s, and that most of these schools dropped the consideration of race absent the coercive pressure of a state-level ban (see also Table 2). Looking at the approximately 1000 most competitive institutions, Hirschman and Berrey (2017) find that 60% considered race in 1994, but just 35% did in 2014, with the decline concentrated among less elite schools. Of the schools that considered race in 1994 but not in 2014, just 15% were public institutions in states with bans.[3]

Existing scholarship on affirmative action also has been limited in its focus on enrollment declines in states that implement bans on race conscious admissions. That focus overlooks the question of what happens to first-year annual enrollments by racial background, longitudinally, when selective colleges and universities stop using race-based affirmative action admissions policies *absent* a coercive state-level ban. Further we know little about how that relationship between affirmative action and enrollment may vary by the institution's competitiveness. Given the low levels of students from Black, Latinx, and Indigenous backgrounds currently enrolled in selective higher education, the stakes are high. At many schools, even modest changes in enrollment racial demographics over time could fundamentally change the student body as well as the opportunities and experiences of those minoritized students.

We ask: how do the enrollments of first year, Black, White, Asian American/Asian American and Pacific Islander (API), and Latinx students change at schools based on their choice to consider race in admissions (or not)? Are there different trends at schools depending on the competitiveness of their admissions process? Using data from the College Board's Annual Survey of Colleges (ASC), the Integrated Postsecondary Education Data System (IPEDS), Barron's *Profile of American Colleges* (Barron's), and the U.S. Census, we focus our analysis on the 973 institutions that meet the following criteria: 1) located in states without affirmative action bans,[4] 2) had enrollment data from 1990-2016, 3) are not-for-profit (public or private but not for-profit), 4) grant four-year degrees, and 5) had a Barron's ranking (categorized as Maximally Competitive, Very Competitive, Competitive, Less Competitive). We model enrollment demographics using a year fixed-effects approach with institution-specific time trends to account for the possibility that schools may have distinct enrollment trajectories, which may in turn influence the relationship between considering race in admissions and enrollment demographics. Our model highlights the interaction between competitiveness (as measured by Barron's) and the consideration of race (as reported in the ASC).

Our analysis suggests two main findings, summarized in Figure 4. First, when accounting for both year fixed effects and institution-specific time trends, we find immense heterogeneity in the relationship between considering race in admissions and first-year enrollments across

[3] There is no research yet that explains *why* some schools chose not to consider race in admissions without the pressure of a state ban. Although the vast majority of these institutions were not targeted prominently by high-profile lawsuits or enforcement actions, Hirschman and Berrey (2017) hypothesize that they may have changed their practices as a kind of "spillover" (Yue et al 2013), whereby the anti-affirmative action movement's challenges indirectly affected schools that were not direct targets. We offer further hypotheses in the conclusion.

[4] Table 1 outlines the states we excluded by this criterion. We exclude Texas from our analyses because it had a ban during part of our period of study due to the 1996 *Hopwood v. Texas* Circuit Court decision.

competitiveness tiers. Second, the relation between affirmative action and enrollments is surprisingly different at institutions in the two lower competitive status. We find that a decision to stop considering race in admissions at Maximally Competitive institutions was associated with a decline in the first-year, first-time Black and Latinx student enrollment by approximately 0.46 and 0.58 percentage points, compared to years in which race was considered, respectively. A similar relationship emerged for API student enrollment (approximately 0.18 percentage points, $p<0.10$) at Less Competitive institutions. In contrast, at Competitive institutions, a decision to stop considering race was associated with an increase in White student enrollments.

Taken together, our research extends prior findings by showing that schools' racial enrollment demographics vary systematically depending on whether they choose to consider race in admissions. We find that the most competitive institutions have higher levels of Black and Latinx enrollments when they consider race in admissions, but this relationship does not extend to the less competitive institutions. In fact, at the less competitive institutions, the direction of association between considering race in admissions and enrollments is the opposite, as is most clearly observed with Black and Latinx student enrollments. It may be that these institutions stop considering race if enrollment trends from Black and Latinx student are growing, as the College of Charleston's Vice President of Enrollment Management suggested was the case there. Furthermore, our findings point to the need for better understanding of the heterogeneity in what it *means* to consider race in admissions across competitive status tiers.

Our argument proceeds as follows. First, to contextualize our analysis, we discuss existing research on affirmative action in admissions to highlight its narrow focus on elite schools and state-level bans on the consideration of race in admissions. We then review the quantitative scholarship on those bans. This scholarship consistently shows that state-level bans result in a small and significant effect that decreases Black and Latinx enrollments at elite institutions, but it has neglected processes at other competitiveness tiers, and has not analyzed institutions that stop considering race in admissions absent coercive legal pressure. We then draw on broader research on enrollment trends to identify state and federal levels enrollment determinants to include in our statistical modeling before discussing the data, models, and analytical framing for our findings. We conclude with a discussion on directions for future research on affirmative action in admissions and the implications for policy.

Affirmative Action in College Admissions: Elite Schools and Beyond

Universities and colleges exercise wide discretion over how they select students for admittance and they have long treated race as a relevant factor. Before the 1960s, most colleges and universities were exclusively or overwhelming White. Colleges had historically used race in admissions, along with other demographic markers, to limit how diverse their student bodies were, as White, Christian, and male students were the target audience for elite postsecondary education (Karabel 2005). Starting in the 1960s, a handful of majority-White elite colleges and universities began to explicitly consider race in admissions with the intention of moderately desegregating their student bodies. These practices began as a sympathetic response to Civil Rights activism off campus, and then increased and spread in response to campus protests (Stulberg and Chen 2014).

The early adopters of affirmative action began with the laudable recognition that traditional measures of merit failed to identify promising Black students (Hirschman et al 2016). This recognition from adopters did not last. Selective schools, including those that very vocally practice and defend affirmative action policies, rely heavily on standardized test scores and other admissions criteria which are systematically biased against racial minority and lower-income students (Alon and Tienda 2007). Reliance on these admissions criteria has, in part, limited the diversification of the student bodies at more competitive institutions (Alon 2009; Posselt, Jaquette, Bielby, and Bastedo 2012). As Tables 3 and 4 show, median enrollment demographics changed very little between 1990 and 2016 among institutions in the most competitive tiers. At "Maximally Competitive" institutions (defined below), Asian American/API and Latinx enrollment levels increased modestly, but the proportion of Black students increased by only 1.77 percentage points in 26 years, to just over 5%.

In addition to a reliance on quantitative admission criteria, admissions policies have also been influenced by the political and legal environment. Over the last five decades, race-based affirmative action has been legally and politically contentious. A well-organized, majority White conservative and libertarian movement, working alongside Republican-led government agencies, have mobilized an extended campaign against affirmative action, arguing that any consideration of race is unfairly discriminatory (Okechukwu forthcoming). The universities targeted have responded with a careful defensive legal strategy. The first major legal challenge to race-conscious admissions was *Regents of University of California v. Bakke* (1978), in which the Supreme Court determined that considering race in admissions was constitutional but that racial quotas were not. In the 1980s, universities' and colleges' discourses on considering race in admissions shifted towards emphasizing the educational value of diversity, broadly defined, and downplayed the original intent of remedying historical social problems and furthering Black progress (Karabel 2005; Berrey 2015). The anti-affirmative action movement continued to target top universities, most notably Harvard University, Princeton University, University of California, University of Michigan, University of North Carolina, and University of Texas-Austin. Subsequent court decisions narrowed the parameters of affirmative action: universities must now show that their policies are narrowly tailored to achieve the compelling governmental interest in diversity, and that this interest could not be served through through other means (Kahlenberg 2014). In this contested terrain, many colleges and universities continued to consider race because they viewed it as necessary for diversity management (Lipson 2007). The practice has continued into the mid-2010s, when almost all of the most elite public and private institutions had a stated policy of considering race in admissions (Hirschman and Berrey 2017).

