# White Flight in Higher Education?

# Racial Status Hierarchies and the Establishment of Hispanic-Serving Institutions

Laura T. Hamilton
Charlie Eaton
University of California-Merced
Simon Cheng
University of Connecticut

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Direct correspondence to Laura Hamilton, School of Social Sciences, Humanities and Arts, 5200 North Lake Road, University of California-Merced, Merced, CA 95343 (lhamilton2@ucmerced.edu). This research was supported by a William T. Grant Scholars grant awarded to Laura Hamilton. Opinions reflect those of the authors and do not necessarily reflect those of the granting agency.

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Scholars have demonstrated that white families frequently avoid K-12 schools attended by racially marginalized populations, contributing to persistent racial segregation in a post-Brown v. Board of Education era. To date, however, there has not been a systematic assessment of white flight in higher education. We utilized nearly 30 years of longitudinal annual college-level surveys of the Integrated Postsecondary Education Data System (IPEDS) to conduct event studies and trend break analyses testing for statistically significant changes in race-specific firstyear enrollment after Hispanic-Serving (HSI) designation at four-year universities in the United States. The transition to HSI offers a natural experiment to identify flight behaviors among privileged populations. Our findings indicate that both white and Asian families avoid colleges and universities racially marked as "for" Latinx students. Declining white and Asian enrollments after the transition to HSI are apparent in public universities and, in more recent decades, at private universities. Additionally, postsecondary schools often raise first-year Latinx enrollments to cross the 25 percent threshold necessary to access federal Title V funds associated with HSI status—but then artificially cap Latinx enrollment. We argue that these individual and organizational behaviors are a reflection of U.S. higher education as a racialized status system.

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In *Broke: The Racial Consequences of Underfunding Public Universities*, Hamilton and Nielsen (2021) suggest that white flight is occurring in the four-year postsecondary sector. After a public university profiled in their study achieved Hispanic-Serving Institution (HSI) status, the number of enrolled white students began to drop, even during a period of substantial growth. The dip began with the first class of students to be recruited under the HSI distinction. Hamilton and Nielsen conclude that whites fled when the school's sizeable Latinx population was made visible. As the book quotes of a beleaguered university enrollment manager: "It's just not that many white folks.... Those folks want to be with people who resemble them. They want to get away." In less than a decade, the university moved from 25 percent to 11 percent white.

In this article, we use national postsecondary data to determine if Latinx students' entry into four-year postsecondary education has been met with white flight from four-year public and private universities<sup>1</sup> demarcated as serving these students. Scholars have demonstrated that white families frequently avoid K-12 schools attended by racially marginalized populations, contributing to persistent racial segregation in a post-*Brown v. Board of Education* era (e.g., see Clotfelter 2004; Fairlie and Resch 2002; Hall and Hibel 2017; Ledwith and Clark 2007; Owens 2017; Renzulli and Evans 2005; Zhang 2011). To date, however, there has not been a systematic assessment of white flight in higher education using large-scale quantitative data.

The changing demographics of college-attending individuals in the US offer a unique opportunity to observe how white flight may have unfolded over the last several decades, helping to concentrate Latinx college students in racially homogenous clusters. This period is also

<sup>&</sup>lt;sup>1</sup> We often use the terms college, university, and school interchangeably.

characterized by an explosion in Hispanic-Serving Institutions, which are primarily defined by a student body that is at least 25 percent Latinx. Today, Latinx students remain clustered in HSIs (Garcia 2019). These schools comprise around 18 percent of the postsecondary sector but educate over two-thirds of all Latinx students (Excelencia in Education 2021).

The development of HSIs suggests an uneven incorporation of Latinx students into colleges and universities, consistent with assessments of US postsecondary education as "separate and unequal" (Carnevale and Strohl 2013a, 2013b; also see Baker, Klasik, and Reardon 2018). Scholars have noted that racial bias built into contemporary assessments of merit sorts students of different races into different (and differently resourced) universities (see Cottom 2017; Garcia 2019; Hamilton and Nielsen 2021; Wooten 2015). They have not, however, systematically assessed if white flight—an additional mechanism that would produce racial segregation—is occurring.

We view U.S. higher education as a racialized status system, in which student body racial composition is directly linked to perceptions of organizational prestige and quality. The postsecondary sector, to an even greater degree than K-12 education, allows selection into desired schools, creating opportunity for racial avoidance. While parents and students may not be tracking steady growth in Latinx students at a given university, HSI status is typically accompanied by public recognition—on webpages, recruiting material, news media, and grant applications. Once labeled as an HSI, a university is visibly marked as serving a racially marginalized population—and white families may flee.

In what follows, we assess whether or not obtaining an HSI designation results in a change in first-year white (as well as Asian, Black, and Latinx) student enrollment trends at four-year non-profit universities. Specifically, we ask:

- Does white (or other forms of) flight occur at four-year universities that attain the HSI designation?
- How are Latinx patterns of enrollment impacted by a university's transition to Hispanic-Serving?

We rely on organizational level data on college student enrollment from 1990 to 2019, examining patterns in the public and private four-year sectors separately. Our analyses also account for state and country level racial composition and, in supplemental analyses, admission rates (as measure of selectivity). The staggered timing of HSI designation for universities make these data ideal for event study and time trend analyses (McCrary 2007).