As the legal debates have centered on the most elite colleges, research has largely followed suit. One stream of scholarship has focused narrowly on affirmative action in admissions policies and more broadly on universities' understanding and treatment of race. This work consists of historical and ethnographic case studies that demonstrate how top universities adopted and maintained a commitment to such policies. These studies include Karabel's (2005) exhaustive history of admissions at Harvard, Princeton, and Yale, along with studies of flagship state schools that have attracted lawsuits, such as Berrey's (2011, 2015) research on the University of Michigan and Lipson's (2007) comparative work on Berkeley, Austin and Madison.[5] These researchers have

[5] But see Okechukwu forthcoming for comparative case studies that include the City University of New York (CUNY), a non-elite public institution.

identified a persistent attachment to affirmative action admissions policies among administrators at these elite institutions, which they characterize as a "diversity imperative" (Stevens and Roksa 2011) or "diversity orthodoxy" (Berrey 2011). According to Stevens and Roksa (2011), top universities have held fast to the premise, dating to the 1970s, that enrolling a racially heterogeneous student body is a metric of status and marker of legitimacy in elite higher education and that affirmative action policy is crucial for achieving the diversity imperative. Similarly, Garces and Cogburn (2015) found that campus administrators at the University of Michigan expressed a strong normative commitment towards increasing racial diversity, despite the presence of a state-level ban on the consideration of race in admissions. In concentrating on the most elite, national institutions, scholarship has presumed a uniform treatment and understanding of what affirmative action entails across competitive status tiers. This assumption remains untested, despite evidence that considering race in admissions is not ubiquitous in higher education, particularly at less elite institutions (Hirschman and Berrey 2017).

The ongoing political and legal challenges to considering race in admissions have had both direct and diffuse impacts on the use and legitimacy of affirmative action in American higher education. Between 1988 and 2014, policy elimination happened primarily at colleges and universities lower in the status hierarchy, not among the most elite schools: very competitive public institutions and competitive public and private institutions stopped considering race in admissions (Hirschman and Berrey 2017). In other words, there has been a partial deinstitutionalization of affirmative action in admissions across the field of higher education following challenges targeting the most elite institutions (Hirschman and Berrey 2017). In our sample of institutions in non-ban states, about half (51.3%) of colleges and universities used the policy then dropped it (but then may have reinstated in later). We find that less than one-third of schools (30.4%) across ban and no-ban state never even considered race in admissions between 1990 and 2016 and 69.6% considered it at some point during that time period. In 2016, 70% of selective schools across the country, in ban and non-ban states, did not have an affirmative action policy (see Table 2).

The consequences of these policy changes for the enrollment of historically underrepresented students of color have not been studied beyond states with bans and beyond the most elite institutions (Long and Tienda 2008; Howell 2010; Garces 2012b but for simulations of policy elimination, see Alon 2015). Thus, the diffuse effects of the colleges and universities no longer considering race in admissions have not been fully captured.

Factors Affecting the Enrollment of Black and Latinx Students

Numerous factors influence enrollment trends along racial background at selective institutions. For the purposes of this study, of particular importance are the existence of a state ban on affirmative action as well as changes in federal and state funding for higher education, and state demographics.

Quantitative research on the impacts of state bans on Black and Latinx enrollments at selective public institutions represents the second major approach to studying affirmative action. This work tends to confirm that affirmative action admissions policies increased Black and Latinx enrollments and that eliminating the explicit consideration of race undermined those gains. Specifically, state-level bans on affirmative action led to a decrease in Black and Latinx

undergraduate student enrollments and, more specifically, to a decrease in degree completion at elite public institutions in those states (Hinrichs 2014). Although Black undergraduate enrollments did not decrease at four-year public institutions overall, Black and Latinx undergraduate enrollments did decline at the *top* ones (Backes 2012). For example, the ban in California, which took effect in 1997, decreased enrollments of Black and Latinx undergraduates and increased White enrollments at California's selective public colleges and universities (Hinrichs 2010). Because California has a hierarchical university system, the ban also shifted Black, Latinx, and Indigenous students from the more selective research universities (most notably the top ranked four: Berkeley, Los Angeles, Davis, and San Diego) to less selective institutions, including the lower four ranked research universities (Irvine, Riverside, Santa Barbara, and Santa Cruz) (Hinrichs 2010). For example, Hinrichs (2010) found that banning affirmative action was associated with a decrease in Black enrollment of approximately 1.7 percentage points at a top public university. Institutions in California attempted to mitigate these ban effects by, for example, decreasing the weight given to applicants' SAT scores, high school GPA, and family background. But these changes were far from being able to completely offset the observed decline in admission rates (Antonovic and Backes 2014).

These effects were also felt at graduate and professional schools. In the medical profession, bans in six states (California, Washington, Florida, Texas, Michigan, Nebraska) led to an approximate aggregate 17% decline in first-year matriculation of medical students from historically excluded communities (Garces and Mickey-Pabello 2015). To show the potential gains of removing a court-issued ban, Garces (2012a) exploited the three-year period after the *Grutter* decision nullified the *Hopwood* decision in Texas (i.e., 2004-2006). After the ban was lifted, the proportion of underrepresented students of color enrolled in Texas' public graduate and professional schools post-*Grutter* increased a modest 3.4% compared to pre-*Grutter*. This modest effect suggests that cycling between using and not using affirmative action may send mixed signals regarding an institution's commitment to supporting students of color.

While valuable, these studies provide limited information about the existence and elimination of affirmative action admissions policies and the effects beyond those places where opponents have successfully mobilized coercive legal pressure. As yet, we do not know if the estimated effect of state bans will generalize to the very different context of schools choosing to not consider race in admissions. Furthermore, in these studies of the effects of state bans, two issues emerge. First, researchers have not had a time-varying indicator of stated institutional policy—that is, whether or not the institution actually considered race in admissions for each year in the study. Second, in their exclusive focus on bans as a cause of changes in enrollment by racial group, researchers neglect those institutions that are legally permitted to consider race in admissions but do not. Further, these studies tend to assume that all selective institutions consider race in admissions unless they are prohibited from doing so by law. Hirschman and Berrey (2017), building on Grodsky and Kalogrides (2008), highlight an entire population that has received little attention: selective institutions in states with no ban that do not consider race in admissions. To understand the full consequences of the decline of considering race in admissions, we must also study these schools and not presume a static commitment to considering race in admissions.

In our study, we do precisely this. When using a time-varying measure for considering race in admissions, a total of 482 institutions in our sample of 973 institutions had annual variation in their

policy (see Table 2). Put differently, each of these 482 institutions (about 50% of schools in our sample of institutions in non-ban states) at some point made the choice *not* to consider race, absent a state-level ban. Another 295 schools *never* considered race (about 30% of schools our sample).

Enrollment trends for students of different racial backgrounds are influenced by a variety of factors, beyond considering race in admissions, and it is important to account for these factors as well. Of particular relevance are declines in state and federal support of higher education and state demographics. In the face of substantially diminishing state and federal funding, public colleges and universities have pursued other strategies to generate revenue without compromising their competitive academic profiles, including modifying their admission criteria (Jaquette, Curs, and Posselt 2016). Many public institutions have responded by increasing their enrollment of nonresident students who pay higher tuition rates, although there is a negative relationship between nonresident enrollment and the enrollments of Black, Latinx, and lower income students, indicating that admitting more international and out-of-state students may hurt the prospects of students from these underrepresented backgrounds (Jaquette and Curs 2015). State-level demographics also influence enrollments, in particular by amplifying the impact of enrolling more nonresident students. For example, in states with large racially minoritized populations, a one-percentage point increase in nonresident enrollment was associated with a 0.31 percentage point decrease in percentage of minoritized student enrollment (Jaquette, Curs, and Posselt 2016).

Thus, to account for these factors impacting enrollments, our models differentiate institutions according to their prestige and include controls for state and federal government funding and state demographics. Importantly, not all the students admitted to an institution decide to enroll. Our approach and modeling acknowledge (but do not test) other unidentifiable factors that might affect yield (i.e., who ultimately enrolls). These factors can include others changes in the admissions system, along with changes in recruitment policies and financial aid allocation decisions.

Data and Methods

We analyze the publicly-declared admission policies of 973 institutions by drawing on four data sources: the College Board's ASC, Barron's *Profile of American Colleges*, IPEDS, and the U.S. Census Bureau from 1990 to 2016. The ASC collects annual data regarding institutional characteristics, including admissions policies, from more than 3,000 colleges and universities. The ASC data include all questions asked in the Common Data Set Initiative (www.commondataset.org), which is organized by the College Board, Peterson's, and *U.S. News & World Report* to unify and standardize the collection of data from colleges and universities.

The ASC provides institutional characteristics and the primary independent variable for our analysis: whether the college or university reported that race was a factor in the institution's admissions processes that year. Following Grodsky and Kalogrides (2008) and Hirschman and Berrey (2017), we generate a dichotomous measure for "race consciousness" such that colleges and universities are given a "1" if they say they categorize Racial/Ethnic Status as a "Considered," "Important," or "Very Important" factor and a "0" if they do not consider it. This dichotomous treatment of affirmative action is justified both empirically and contextually. When we disaggregated schools' answers to this question along this valuation spectrum over time, they varied primarily between whether race was "considered" or "not considered." When observing

how much value was placed on considering race in admissions in each year between 1990-2016, the majority of institutions in our dataset that considered race (up to 40% of all institutions between 1990 and 2016) marked that they just "considered" race; up to 15% marked racial considerations as "important" in the early 1990s. Very few institutions in any given year marked "very important" (no more than 2.26%). Furthermore, in the broader environment of political and legal challenges to considering race in admissions, institutions' decisions to move from considering race to not considering it is the most meaningful change.

Because we use an annual measure of considering race in admissions, we can show that colleges and universities are not all consistent in their use of an affirmative action policy: many schools consider race in some years but not others. As Table 2 indicates, within our sample of institutions in non-ban states, 50% altered their consideration of race between 1990 and 2016. Of those institutions, the most common pattern was for institutions (79%) to simply drop their consideration of race and not consider it again. Yet almost half (47%) of institutions that changed their policy moved *to* considering race in admissions. A small subset of schools stopped considering race, then considered it, then stopped again. Our fixed-effects modeling takes advantage of these patterns of variation, as we elaborate below.

While our measure of considering race in admissions is self-reported, the self-report serves as way for the institution to signal a strategic and political presentation and thus is not quite equivalent to a traditional survey measure (Hirschman and Berrey 2017). With a traditional survey, one's answers might be strategic due to concerns of social desirability (i.e., wanting the interviewer to think well of the respondent), but these survey responses are usually anonymous or not directly attached to the respondent in a public way. Because schools know that their answers will be displayed in college and university guidebooks and websites like the College Board's *BigFuture,* responses to the ASC questions are best understood as self-presentations to the broader world. Furthermore, we understand an institution's stated *public* commitment as an indicator for the institution's commitment to the diversity imperative. Our models test whether or not this stated commitment is associated with changes in the racial demographics of entering classes

Our sample is composed of Barron's ranked, four-year, public and private not-for-profit, degree-granting colleges and universities. Although more than 3,000 colleges are surveyed by the ASC, just 1,241 are non-profit, four-year institutions whose admissions are ranked Less Competitive or higher by Barron's. Most of the rest have open or nearly open admissions policies. We removed the 239 institutions in states with bans, 26 institutions for missing enrollment data, and three institutions that did not have enough variation or enough variables for regression,[6] leaving us with 973 institutions for which we had 27 years of enrollment data (See Table 2 for descriptive statistics).

We use Barron's to classify the competitiveness of those schools' admissions. These rankings are calculated based on an institution's admitted class's weighted average along four criteria: high school class rank, high school grades, standardized test scores, and an institution's selectivity rate. We match the Barron's institutional rankings from 2004 with all institutions in our sample.

[6] The three institutions in question did not have complete data on funding variables and did not have sufficient variation among the observations that were present. Thus, the model could not estimate with them and we removed them from the sample.

Barron's rankings utilize SAT and/or ACT scores, class rank of entering students, and the institution's rejection rate to create seven (nearly) hierarchical groups: "Most Competitive," "Highly Competitive," "Very Competitive," "Competitive," "Less Competitive," "Noncompetitive," and "Special." We removed "Noncompetitive" schools (which have nearly open enrollment policies) and "Special" schools (which include music schools and military academies, with very different enrollment criteria). Because so few schools in the relatively small Most Competitive category changed their consideration of race in that time period, we collapse Most Competitive and Highly Competitive together into a new top category which we label "Maximally Competitive." The four categories used in our analyses are thus "Maximally Competitive," "Very Competitive," "Competitive," and "Less Competitive."

Finally, we use institutional enrollment and funding data from IPEDS Fall Enrollment Survey, and state racial demographic data from the U.S. Census Bureau, obtained through the National Institute of Health's Surveillance, Epidemiology, and End Results program. Because the National Center for Education Statistics changed its racial demographic definitions for IPEDS in our study's time period, we standardized the racial definitions to obtain the IPEDS-defined, mutually exclusive categories of Black, White, Asian and Pacific Islander (API), and Latinx.[7] From these designations, we created our four dependent variables: institution-level percentages of the compositions of first-year, first-time undergraduate enrollment for each of those racial categories. To address the time-varying impacts at the state-level, we included annual state racial demographics and measures of public funding for all the institutions. The funding variables represent the percentage of each institution's revenue composed of tuition, federal and state appropriations, and federal and state grants and contracts.

To integrate the ASC institutional policy data with the IPEDS enrollment data, we matched the enrollment numbers with the years in which the stated policy governed that enrollment class. From IPEDS, the enrollment numbers represent the constitution of that year's fall class: fall 2016 enrollment counts are those students who enrolled in fall 2016 but were admitted under the 2015 admission policies. Thus, our enrollment time period of 1990-2016 is speaking to the admissions policies of 1989-2015; for our paper, we refer to this simply as enrollment trends between 1990-2016. In doing so, our analytical design ensures there is correspondence between when the policy was applied in the admissions office and the class that was admitted and then enrolled under that policy.

Figures 1 and 2 display the distribution of our data in the form of box plots for Black and White enrollments, respectively. The plots show the 25^{th}, 50^{th}, and 75^{th} percentiles for the percentage point difference between the mean percentage of Black or White enrollment in years that a given school considers race and the mean percentage of Black or White enrollment in years that the same school does *not* consider race, stratified by Barron's ranking. For example, Johns Hopkins University (a Maximally Competitive school) had an average of 5.8% Black enrollment in years it considered race and an average of 5.2% Black enrollment in years that it did not, a difference of 0.6 percentage points. In contrast, the University of Maine (a Competitive school) had 1.1%

[7] We did not include the percentage of Indigenous students enrolling as an outcome variable because this percentage has remained near zero at most institutions since it has been recorded. That said, when calculating the racial demographic proportions, Indigenous students were included as part of the count for total number of first-year enrolling students.

average Black enrollment in years it considered race compared to 1.6% in years it did not, for a difference of -0.5 percentage points. That is, the University of Maine enrolled more Black students in years that it did *not* consider race. The box plot represents the distribution of these differences for all institutions in our sample with variation in their consideration of race.

These figures suggest a fair amount of heterogeneity in the relationship between enrollment trends and affirmative action across institutions, across competitiveness tiers, and across enrollment demographics. Figure 1 shows that institutions in the bottom two competitiveness tiers enrolled more Black students when they did not consider race compared to when they did. By contrast, Figure 2 suggests the reverse relationship for median White enrollments. These figures suggest that institutions like Johns Hopkins are typical among Maximally Competitive schools for enrolling more Black students in years that they considered race, while the University of Maine is typical among Competitive and Less Competitive schools for enrolling *fewer* Black students in years that it considered race, as compared to years that it did not.

To statistically evaluate the relationship between the stated consideration of race in admissions and enrollment demographics between 1990 and 2016, we used a fixed-effects linear regression model with robust standard errors clustered at the institution level and with year effects. We modeled four separate outcome variables using the following model:

$$Y_{it} = \beta_1 * RC_{it} + \beta_2 Barrons_i * RC_{it} + \gamma X_{st} + \delta_t + \delta_i + \varepsilon_{it} \quad (1)$$

Where, Y_{it} is the percentage of the first-year, first-time undergraduate class that identifies as Black, White, Asian American/API, or Latinx at institution i in t time. RC_{it} is a measure of whether the institution publicly declared that they considered race as a factor in admissions (Considered Race) with β_1 as the associated regression coefficient, $Barrons$ is the measure of the institution's Barron's ranking with β_2 as the associated regression coefficient for the interaction term, X_{st} is the matrix of state-time-varying covariates with γ as the associated regression coefficient, δ_t represents year fixed effects to capture changes that are common to all institutions in year t, δ_i represents an institutional fixed effect, and ε_{it} represents an institution- and time-variant error term. The use of year fixed-effects attends to any unobserved variation in our outcome variables that occurs over time and that is not attributed to the explanatory variables in our model, thus capturing the influence of aggregate trends. In other words, the year fixed-effects minimize the influence of trends occurring across institutions in each year (e.g., any general shrinks or expansions in enrollments felt across higher education), relative to year 1990. We chose this fixed-effect modeling to include all institutions' observations (N=973) rather than solely focus on those institutions that had variation in RC_{it}. In doing so, observations without variation on RC_{it} will not contribute to the estimation of β_1, but they will contribute to the estimates of the other covariates.