#### **Latinx and HSI Growth**

Most colleges and universities in the US were founded to serve affluent white students. In the mid to late 1800's, Historically Black Colleges and Universities (or HBCUs) were formed as a direct response to the exclusion of Black students from historically white colleges and universities (Du Bois 1935a; Allen and Jewell 2002; Conrad and Gasman 2015; Wooten 2015). Yet, most universities remained predominately white. It was not until the Civil Rights Movement and the development of affirmative action policies—policies that would later be challenged—that significant gains in racially marginalized student attendance at predominately white institutions (or PWIs) were made.<sup>2</sup>

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<sup>&</sup>lt;sup>2</sup> In this article, we use the term racially marginalized to refer to groups that are historically underrepresented in higher education: this includes students who identify as Black, Latinx, Native American and Alaskan Native, Native Hawaiian and other Pacific Islander, and some Southeast Asian groups. In our analyses, when we refer to Black, Latinx, Asian, or white, we are referring to *ascribed* racial categories. Readers will also notice that while we capitalize most racial categories, we have chosen not to capitalize "white." Capitalization is always a political decision. We elect to capitalize Black and Latinx, in particular, to emphasize the political agency, collective identity, and solidarity of these communities in a racist society. Although there is ongoing debate about this terminology, we use Latinx when gender is unspecified, nonbinary, or to refer to a community.

Today, the postsecondary sector as a whole is far more racially diverse than in the past. Particularly notable is a sharp increase in Latinx students. Between 1995-1996 and 2015-16, representation of Latinx students among undergraduates nearly doubled from 10.3 percent to 19.8 percent (Espinosa et al. 2019). Latinx students are now the second largest racial group enrolled at the undergraduate level (Postsecondary National Policy Institute 2020). The trend is likely to continue, as Latinx students are predicted to see the most growth among public high school graduates by 2025, and college enrollment rates for recent Latinx high school graduates are expected to just slightly surpass those of white students (Espinosa et al. 2019). While Latinx students continue to be overrepresented in community colleges and underrepresented in four-year degree granting universities, four-year universities have seen sharp increases in Latinx students over the past decade (Bauman 2017).

The groundswell of racially marginalized student attendance, however, has not remedied the racial exclusivity of most four-year PWIs. Instead, higher education is racially segregated (Carnevale and Strohl 2013b; Clotfelter 2017). We can see the clustering of Latinx students most clearly in Hispanic-Serving Institutions (or HSIs), at both two- and four-year levels. HSIs were formally recognized in 1992 and slated to receive some targeted federal appropriations. Partly in response to this financial incentive, the number of HSIs has almost tripled over the last quarter century (Vargas and Palomino 2019). These schools have absorbed increases in Latino enrollment. In 2018-2019, HSIs enrolled over 2.1 million Latinx undergraduates, an increase of about 1.6 million students (or 329 percent) since 1994-1995.

With few exceptions, most of the four-year universities that would become HSIs started out as PWIs. These schools then underwent a gradual process of conversion in the student body (see Garcia 2019; Hamilton and Nielsen 2021). Conversion from PWI to HSI, which unfolds

over time, becomes public knowledge once the HSI distinction is announced by the school and/or the school is included in published lists of Hispanic-Serving Institutions. When a school crosses the HSI threshold it "switches" from implicitly white to explicitly Hispanic-Serving.

According to the Department of Education, the primary criteria for a Hispanic-Serving Institution is having an undergraduate full-time equivalent student body that is least 25 percent Latinx. Public lists of HSIs are also based on the 25 percent threshold and are published by advocacy organizations, such as Excelencia in Education and the Hispanic Association of Colleges and Universities (or HACU).<sup>3</sup> Eligibility to apply for Title V funds based on HSI status additionally requires that not less than 50 percent of students are eligible for need-based Title IV aid. The racialization of wealth and income in the US generally ensures that sizable Latinx populations are linked to financial need in the student body (see Oliver and Shapiro 2006; Solomon and Weller 2018); however, there is a waiver process for schools that do not quite meet financial guidelines for Title V eligibility. Notably, HSI status does not require that universities have a stated mission to serve Latinx students (Vargas and Palomino 2019).

Figure 1 documents the change in the percentage of Latinx and white students at public and private four-year universities between 1990 and 2019. As is immediately visible, the percentage of students who are white (the grey lines) has declined substantially over time, while the percentage of students who are Latinx (the black lines) has increased. However, the patterns in public and private sectors are distinct.

#### [INSERT FIGURE 1 HERE]

Note that public schools have more rapidly ramped up Latinx enrollment, relative to private schools. These schools are, on average, larger as well, so the percentages of Latinx

<sup>&</sup>lt;sup>3</sup> HACU, however, is an outlier in that it uses total enrollment (including graduate and undergraduate, as well as full-time and part-time) in determining which schools have earned the HSI distinction.

students translate to larger numbers overall. Yet, this growth has been accompanied by persistent and even increased segregation across nearly three decades.

For instance, in 1990, the mean percentage of Latinx students at a public school attended by the average white student was only 3.4 percent, as compared to 18.9 percent at a public school attended by the average Latinx student. This is a gap of 15.5 percentage points. By 2019, and despite substantial growth in the Latinx population, this gap had increased by 6.1 percent, to 21.6 percentage points. Similarly, although white students declined overall, the gap between the mean percentage of white students at a public school attended by the average white student (84.4 percent) and at a school attended by the average Latinx student (60.4 percent), increased by 1.9 percentage points, for a difference of 25.9 percent in 2019.

In contrast, in the private sector, although significant gaps remain, there is some movement in the other direction. For instance, the gap between the percentage of Latinx students at a private school attended by the average Latinx vs. the average white student declined by 1.7 percentage points between 1990 and 2019, and the gap between the percentage of white students at a private school attended by the average white vs. Latinx student declined by 4.1 percentage points.

These data suggest that new populations of Latinx students have been absorbed by a particular subset four-year universities, rather than being more evenly distributed. There is persistent and increasing white-Latinx segregation over time, especially in the four-year public sector. In what follows we highlight one potential driver of the racial separation between Latinx and white students in higher education—white flight.

## White Flight in Higher Education

As Massey and Denton (1993) argue in American Apartheid: Segregation and the Making of the

Underclass, whites are often concerned about racial mixing in neighborhoods and schools because they perceive marginalized racial groups as a threat to social status. Research on K-12 schools in the US suggests that white families draw on racialized beliefs about intelligence and success to read the presence of Latinx and Black students as a marker of low organizational status (Hailey 2020; Hall and Hibel 2017; Olzak, Shanahan, and West 1994; Renzulli and Evans 2005). White families thus select into schools that are more heavily populated by whites. Although rarely recognized, a similar process may occur in universities.

As Ray (2019) argues, organizations like universities are not race neutral. Most four-year universities are implicitly coded and experienced as white spaces, given the historical record of racial exclusion in higher education (Ahmed 2012; Byrd 2017; Feagin, Vera, and Imani 1996; Lee and LaDousa 2015; Strayhorn 2013; Nenga, Alvarado, and Blyth 2015; Watkins, LaBarrie, and Appio 2010). For these organizations, "whiteness is a credential" in that it produces status, provides access to resources, and legitimizes existing stratification systems that benefit PWIs (see Ray, pg. 41). The Hispanic-Serving distinction disrupts whiteness as a credential, because it marks a university as enrolling a racially marginalized population (Garcia 2019). Although the HSI distinction is a result of demographic shifts over time, whiteness as a credential may not be lost until the university becomes explicitly coded as "for" Latinx students.

In contemporary higher education, whiteness as an organizational credential is grounded in the production of "merit" (Posselt 2016; Warikoo 2016). Merit first emerged in elite US higher education as a means to block claims for access by marginalized groups (Karabel 2005). Measures of students' excellence and deservedness, often determined via standardized testing, were created (and strategically deployed—see Price 2019; Kendi 2019) in ways that blocked applicants of color. Indeed, the SAT, on which colleges currently heavily rely, was initially

developed by a member of the Eugenics Society (Patel 2019) and has preserved a white advantage (see Freedle 2003; Santelices and Wilson 2010). White families also possess, on average, greater wealth and income to marshal in producing academic and extracurricular accomplishments readily recognized by prestigious universities.

Merit reproduces the racial order, placing white and Asian (especially East Asian) students at the top, and Latinx and Black students at the bottom. Racialized classifications attached to students are transposed onto universities, such that schools marked as serving Latinx students (or other racially marginalized students) are coded as of lower quality and status (Garcia 2019; Hamilton and Nielsen 2021; Wooten 2015). Indeed, there is currently only one HSI (i.e., the University of California-Irvine) among the top 50 universities in the nation, according to the *U.S. News and World Report*. This is likely to change over time, as there are several "emerging" HSIs among the top 50 (with Latinx enrollment between 15 and 24 percent), but currently the vast majority of HSI's are relatively less selective or open access.

White flight does not require direct racial animus to occur. That is, white students and their families do not necessarily seek PWIs with small racially marginalized populations as a result of outwardly hostile attitudes toward Latinx students. Indeed, as Warikoo's (2016) research suggests, white students typically express at least a shallow commitment to diversity and value having some non-white students on campus.

Instead, as Hailey (2020) suggests, white flight can occur when white students and families filter the racial demographics of a school through their "racial prisms." Because merit in higher education is racially coded, we argue that when students and families use this framework to make sense of a given school's quality, their views of the school become racially refracted, regardless of whether these individuals acknowledge or publicly espouse racist views. Hailey's

analyses of racialized perceptions of high schools show that not only white families, but also Asian families, are more likely to perceive majority-Black schools more negatively than majority-white schools, even when the schools are otherwise similar. Her work suggests that individuals hold implicit racial biases and cultural stereotypes that they use as informational shortcuts in making evaluations (see Amodio and Devine 2006).

In the case of HSI designation, we anticipate that racially advantaged groups are more likely to apply racial prisms that lead them to view schools newly marked as Hispanic-Serving negatively. Nothing else about the school may have changed; indeed, the status and ranking of universities are remarkably persistent and tend not to dramatically fluctuate over short periods of time. The only change is the designation of a school as "for" Latinx students, raising the salience of the student body racial composition and setting flight in motion.

### **Organizational Dynamics**

Understanding white flight in higher education requires considering not just the behavior of students and families, but also how organizations respond to pressures and constraints. To survive and flourish, universities must maintain steady revenue streams, manage their relationships with regulators, preserve legitimacy in the eyes of the public, recruit and retain students and talented instructors, and sustain their reputations relative to competition (Armstrong and Hamilton 2013; Eaton and Stevens 2020; Loss 2012; Stevens 2007; Stevens, Armstrong, and Arum 2008). Universities thus weigh both financial incentives to obtain the HSI distinction (Vargas and Palomino 2019) and racialized organizational hierarchies, which may work at cross purposes (Garcia 2019).