In addition to year effects, we also estimate institution-specific time trends (ISTT) in a second set of models to allow each institution to have its own time trend (see Jacobsen, LaLonde, and Sullivan 2005 and Dynarski, Jacob, and Kreisman 2017). University administrators are reflexive about their own admissions and enrollment practices and trends, and they may adjust their admissions practices year to year accordingly and in ways that could influence the enrollment of students of different racial backgrounds. For example, when a school experiences an increase in Black and/or Latinx enrollment for any reason (e.g. increased targeted recruitment), it may decide to formally

stop considering race for a year or more, just as the College of Charleston said it did. By including time trends specific to institutions and year fixed effects, we account for how an institution's overall enrollment trends by racial background may influence annual changes in the racial demographics of first-year, first-time enrolled students that are not captured with our explanatory variables. We refer to this fixed-effects ISTT-inclusive model as Model 2 in our result and discussion sections; Model 1 refers to the year fixed-effects modeling without institution-specific time trends. Similar to equation (1), equation (2) below depicts Model 2, where $\delta_i t$ represents the institution-specific time trends:

$$Y_{it} = \beta_1 * RC_{it} + \beta_2 Barrons_i * RC_{it} + \gamma X_{st} + \delta_t + \delta_i + \delta_i t + \varepsilon_{it} \quad (2)$$

In other words, Model 1 asks: "compared to a school's overall average enrollment rates by racial background for the 1990-2016 period, how much does Black, White, API, or Latinx enrollment change in years when the school considers race?" Comparatively, Model 2 adds in an extra control specification such that the question becomes, "compared to a school's trend-adjusted average enrollment rates by racial background, how much does Black, White, API, or Latinx enrollment change in years when the school considers race?" Model 1 does not capture an institution's awareness of its applicant and enrollment trends, whereas Model 2 is inclusive of such an awareness. Capturing such a phenomenon is critical because institutions likely change their admissions and enrollment practices by observing their own applicant and enrollment trends. Therefore, we rely primarily on Model 2 to report our results.

Given our analysis of fixed-effects in both models, we do not include time-invariant covariates, such as Barron's rankings (apart from the interaction term) or institutional sector (public or private). Interpretively, β_1 represents the average percentage-point increase or decrease in the percentage of first-year, first-time undergraduates of each of the four racialized groups (i.e., Black, White, API, or Latinx) when an institution considers race as a factor in admissions practices compared to when it does not consider it a factor.

Importantly, we caution against strong causal interpretations of our findings. While we find that some trends in enrollment demographics are *associated* with racial considerations in admission, we cannot conclude that considering race in admissions *determines* student enrollment by racial group. First, admissions offices' behaviors are difficult to measure, particularly over time. Few researchers have been able to gain access to what happens within admissions offices to systematically document the heterogeneity in practices (but see Stevens 2007; Posselt 2016; Bastedo and Bowman 2017; Bastedo, Bowman, Glasener, and Kelly 2018; Bowman and Bastedo 2018). Second, enrollment management practices and policies structure how large of a class can be constituted and how to actively enroll students (DesJardins and Bell 2006; Hossler 1990), but these practices and policies are not typically measured or documented longitudinally. Third, as previously stated, admissions' office practices alone do not determine enrollment, as other practices including outreach, recruitment, and merit aid may affect both the applicant pool and the yield. Thus, we model the relationship between the stated use of considering race in admissions and racial enrollment demographics in order to describe the existence of these relationships and the extent to which they hold across specifications.

Results

Our results focus on enrollment demographics between 1990-2016 at the 973 selective degree-granting colleges and universities in non-ban states that had complete enrollment data for this period. Our results are shown in Table 5, with Model 1 having year fixed effects and Model 2 having year fixed effects and institution-specific time trends. While Model 1 provides insight into how enrollment changes on average when an institution considers race in admissions, Model 2 unpacks whether an institution was already going to enroll more or less students from particular racial backgrounds based on its individual enrollment trends. For this reason, we focus our discussion primarily on Model 2, as we presume it is realistic that institutions would consider enrollment trends in making decisions about their admission and enrollment practices.

Table 5 shows the relationships between enrollment trends and considering race in admissions. Interpretatively, the coefficients for Considered Race and its interaction with Barron's ranking pertain to those 482 institutions that dropped and/or adopted a race-based affirmative action admissions policy in our time period. As a result, the coefficient estimates of β_1 represent the average percentage point-change in enrollment of first-year, first-time undergraduates when these institutions considered race as compared to years when they did not. For example, in Model 2, when Competitive schools (the omitted category) considered race in admissions, the Black student enrollment in the entering class was higher than when those schools did not consider race (on average 0.23 percentage points higher, though this difference was not statistically significant). A similarly substantive change was evident in Latinx student enrollment, which were on average 0.33 percentage points higher at Competitive schools when considering race in admissions, compared to when they did not. This relationship was reversed for White student enrollments, as enrollments in Competitive schools were on average 0.821 percentage points lower when race was considered in admissions. API student enrollments at Competitive institutions did not meaningfully change when the admissions office considered race (0.07 percentage point decrease, though this estimate was not statistically significant).

To understand how changes in enrollment vary by an institution's competitive status in the field of higher education, we produced estimates for the interaction effect of considering race and Barron's rankings on enrollment percentages for each racial background. The interaction effects allow us to estimate the average change in enrollment percentages for when race was a factor in admissions relative to when it was not a factor in our observed period for institutions in each tier. With the horizontal axis centered at zero, estimates to the right of the line suggest higher levels of estimated enrollment while race was a factor in admissions, while estimates to the left of the line suggest the reverse. We display these findings for Model 1 in Figure 3 and for Model 2 in Figure 4 and focus our discussion on Figure 4.

Figure 4 shows clear patterns in Black student enrollment and more mixed patterns in White, API, and Latinx student enrollments. When Very Competitive and Maximally Competitive institutions considered race, they yielded entering cohorts that were, respectively and on average, 0.43 and 0.46 percentage points higher in their proportion of Black student enrollment compared to years when they did not consider race. This finding is consistent with prior research showing that the most prestigious public universities experience the largest decline in Black student enrollments when affirmative action bans go into effect, though we find a more modest effect size among these

institutions that stop considering race absent a legal mandate (Howell 2010, Hinrichs 2014). At Competitive institutions, Black enrollments also increased when race was a factor in admissions (0.23 percentage points higher, not statistically significant). At Less Competitive schools, Black student enrollment was 0.58 percentage points (not statistically significant) *lower* when race was considered a factor. The pattern for White student enrollment across competitive tiers was reversed. At Competitive, Very Competitive, and Maximally Competitive institutions, when they considered race in admissions, White student enrollments was, respectively and on average, 0.82, 0.22, and 0.76 percentage points lower than when race was not considered. In contrast, at Less Competitive institutions, White student enrollments were 0.83 percentage points higher than when they did not consider race. Among our estimates for White student enrollments though, only the relationship observed at Competitive institutions was statistically significant ($p<0.10$).

Among API student enrollments, there were very modest and mixed changes in enrollment when institutions at different tiers considered race in admissions, yet only the estimates for Less Competitive institutions are statistically significant; specifically, when Less Competitive and Very Competitive institutions considered race, they had higher rates of enrollment of API students (0.18 and 0.08 percentage points, respectively), yet when Competitive institutions considered race, their API enrollment was slightly lower (0.07 percentage points). When Maximally Competitive institutions considered race, changes in API enrollment were on average estimated at 0. For Latinx student cohorts, considering race is associated with higher enrollment at Less Competitive institutions (by 0.10 percentage points, not statistically significant), Competitive institutions (by 0.33 percentage points, $p<0.05$), and Maximally Competitive institutions (by 0.58 percentage points, $p<0.05$). Although curiously, Latinx student enrollment is slightly lower (0.19 percentage points, not statistically significant) at Very Competitive institutions in years that those institutions consider race in admissions.

Among our covariates, some relationships emerge between enrollment and funding, but we do not find consistent patterns between enrollment and state demographics. For example, higher levels of federal funding in an institution's revenue stream were associated with higher levels of Black and Latinx enrollments, but this was not the case for White or API student enrollments, suggesting that institutions' enrollment trends are susceptible to how their revenues are constituted. For the state demographics covariates not depicted in Table 5, Model 2 suggests that changes in state demographics have the greatest impact for API and Latinx student enrollments ($p<0.10$). Given that changes in state demographics by a single percentage point are likely associated with larger shifts in state policies, we interpret these relationships cautiously. Though not revealing a consistent pattern between state racial demographics and institutional racial enrollment demographics, these estimates suggest that institutional enrollment trends are responsive to state demographics, and this may impact why institutions stop considering race in admissions at some competitiveness tiers.