On one hand, universities may view the 25 percent Latinx mark as desirable to attain, given greater access to Title V federal funding and the opportunity to claim kudos for racial

diversity. As a result, leadership may, for instance, decide to recruit more heavily in Latinx areas. At the same time, university leaders are highly sensitive to rankings and racialized hierarchies that devalue schools serving substantial racially marginalized populations. Leadership may want to demonstrate some commitment to racial diversity but resist fundamentally reshaping the student body racial composition (see Berrey 2015).

In addition, structural features may shape how white flight unfolds. Public universities have grown in size over the last several decades. With reductions in state support and state regulations on tuition rates, one of the few options available to public schools is to increase tuition dollars via enrollment growth. In many states, college-eligible Latinx students comprise an ever-greater share of likely admits (Hamilton and Nielsen 2021). In contrast, private schools tend to be much smaller on average and have not dramatically expanded their size. It may thus be easier for these schools to carefully craft features of incoming classes (Stevens 2007). However, in recent years looming financial crises faced by many private colleges, outside of the most prestigious schools, may limit these schools' abilities to selectively admit different student populations (see Fain 2019).

The extent to which schools, either public or private, are (or should be) crafting the racial composition of the student body remains a volatile area of legal debate. However, private colleges, in general, may have more room to maneuver. For instance, nine states have affirmative action bans in place that are only applicable to their public postsecondary schools. Theoretically, such bans would limit public schools' abilities to select admits directly on the basis of student race. They must avoid being seen as running afoul of the Constitution's equal protection clause; this means that any consideration of student race must be narrowly tailored to meet a compelling governmental interest (typically framed as "diversity" in the student body). Private schools are

not subject to these same constraints, but postsecondary schools that receive federal funding can face legal challenges for possible violations of Title VI of the Civil Rights Act.

# **Research Hypotheses**

Comprehensive data on 4-year college enrollments by race allow us to track student enrollment patterns at HSI "switchers" between 1990 and 2019. "Switchers" are defined as schools that cross the 25 percent Latinx threshold during the time frame observed. We focus on the impact of the transition event on first-year enrollment by different racial subgroups—white students, but also Asian, Black, and Latinx students. Our choice to examine first-year students is both empirically and theoretically motivated; if flight behavior occurs, first-year student enrollments will be more responsive than total enrollments. First-year enrollments are also not confounded by factors such as transfer pathways from community colleges and delays in completion or non-completion among particular student populations. We examine public and private four-year schools separately, as dynamics in these sectors are distinct.

Below we outline our research hypotheses:

• Hypothesis 1: White and Asian first-year enrollment will decline at public universities after the transition to Hispanic-Serving, but not at private universities.

Consistent with K-12 research on white flight (Clotfelter 2004; Hall and Hibel 2017: Renzulli and Evans 2005), we predict that white flight at public switchers will be indicated by a downward shift in first-year white student enrollment after the transition. We also anticipate a downward shift in Asian student enrollment, given evidence of racialized perceptions among Asian families (Hailey 2020). At private switchers, which have more ability to tweak student body racial composition, we expect less change in first-year white and Asian student enrollment,

leveling out of enrollment, or even increases in enrollment after the transition to becoming a Hispanic-Serving institution.

• Hypothesis 2: Black student enrollment trends will not be negatively impacted by HSI designation at either public or private universities.

We anticipate that our analyses will show either no discernable pattern or an increase in first-year Black student enrollment as a result of the transition to HSI status. Prior scholarship suggests that Black students and families do not respond to racialized status threats in the same way as white and Asian students (e.g. Hailey 2020).

• Hypothesis 3: At both publics and privates, first-year Latinx enrollment will plateau after the transition to HSI.

We predict that at both publics and privates, universities will attempt to slow Latinx enrollment after the 25 percent threshold is crossed. This should be visible in an upward trend of Latinx enrollment until the transition, then a leveling out of Latinx enrollment after the transition. An artificial ceiling of Latinx enrollment may be a function of organizational efforts to obtain the financial benefits of the HSI designation, while also avoiding rankings penalties associated with racialized hierarchies.

#### Methods

Our analyses rely on student enrollment data from longitudinal annual college-level surveys of the Integrated Postsecondary Education Data System (IPEDS). We include the 724 public and 1,129 private non-profit universities reporting first-year enrollments by race and the conferral of four-year Bachelor's degrees that were eligible to enroll students with Title IV federal financial aid between 1990 and 2019. We exclude universities where first-year enrollments drop below 100 at any time during the observed period, as very small enrollments produce inaccuracy in

determining HSI status. The nearly 30-year time period on which our analyses focus reflects the historical trajectory of Hispanic-Serving Institution development in the US. Although the term was coined in 1986, HSIs were only formally recognized by the federal government in 1992 under the Higher Education Act, and in 1995 the first federal appropriations earmarked specifically for HSIs were distributed (Excelencia in Education 2014).<sup>4</sup>

#### HSI Switchers

Following typical conventions for identifying Hispanic-Serving Institutions (Garcia 2019; also see Excelencia in Education 2021), HSI "switchers" (named for the "switch" to Hispanic-Serving) are schools where the percentage of full-time undergraduate students who identify as Latinx crosses the 25 percent threshold between 1990-2019. The first year in which a school meets this threshold is considered to be the transition year. We cross-checked our list of Hispanic-Serving Institutions with those identified by Excelencia in Education, a non-profit agency focused on Latinx postsecondary success. The universities we identify as "switchers" between 1990 and 2019 are referenced in Table A1 of the Appendix.