Taken together, our findings in Model 2 reveal that considering race in admissions has nontrivial implications for enrollment trends, and these implications vary by Barron's rankings. The most striking results show that affirmative action policies are associated with higher percentages of Black and Latinx enrollments at the Maximally Competitive institutions and higher API student enrollment at Less Competitive institutions. Similar relationships were not identified for White student enrollments at any competitiveness tier. This suggests that when institutions chose not to

consider race in admissions, the consequences for the racial composition of their undergraduate student body differ depending on the institution's prestige.

Sensitivity analyses. We address two robustness concerns of our modeling to understand how sensitive our results are to alternative model specifications: institutional type (public or private) and delayed effects of changes to admissions policies. While it is likely that institutional type matters in enrollment efforts, our modeling and analytic focus (states with no ban, being in one of the four Barron's ranked categories, *and* being public or private non-profit) raises concerns of small sample size, especially for public institutions. As a result, estimating our variable of interest (i.e., Considered Race) is possible, but we cautiously interpret those results and only provide estimates for the Competitive category since it has the largest cell-size among the competitiveness tiers.

Among private Competitive institutions in Model 2, institutions had on average and respectively 0.03 and 0.28 percentage points higher Black and Latinx first-year enrollment classes when they considered race in admissions, though these estimates were not statistically significant. In contrast, these institutions had on average 0.75 and 0.18 percentage point lower White and API student enrollments when race was considered; neither estimate were statistically significant. Among public Competitive institutions, Black, API, and Latinx enrollments were 0.46 ($p<0.10$), 0.08 (not statistically significant), and 0.40 percentage points ($p<0.05$) higher, respectively, when race was considered, while White enrollments were 0.92 percentage points ($p<0.05$) lower. In relation to Figure 4, the private institutions' effect sizes are marginally larger for White and API enrollments, but in the same direction. For Black and Latinx student enrollments, the estimates' directions are similar to those depicted in Figure 4 but with smaller magnitudes (0.23 and 0.33 in Figure 4, respectively). Among public Competitive institutions, Black, White, and Latinx enrollments were all in the consistent direction with similar magnitudes with Figure 4, while API enrollments were of the same magnitude (0.08) but in the opposite direction. Neither in Figure 4 nor among public Competitive institutions, though, were these estimates statistically significant.

With these sensitivity analyses, the overall findings in our model specifications are not substantively altered. Taken together, these analyses underscore our contention that considering race in admissions does not operate in a singular fashion across all higher education institutions and that future research should aim to understand how public and private Competitive institution differ in their admissions practices.

When colleges and universities modify their admissions policies, enrollment demographics may not change for another year or more, so the impact of those decisions may not be observed immediately. Such policy modifications may have "delayed effects". To assess the possibility of delayed effects, we generated a one-year lead of the outcome variables and re-ran Models 1 and 2. In other words, we examine the outcome variable for 2004 with all the independent variable specifications for 2003. While we ran many alternative specifications for delayed effects, the findings under Model 2's specifications that are restricted to within-competitiveness tier (e.g., delayed effects among Less Competitive and Competitive institutions) are most relevant. We do this within-competitiveness tier analysis because an overall model wherein Barron's ranking is an ordinal variable may suggest that there are no delayed effects at a particular tier. This could arise

because, when we look at the tiers in relation to one another, there may be delayed effects within each tier that are being masked.

Among Less Competitive institutions under Model 2's specification, White, API, and Latinx enrollments were on average and respectively 0.45, 0.18, and 0.21 percentage points higher when race was considered compared to when it was not; only the API student enrollment estimates were statistically significant. Black student enrollment at Less Competitive institutions were modestly and statistically insignificantly lower (0.05 percentage points) when race was considered. These estimates are all in the same direction as those in Figure 4 and though they varied in magnitude for Black, White, and Latinx student enrollments, (-0.58, 0.83, and 0.10, respectively, in Figure 4). For API student enrollments, the estimates were consistent with those in Figure 4. Among Competitive institutions under Model 2's specification, Black and Latinx enrollments were, on average and respectively, 0.19 and 0.31 (p-value<0.05) percentage points higher when race was considered. In contrast, White enrollments were 0.69 percentage points ($p<0.10$) lower when race was a factor in admissions; API enrollments were estimated at a 0 percentage points change. Much like the estimates for delayed effects among Less Competitive institutions, these estimates are consistent with Figure 4, in direction and with smaller magnitudes, for Black, White, and Latinx student enrollments (0.23, -0.82, 0.33 in Figure 4). For API student enrollments, the magnitude of delayed effects was a bit larger for API student enrollments (-0.07 in Figure 4).

From these analyses, we find that the impact of admission decisions in one year may influence enrollment trends in following years, but this is not surprising. Enrollments are not isolated events, and admissions and enrollment practices are ritualized practices that likely carry over between years – likely, as does their influence. Given that the estimates' directions were consistent with our general model and that most estimates are statistically non-significant, we suggest that future research should attend to such time trends when they longitudinally study enrollment trends.

Discussion and Conclusion

While prior studies have evaluated the effects of state-level bans on considering race in admissions, our study examines changes in enrollment demographics among a population that has not previously been studied: institutions that are in states with no bans and choose not to consider race in admissions. Our findings (visualized in Figure 4 and discussed above) show that Maximally Competitive and Very Competitive institutions that opt not to consider race in admissions enrolled fewer Black students (a drop of 0.46 and 0.43 percentage points, respectively) compared to when they did consider race in admissions policies. Similarly, Maximally Competitive institutions enrolled cohorts with fewer Latinx students (down by 0.58 percentage points) when they eliminated their affirmative action policies. We did not find similar, statistically significant changes in White or API student enrollments at Maximally Competitive or Very Competitive institutions Among Competitive institutions, we found they enrolled cohorts with higher proportions of Latinx students when they considered race (0.33 percentage points). The trends at Less Competitive institutions are counterintuitive. At these schools, considering race in admissions is associated with a *decline* in Black student enrollment (0.58 percentage points, though not statistically significant) and an *increase* in API student enrollment (0.18 percentage points). In addition to these modest results, Figure 4 outlines small and statistically insignificant relationships

between affirmative action and White and API enrollments at Very Competitive and Maximally Competitive institutions.

While an approximately half percentage point change in Black enrollment at top schools may sound small, these numbers are substantively significant, and plausible when compared with estimates of the effects of state bans (e.g. Hinrichs [2010] estimate of a 1.7 percentage point drop in Black enrollments at the most elite public schools). Because Black students make up an already-small proportion of first-year students at these institutions, modest changes in percentage points actually constitute a sizeable proportion of current enrollment trends at Very Competitive and Maximally Competitive institutions. Tables 3 and 4 present the racial demographics for within-year median enrollment percentages for each tier of school in our study; we depict medians to avoid any skewing arising from outliers. In 1990, the median percentage of Black student enrollments at Maximally Competitive schools was 3.29%; in 2016, it was 5.06%. These numbers imply that an approximate 0.46 percentage point drop associated with ending affirmative action in admissions could represent an average 11% reduction in Black student enrollment (i.e., 0.46% makes up 11% of 4.2%, which is an average of Black enrollments at Maximally Competitive institutions between 1990 and 2016). In addition, given the low levels of Black students currently in higher education, particularly at the most elite institutions, these percentage changes in enrollment could indicate fundamental changes in the student body.

In contrast to the substantive significance of changes in Black student enrollments when considering race at Maximally Competitive institutions, the changes in White student enrollments at these institutions, while larger in magnitude, are not as substantively significant given student body demographics. Figure 4 depicts an average 0.73 percentage point drop (not statistically significant) in White student enrollment when race is considered in admissions at Maximally Competitive institutions. Though a decline, when viewing these institutions as primarily serving White students – as evidenced by their student bodies being 89%White in 1990 and 69% White in 2016 (Table 4) – this decrease in enrollment does not meaningfully have the same level of impact as the estimates for Black student enrollments. For example, when Maximally Competitive institutions drop the consideration of race in admissions, our model suggests that the associated average 0.73 percentage point increase in White student enrollments could represent an average increase of less than one percent (0.93%) in White student enrollment.[8] In comparison, dropping the consideration of race was associated with an estimated average 11% reduction in Black student enrollments between 1990 and 2016. Thus, the stakes in whether or not to consider race in admissions as a factor of factors are higher for Black student enrollments – and to a lesser degree Latinx student enrollments. Additionally, we see very little association between considering race in admission and API enrollments; we estimate no change in API enrollment at Maximally Competitive institutions when institutions stop doing affirmative action (Figure 4).

In contrast, Less Competitive and Competitive schools already obtained median Black enrollment levels much above that of their more elite peers by 2016—approximately 10% and 12% of their first-year student bodies, respectively, which is more than 5 percentage points higher than the median Black enrollment at Maximally Competitive schools. This different baseline level of Black student enrollment may thus help explain the differential relationships identified between the

[8] As calculated before with Black student enrollments, 0.73% makes up 0.93% of 78.89%, which is an average of White enrollments at Maximally Competitive institutions between 1990 and 2016.

bottom two and top tier. It is possible that administrators at the Competitive and Less Competitive schools that decided to drop affirmative action in admissions believed their institutions already have sufficient quantities of non-White students to achieve their numerical diversity goals. In Stevens and Roksa's (2011) terms, it is possible that these administrators concluded that they could achieve their diversity imperative *without* contentious admissions policies. While these administrators may be making a pragmatic calculation, and it is unlikely that students notice year-to-year policy changes, an institution's decision to stop considering race may have negative consequences nonetheless. When a university or college abandons its public display of intentional racial inclusion, in the form of a high-profile policy, it stops signaling to Black and other racially minoritized students that it values their presence and participation on campus.

It is very plausible that administrators elect to drop affirmative action because they view it as unnecessary for achieving a diversity imperative, especially given the findings in Model 2, which accounts for the potential that administrators are aware of their applicant and enrollment trends and change their consideration of race accordingly (as apparently happened at the College of Charleston). Yet, the choice by some Very Competitive and Maximally Competitive institutions to not consider race in admissions presents a head-on challenge to the diversity imperative, as this decision is correlated with a decline in Black and Latinx student enrollment that would presumably imperil those schools' quest for status. Further quantitative and qualitative analyses are needed to identify and tease apart explanations for why highly competitive schools might make this choice.

Our work builds on Grodsky and Kalogrides' (2008) and Hirschman and Berrey's (2017) findings that, contrary to scholars' presumption, not all schools in non-ban states use affirmative action and that the consideration of race in admissions varies by an institution's selectivity. We contribute the first estimates of the relationship between the choices to voluntarily stop considering race and demographic enrollment changes. We find heterogeneity in the relationships between enrollment trends and considering race across enrollment demographics and competitiveness tiers. This suggests that considering race in admissions does not yield the same enrollments at all schools, as schools have different approaches to doing admissions (Bastedo, Bowman, Glasener, and Kelly 2018) and use the policy in different institutional contexts, with different sorts of applicant pools (Posselt 2016). Furthermore, the relationship between considering race and enrollment demographics does not always change in the expected direction, especially across competitiveness tiers: for Less Competitive Schools, considering race may be associated with *higher* White enrollments and *lower* Black enrollments. In this way, there is no uniformity in the relationship between affirmative action and student enrollment across higher education's status hierarchies. This heterogeneity calls for an evaluation of what considering race in admissions actually involves and what the diversity imperative means, as practice and ideology, at each competitiveness tier, especially at Less Competitive schools.

Future research should build on these findings to better understand what prompts institutions to voluntarily eliminate their affirmative action admissions policies. Identifying their rationales may reveal linkages across the higher education field. For example, administrations at lower status schools may be retreating from affirmative action when they observe opponents challenging the policy at the most elite institutions. Such linkages would be consistent with spillover effects of the elite-focused anti-affirmative action movement, suggesting that political and legal pressures on institutions at the top of the status hierarchy reverberate down the field. Furthermore, just because

the increases in Black and Latinx enrollments associated with considering race in admissions are modest at the most elite institutions, this does not mean that institutions should abandon their efforts. As Alon (2015) demonstrates, less-contentious alternative methods, such as class-based affirmative action, may increase some measures of demographic diversity, but they do not achieve the same levels of racial diversity as methods that consider race in admissions. Alon argues that the path to both racial and economic inclusion is to embed the consideration of race within class-based affirmative action. Our findings echo the importance of considering race. Our analysis suggest that abandoning a commitment to affirmative action is associated with nontrivial losses in Black and Latinx enrollment at elite schools. Affirmative action has not been the silver bullet upon which colleges and universities desegregate student bodies, but it can be a linchpin that holds together a persistently challenged commitment to racial inclusion in higher education.

Table 1. States with Bans

State Name	Year Ban Began in State
Texas	1996-2003
California	1997
Washington	1998
Florida	1999
Michigan	2006
Nebraska	2008
Arizona	2010
New Hampshire	2011
Oklahoma	2013

Note: Texas did not permit affirmative action from 1996-2003 due to the ruling precedent of *Hopwood v Texas* for the U.S. Court of Appeals for the Fifth Circuit decision. But, in this time, *Hopwood* only applied to Texas because it was a circuit-level decision and the two other states in the circuit (Louisiana and Mississippi) were still under federal desegregation orders that took precedence (Shaw 2016).

Table 2. Full sample descriptive statistics between 1990-2016

	Total Sample		Analytical Sample	
Institutional demographics	N	Percentage	N	Percentage
Total Institutions	1,215	100	973	100
Public Institutions	426	35.1	331	34.0
Private Institutions	789	64.9	642	66.0
Considered race anytime	846	69.6	681	70.0
Never Considered race anytime	369	30.4	295	30.3
In states with eventual bans	239	19.7	0	0
In states with no bans	976	80.3	973	100
Considered Race in 1990	645	53.1	522	53.6
Had variation in policy of considering race	619	50.9	482	49.5
Considered Race in 2016	365	30.0	308	31.7
Considered race anytime	619	100	482	100
Institutions that stopped considering once	488	78.8	371	77.0
Institutions that stopped considering 2+	86	13.9	71	14.7
Institutions that began considering once	289	46.7	226	46.9
Institutions that began considering 2+	51	8.2	42	8.7
Barron's Selectivity Ranking				
Less Competitive	258	21.2	205	21.1
Competitive	565	46.5	454	46.7
Very Competitive	243	20.0	196	20.1

Maximally Competitive	149	12.3	118	12.1

Note: The top Barron's category of Maximally Competitive in this paper combines the top two categories of "Most Competitive" and "Highly Competitive" on Barron's overall scale. The "analytical sample" refers to those institutions that are in non-ban states.

Table 3. Racial enrollment demographics of institutions in non-banned states, by Barron's selectivity ranking in 1990

Barron's Ranking	Black	White	API	Latinx
Less Competitive	6.10%	63.77%	0.87%	1.45%
Competitive	4.02%	85.05%	1.01%	1.26%
Very Competitive	3.31%	85.75%	1.78%	1.27%
Maximally Competitive	3.29%	88.79%	3.09%	1.75%

Note: These percentages represent the specific within-year medians for each of the four Barron's categories used throughout this paper.

Table 4. Racial enrollment demographics of institutions in non-banned states, by Barron's selectivity ranking in 2016

Barron's Ranking	Black	White	API	Latinx
Less Competitive	12.06%	51.06%	1.65%	7.56%
Competitive	10.21%	71.38%	2.73%	8.09%
Very Competitive	6.50%	75.40%	3.86%	7.32%
Maximally Competitive	5.06%	68.99%	5.30%	10.28%

Note: These percentages represent the specific within-year medians for each of the four Barron's categories used throughout this paper.