Thirteen public universities and 7 private colleges and universities that already had HSI status in 1990 are not coded as switchers because the transition occurred earlier (see Table A1). Many of these schools could have claimed Hispanic-Serving Institution status as early as 1986, when the Hispanic Association of Colleges and Universities (HACU) was created; however, in this early period it is unclear whether or not these schools attempted to do so, or if this label was intelligible to the general public.

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<sup>&</sup>lt;sup>4</sup> Although IPEDS enrollment data are available for a few years before 1990, the meaning of a "transition" to HSI status in the years before 1990 is unclear. IPEDS enrollment data before 1990 are also more prone to error.

<sup>&</sup>lt;sup>5</sup> In a handful of cases, universities cross the 25 percent threshold, but then drop below it again. We ran a number of robustness checks designed to capture these cases—for example, only granting "switcher" status to those schools that consistently remained over the 25 percent mark for two or three years. Results remain robust and consistent with those presented in the paper.

Figure 2 displays numbers of public and private schools that switch to HSI status each year from 1990 to 2019. The figure shows that 80 public universities changed to HSI status, and 74 private colleges and universities switched to HSI status. Note that six publics and nine privates switched in 2019, the final year for which we have data. As such, our models test the effect of changes to HSI status for only 74 of the public changes and 65 of the private changes. However, we use data for all switchers to test for pre-HSI trends.

Both public and private universities transition throughout the entire 29-year period examined in this article. The dispersion of transitions is helpful, as it helps to address concerns about period effects that might be apparent if all schools transitioned in the same year or set of years. Also visible in Figure 2 are the increasing number of transitions after 2010.

# [INSERT FIGURE 2 HERE]

#### Enrollment Data

Our primary analyses rely on institutional-level annual full-time first-year enrollment data for white, Asian, Black, and Latinx students. Annual enrollment data are reported as numerical counts by institutions. We then take the log of racial group enrollment data in order to address outliers.

Because our analyses are longitudinal, consistency in how racial categories are determined is important. Prior to 2008, IPEDS provided seven "race/ethnicity" categories, but in 2008 and 2009 IPEDS began transitioning to nine new categories. Schools could either report with the old categories or the new. Starting in 2010, schools had to use the new categories for reporting purposes.

The old categories included Hispanic, White non-Hispanic, Black non-Hispanic, and Asian/Pacific Islander. The new categories include Hispanic/Latino, White, Black or African

American, and Asian. <sup>6</sup> With the new reporting guidelines, schools were instructed to "report Hispanic/Latino individuals of any race as Hispanic/Latino" and to "report race for non-Hispanic/Latino individuals only." These instructions make the old and new reporting categories quite consistent; Hispanic/Latinx is, in both cases, treated as a distinct category (separate from white and Black), and one that effectively eclipses other racial/ethnic classifications. Another change is movement of Pacific Islanders from the Asian category and into a separate Native Hawaiian and other Pacific Islander category in 2010, and the inclusion of a new two or more races category (which remains artificially small because of the reporting guidelines for Hispanic/Latino). Our analyses, however, show no distinct shifts in how schools report their data between 2008 and 2010.

When log enrollment data for a specific racial group (i.e., white, Asian, Black, or Latinx) is the dependent variable, we also include log total first-year enrollment as a control variable in our analyses. We do so as enrollment counts for specific groups are only meaningful in relation to the overall size of the first-year class. In analyses where our outcome is a share (e.g., the percentage of first-year students who identify as Latinx) this control is not included.

We do not show results for the impact of HSI transition on first-year American Indian and Alaskan Native or Native Hawaiian and other Pacific Islander student enrollment, as the numbers of these students are extremely low at most institutions. However, these students, as well as those who identify as two or more races (but not Hispanic), those whose race and ethnicity are unknown, and students labeled as "nonresident aliens" are included in total enrollment counts.

<sup>&</sup>lt;sup>6</sup> Additional old categories include: Nonresident alien, American Indian/Alaska Native, and race and ethnicity unknown. Additional new categories include: Nonresident alien, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, two or more races, and race and ethnicity unknown.

#### Additional Controls

The racial composition of a given university is related to the local and state racial composition, as most public and even most private universities pull from nearby areas. Consequently, we include the log of county and state counts of for each of the following 18-24 populations: white, Black, Hispanic, Asian, and American Indian, drawing on annual race population estimates produced by the U.S. Census Bureau in collaboration with the National Center for Health Statistics.<sup>7</sup>

Because the observations are clustered within each university, our models include a set of dichotomous variables for each university. In addition, dichotomous variables for year are included to adjust for year-to-year variation in enrollment levels.

In supplemental analyses discussed in the text, we also include university admission rates as a measure of university selectivity. HSIs tend to be moderately prestigious or less prestigious organizations (Garcia 2019). Although university prestige is fairly stable, this measure helps account for any change in prestige that might be related to the transition to Hispanic-Serving. Admisssion rate data are only available from 2001-2019, limiting the number of switchers during the period observed.

Features of Switchers and Non-Switchers

Table 1 includes demographic information for the public and private universities in our main analyses and highlights the contrast between switchers (schools that transition to HSI between 1990 and 2019) and non-switchers (schools that do not transition to HSI in this time period).

[INSERT TABLE 1 HERE]

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<sup>&</sup>lt;sup>7</sup> See <a href="https://wonder.cdc.gov/bridged-race-population.html">https://wonder.cdc.gov/bridged-race-population.html</a>.

The comparison between switchers and non-switchers shows that both public and private switchers are concentrated in the West, Southwest, and Mid-Atlantic states. Seventeen percent of private switchers are also located in the Midwest. Tracking the demographics of those regions, the average Latinx and white college age populations over the 29-year study period tend to be equivalent in the states where HSI switchers are located. The Latinx college age populations tend to be larger than the white population in the counties where HSI switchers are located. This is true for both public and private HSI switchers, reflecting that four-year institutions enroll students primarily from their surrounding regions. Table 1 also shows that public HSI switchers enroll more students overall on average than public non-switchers. In addition, with mean undergrad enrollments over 11,000, public switchers are more than five times larger than private switchers.

### Analytical Plan

Below we first address Research Question 1: Does white (or other forms of) flight occur at four-year universities that attain the HSI designation? To do so, we conduct two methods of longitudinal school fixed effects analyses: event studies and time break analyses. We adapt both methods from those employed by McCrary (2007) in his study of the racial composition of police forces following desegregation orders (also see LaFortune, Rothstein, and Schanzenbach 2018; Travis 2019). Combined, these methods allow us to determine if the switch to HSI status is associated with changes in race-specific first-year enrollment. Our general methodological approach also follows Morgan and Winship's (2007) framework for longitudinal data analysis.

To test Hypotheses 1, we use both methods to assess the impact of making the transition to Hispanic-Serving between 1990-2019 on first-year white and Asian enrollment. For comparison, we test Hypothesis 2 by examining how the transition shapes first-year Black

enrollment. We treat public and private sector trends separately. These analyses allow us to compare before-transition and after-transition trends in white versus other first-year enrollments.

We then employ both methods to test Hypothesis 3. We assess the impact of the HSI transition on first-year Latinx enrollment, for public and private sectors separately. These enrollment analyses focus on the *absolute number* of first-year Latinx students, controlling for total first-year enrollment, and mirroring analyses for Hypotheses 1 and 2.

In a final set of analyses, we focus on how first-year enrollment patterns by race shape the percentage of Latinx students in the first-year class. This set of analyses tells us how the *share* of Latinx students in the incoming class may change after the HSI transition. It is shaped not only by Latinx enrollment patterns, but the enrollment patterns of other groups.

Our first event study method estimates time trends by calculating effects of dummy variables indicating that an observation was made j number of years before or after an "event" in which a school switches from non-HSI to HSI status. Our event study models use an ordinary least squares equation to estimate an effect  $\theta_j$  on log first-year enrollments for every dummy variable  $D_{i,t}^j$ :

$$\Upsilon_{i,t} = \sum_{j=b}^{a} \theta_j D_{i,t}^j + \mu_i + \lambda_t + \gamma z_{i,t} + e_{i,t}$$

In the formula,  $Y_{i,t}$  represents the log first-year enrollment for a given race for college i at time t. College-level fixed effects are represented by  $\mu_i$ .  $z_{i,t}$  represents logged time-variant covariates such as total first-year enrollment, county 18 to 24 age population by race, and state 18 to 24 age population by race. Year fixed effects are represented by  $\lambda_t$ . Unobserved idiosyncratic time varying factors are indicated by  $e_{i,t}$ .

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 $D_{i,t}^{j}$  represents the dummy variables for leads and lags of an observation before and after a school switches to HSI. For example,  $D_{i,t}^{-2}$  would be equal to one for observations two years before the switch to HSI status. For all observations not two years before the switch to HSI status,  $D_{i,t}^{-2}$  would be equal to zero. We bin observations into dummy variables for less than or equal to 10 years before (b=-10 years before limit) or more than or equal to 10 years after a change to HSI status (a=10 years after limit). Dummy estimates outside of these upper and lower bounds provide little information because few schools have enrollment data for that long before or after changing to HSI status. We then present the event study estimates as plots of the marginal estimates of log enrollments for each dummy variable with covariates held constant at their means. Stata code for all of these procedures is available in our replication package on GitHub (link masked for anonymity).

Our principal objective for the event study plots is to assess *when* enrollment changes occur among schools that switch from non-HSI to HSI status. We particularly want to check for pre-trends in enrollment changes among these schools that might create spurious appearances of effects on enrollments if they continue after HSI status change. As such, we restrict the event study models to include only schools that switch to HSI status at some point in the study period. This obviates fraught methodological choices about how to treat observations of schools that never switch (Travis 2019) or had already crossed the 25 percent threshold prior to 1990.

Our second method also analyzes changes in enrollments within school over time with the same battery of control variables and school fixed effects. But this trend break model summarizes more clearly the size and statistical significance of the effect of HSI status on rates of change in enrollments by race.<sup>8</sup> This approach also allows us to easily compare switcher-only

<sup>&</sup>lt;sup>8</sup> The model is derived from McCrary (2007) but also resembles Travis (2019).

estimates to estimates that include non-switcher schools as a counterfactual. Our initial counterfactual model adds observations for non-switchers in years that Latinx students make up 15 percent or more of the undergraduate student body. One appeal of this counterfactual is that it flows from the definition of schools that are "emerging" HSIs but had not gained HSI status by 2019. For an alternative counterfactual, we add all schools to the model.