Table 5. Fixed Effects model with all time-varying covariates for all institutions in non-banned states with and without institution-specific time trends

	Black Student Proportion		White Student Proportion		API Student Proportion		Latinx Student Proportion	
VARIABLES	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Considered Race	-0.617*	0.229	0.235	-0.821*	0.158	-0.073	-0.188	0.331**
	(0.325)	(0.251)	(0.461)	(0.460)	(0.112)	(0.088)	(0.162)	(0.144)
Considered Race X Less Competitive	-1.381**	-0.809	2.151**	1.647**	0.196	0.257**	-0.154	-0.227
	(0.633)	(0.493)	(0.932)	(0.739)	(0.154)	(0.124)	(0.304)	(0.291)
Considered Race X Competitive	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Considered Race X Very Competitive	1.118***	0.196	-0.980	0.606	-0.264	0.151	0.081	-0.524**
	(0.411)	(0.304)	(0.710)	(0.681)	(0.235)	(0.132)	(0.228)	(0.217)
Considered Race X Maximally Competitive	1.233***	0.233	-0.555	0.058	-0.350	0.074	0.376	0.246
	(0.450)	(0.351)	(0.914)	(0.964)	(0.313)	(0.292)	(0.376)	(0.346)
Federal Appropriations	9.952*	-3.465	-13.305	3.907	-1.857	-0.913	2.247	-1.322
	(5.129)	(3.908)	(8.216)	(4.653)	(1.525)	(0.851)	(2.699)	(1.461)
State Appropriations	3.457**	-2.255*	-6.804***	0.362	0.461	0.361	0.392	0.651
	(1.729)	(1.162)	(2.543)	(2.055)	(1.367)	(0.548)	(1.027)	(0.684)
Tuition	-0.031	-0.063**	0.090	0.118*	-0.013	0.010	-0.050**	0.004
	(0.044)	(0.031)	(0.068)	(0.060)	(0.023)	(0.014)	(0.024)	(0.015)
Federal Grants	1.471	2.517**	-2.934	-3.706*	0.285	-0.261	1.850**	0.155
	(1.448)	(1.033)	(2.250)	(1.896)	(0.817)	(0.443)	(0.854)	(0.491)
State Grants	2.490	1.961	-2.745	-3.035	2.781**	0.025	-0.203	-2.464
	(3.280)	(2.540)	(4.567)	(3.958)	(1.132)	(0.670)	(2.007)	(1.989)
Constant	-60.490	31.588	171.035	-101.601	29.811	59.491**	6.784	26.000

	(40.030)	(81.072)	(112.542)	(241.017)	(41.422)	(30.264)	(38.065)	(56.967)
Institution-specific time trends	NO	YES	NO	YES	NO	YES	NO	YES
Observations	20,261	20,261	20,261	20,261	20,261	20,261	20,261	20,261
R-squared	0.086	0.467	0.261	0.498	0.095	0.475	0.452	0.667
Number of institutions	973	973	973	973	973	973	973	973

Considering race is dichotomously coded, with estimates in reference to an institution saying they do not consider race as a factor in admissions. The Barron's rankings' reference category is Competitive. The funding variables are a measure of what proportion of an institution's revenue is derived from that source. This model includes annual state level racial demographics as covariates, but they are not shown. Time effects are included with reference to 1990. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10

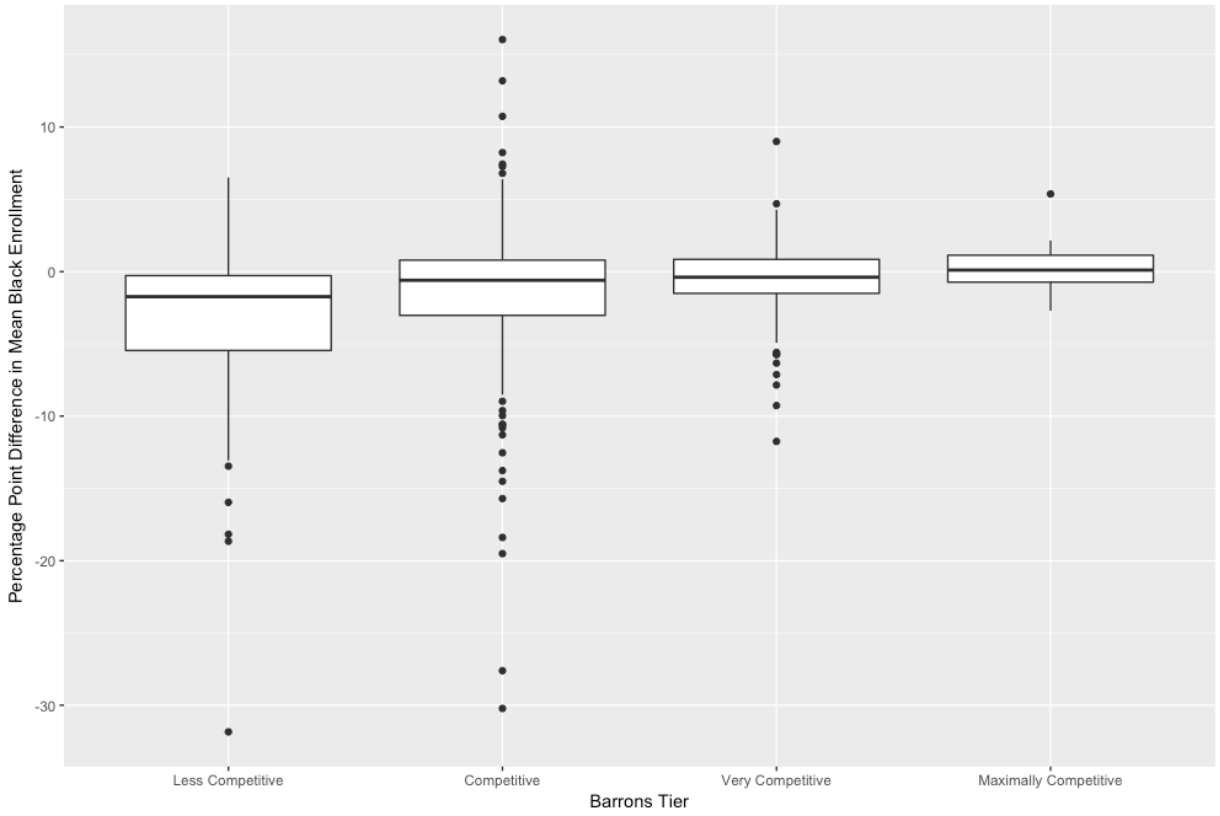

Figure 1. Difference in mean enrollment percentages of Black students between years when race was considered in admissions and when it was not considered across competitiveness tiers.

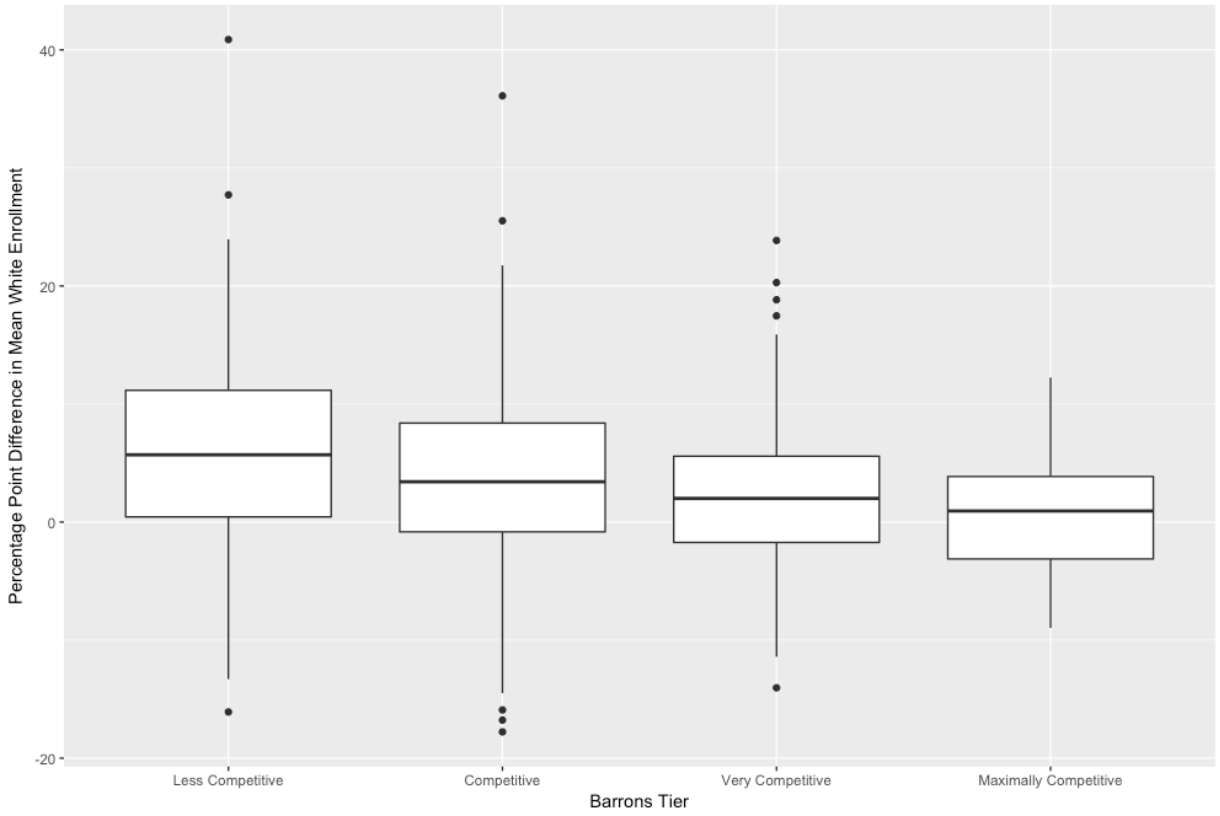

Figure 2. Difference in mean enrollment percentages of White students between years when race was considered in admissions and when it was not considered across competitiveness tiers.