We use two iterations of the switcher-only and counterfactual models. The first iteration is given by the following equation:

$$Y_{i,t} = \beta_a \cdot a_{i,t} + \beta_b \cdot b_{i,t} + \mu_i + \lambda_t + \gamma \cdot z_{i,t} + e_{i,t}$$

In this model,  $Y_{i,t}$  again represents the log first-year enrollment for a given race for college i at time t. We then estimate a coefficient  $\beta_a$  for the effect of an observation being a continuous integer  $a_{i,t}$ , ranging from 0 to 28 and measuring years after a school switches to HSI status.  $\beta_a$  thus estimates the log change in first-year enrollment for every year that elapses after HSI status. The value of  $a_{i,t}$  is zero for all observations before a school changes to HSI status. In models that include non-switchers as a counterfactual,  $a_{i,t}$  is coded as zero for schools that never change to HSI status.

The first iterations of our models also estimate  $\beta_b$  as the effect of an observation being a continuous integer  $b_{i,t}$  measuring years elapsing before a school's switch to HSI status. For example, an observation 10 years before HSI status would have a value  $b_{i,t}$ = -10 with  $b_{i,t}$  increasing and approaching zero as it gets closer to the first year of HSI status. The value of  $b_{i,t}$  is zero for all observations for schools that never change to HSI status and zero for all observations after a school meets the mark for HSI status. Together  $\beta_a$  and  $\beta_b$  estimate the annual rate of change after and before HSI status, allowing us to compare before and after time trends.

The second iteration of the trend break model tests the *difference* between the after and before HSI time trends. This iteration of the model simply replaces the before HSI year variable  $b_{i,t}$  with a continuous variable  $j_{i,t}$  that measures the overall number of years before *and* after HSI status:

$$Y_{i,t} = \beta_a \cdot a_{i,t} + v \cdot j_{i,t} + \mu_i + \lambda_t + \gamma \cdot z_{i,t} + e_{i,t}$$

For example, if an observation is 5 years before HSI status  $j_{i,t}$  is -5. If an observation is 3 years after HSI status  $j_{i,t}$  is 3. In the case of schools that never switch to HSI status,  $j_{i,t}$  is always zero. The  $j_{i,t}$  variable is the same variable used to create the  $D_{i,t}^j$  dummy variables for our event studies. But in this model,  $j_{i,t}$  is continuous. Replacing the before HSI year variable  $b_{i,t}$  with  $j_{i,t}$  controls for the overall time trend around a change to HSI status in the dependent enrollment variable. The  $\beta_a$  coefficient for the years after HSI status thus measures the *difference* between the average annual rate of change after and before HSI status.

## **Results**

White, Asian, and Black First-year Enrollment

Consistent with Hypothesis 1, white first-year enrollments at public universities are steady in the years before a change to HSI status and then fall steeply. Asian enrollments also decline moderately at public universities. As we further predicted in Hypothesis 1, however, there is no meaningful change in white or Asian enrollments at private institutions after they change to HSI status. We also find support for Hypothesis 2 that Black enrollments will not decline after changes HSI status.

Event studies contrast an abrupt decline in white enrollments at public universities with trends in Black enrollments and trends at private colleges. Figure 3 presents event study estimates with plots of regression adjusted mean log first-year enrollment by year for 10 years

before and 10 years after the change to HSI status. As detailed above, the regression adjustments use school fixed effects, year effects, and control variables for the college age population by race in each school's state and county. The regression adjustments also control for total first-year enrollment to account for the possibility that enrollment trends by race could stem from shifts in a school's overall enrollment. Left hand plots are for public universities while right hand plots are for private colleges and universities.

## [INSERT FIGURE 3 HERE]

The upper left hand plot of Figure 3 shows that regression adjusted mean log enrollments of white first-year at public universities are flat around 6.2 for the 10 years prior to HSI status. Log white first-year enrollments then fall to 6.1 in the five years after HSI status before leveling out. This .1 decline in log white enrollment is equivalent to a 10 percent drop. If we exponentiate the log white first-year measure, enrollments are around 493 students prior to HSI status and 446 after HSI status. White first-year enrollments are estimated to fall further 10 or more years after the change to HSI status. These estimates should be viewed cautiously, however, because only 35 percent of public university switchers change to HSI status more than 10 years before the end of the study period. Figure 3 shows that Asian first-year enrollments also decline approximately 10 percent after HSI status at public universities, but with overlap in the confidence intervals for years before and after HSI status.

The right hand column of Figure 3 also supports Hypothesis 1 by showing no comparable change in white or Asian first-year enrollments at private institutions after HSI status. This is consistent with our argument that private colleges will be more effective at tailoring outreach and recruitment to maintain white and Asian enrollments after HSI status.

Hypothesis 2 is supported by the bottom left panel of Figure 3 which shows steady increases in Black first-year enrollments after HSI status at public universities. This fits our argument that white students particularly seek to distance themselves from Latinx students to maintain their position in the racial status hierarchy.

We find further evidence of white flight when we re-estimate event study models with a control for admission rates. Recall that these analyses only include observations between 2001 and 2019 and thus restrict the switcher sample further. Figure 4 shows that adding admission rates yields consistent results for white flight at public universities. Contra our expectations, however, we also see a discrete shift to white flight after HSI status at *private* schools. This is entirely a function of restricting the sample to 2001 onwards. Event study estimates for only years after 2001, but without the admissions rate control, show equivalent results. We will return to this issue shortly, reporting trend break estimates with and without admissions rate controls. The discrete shift in white enrollment after HSI status at private switchers after 2001, however, suggests that private university enrollment management may no longer insulate private HSIs from white flight as it appears to have done in the 1990s.