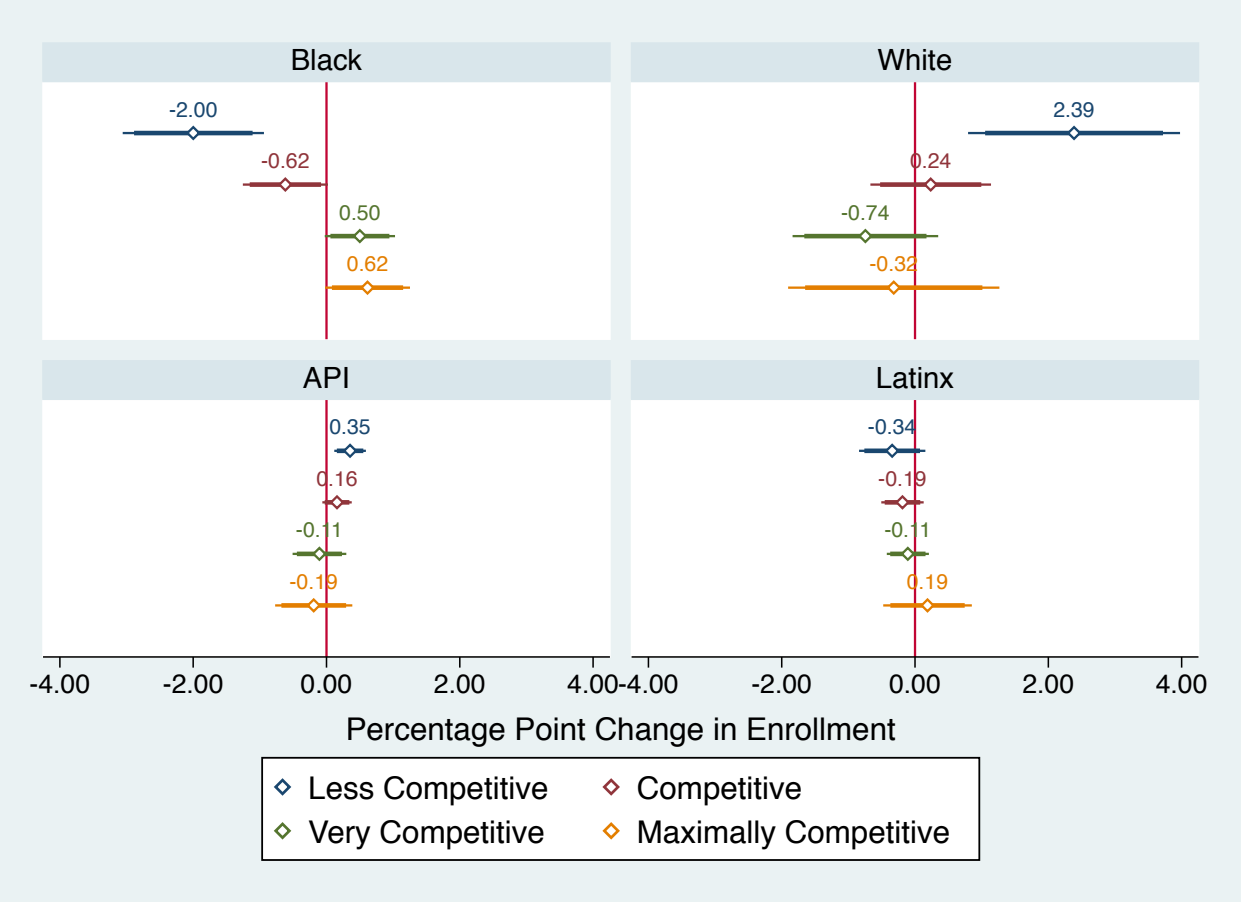

Figure 3. Change in enrollment percentages of Black, White, Asian and Pacific Islander, and Latinx students across competitiveness tiers with year fixed effects, and 90% and 95% confidence interval indicated.

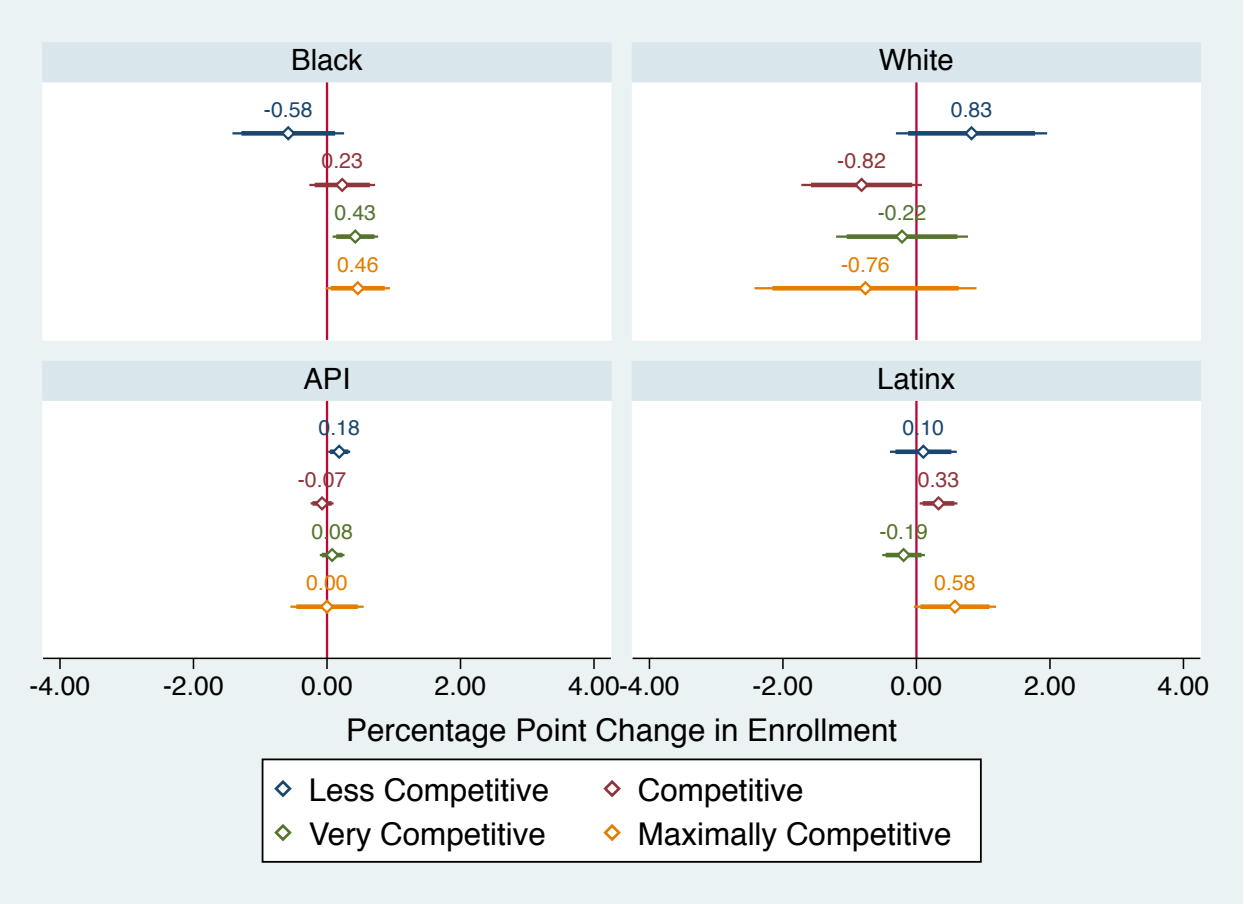

Figure 4. Change in enrollment percentages of Black, White, Asian and Pacific Islander, and Latinx students across competitiveness tiers with year fixed effects and institution-specific time trends, and 90% and 95% confidence interval indicated.

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