## [INSERT FIGURE 4 HERE]

We also see considerably wider confidence intervals for estimated white and Asian enrollments more than five years after the change to HSI status at public institutions in Figure 4. This reflects a particularly large proportional reduction of the sample of schools that switched more than 5 to 10 years before 2019. Estimates for enrollments from years 5 to 10 after HSI status are thus identified using a very small subsample of schools and should be treated with caution. Nevertheless, Figure 4 shows consistent, albeit fuzzier, shifts in enrollment trends for

white and Asian students around changes to HSI status. We evaluate this further with trend break estimates. Black enrollments still show no comparable shift around HSI status.

Trend break models confirm Hypotheses 1 and 2. We present the results of six different models in Table 2. The first three models estimate the before HSI status annual trend in log first-year enrollments and the after HSI status rate trend to compare the two. Models four through six estimate only the after HSI status rate of change while controlling for the overall rate of change across all years before and after HSI status. Inclusion of this control means that the after HSI status trend variable estimates the difference in the before and after HSI status trends. The first and fourth models include only schools that switch HSI status. The second and fifth "counterfactual" models include observations for schools that do not switch in years when Latinx students make up more than 15 percent of undergraduate enrollments. The third and sixth "all" models include all non-switcher observations as a counterfactual.

### [INSERT TABLE 2 HERE]

The white first-year panel of Table 2 supports Hypothesis 1 that white first-year enrollments will be reduced by changes to HSI status at public universities. In the white first-year panel, the first model for switcher-only schools reports a nearly flat before-HSI trend in log enrollment of -.005 compared to a negative after HSI status white enrollment decline of -.026 or 2.6 percent annually—a difference of -.021, or roughly -2 percent in the annual rate of change in white first-year enrollment. When we add emergent HSI schools to the second and fifth counterfactual models, the sample grows from 80 to 213 schools and observations increase from 2,006 to 2,579. These models estimate a positive before trend of .009 in white enrollment and an equivalent trend difference as the switcher-only models. When we add all non-switcher schools to the third iteration of the model, the sample is increased to 724 public universities and 17,479

observations. The all-school model 3 estimates a before-HSI trend of -.007, suggesting that white enrollment trends grow more slowly before a change in HSI status than at schools that do not switch to HSI status. Model 6 shows a comparable difference in before- and after-HSI trends, at -.023, a just over 2 percent greater rate of rate of decline in first-year white enrollment.

Together, these results indicate that white first-year enrollment declines just over two percent more annually after the HSI transition, net of other factors. This aligns with event study plots that show a ten percent decline in white enrollment in the first five years after HSI status before a plateau in white enrollment, which then declines again at 10 years after the transition.

The Asian enrollment panel of Table 2 bolsters Hypothesis 1 further. The switcher-only model 1 shows a -.016 change in log Asian enrollment per year before HSI status and a -.030 change in log Asian enrollment per year after HSI status. Consistent with this shift, the model 4 switcher-only model estimates a -.013 difference in the change in log Asian enrollment per year after HSI status. The counterfactual and all-school models yield equivalent results. But the switcher-only and counterfactual difference estimates are just above a .05 confidence threshold.

The Black public university enrollment panel of Table 2 echoes support from the event studies for Hypothesis 2, but with some important caveats. First, the switcher-only model 1 estimates that Black enrollment is almost flat prior to HSI status. This is a departure from the event study estimates which show increasing Black enrollment prior to HSI status. Additionally, the after HSI trend in log Black enrollment is estimated to be -.012 in model 1, a difference of -.011 as shown in model 4. The counterfactual models 2 and 5 show a barely perceptible shift, and models 3 and 6 a negative shift, in Black enrollment trends.

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<sup>&</sup>lt;sup>9</sup> The slightly differing results for the Black enrollment event study and trend break analyses are related to the fact that event studies models (but not trend break models) bin observations 10 years out on either side of the transition. Differences in estimates between the two sets of analyses suggest that schools with observations more than 10 years

With few exceptions (only in the all-school models), however, estimates are above the confidence threshold and thus do not indicate a significant difference in Black enrollments after the transition to HSI. Recall also that event study estimates show *no discrete shift* of Black enrollment timed around HSI status. Nevertheless, the negative difference in Black enrollment trends raises questions about whether HSI status may contribute indirectly to downstream trends in Black enrollment at public universities.

As with the event studies, trend break estimates for private institutions, as presented in Table 3, show no comparable signs of white or Asian flight. There are similar downward trends in white enrollment both before and after HSI transition in models 1 through 3 of the white enrollment panel of Table 3, and thus switcher-only model 4 estimates *no difference* in the change of log white enrollment per year after HSI status. In the counterfactual model 5, the white enrollment rate of change actually increases slightly after HSI status, and there is no significant difference in rates of enrollment after HSI status in models 5 and 6. Similarly, the Asian enrollment private school panel shows no consistent or statistically significant differences in Asian enrollment trends across any of the models.

## [INSERT TABLE 3 HERE]

As we saw with publics, we again see a decline in the Black enrollment trend after HSI status, this time in model 1—but again estimates for the difference in models 4 through 6 are above the confidence threshold. The private event study models also show no discrete shift in Black enrollment around HSI status at private institutions. Still, the negative trend raises questions about downstream effects on Black enrollments from enrollment management or other changes associated with HSI status at private institutions.

before and more than 10 years after HSI status have relatively high Black enrollment far before the transition and relatively low Black enrollment far after the transition, compared to younger HSIs.

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The decline in white first-year enrollments after HSI status is not a consequence of any change in university prestige from admissions selectivity. Table 4 adds the admissions rate control to the trend break models for public universities. As with Figure 4, this reduces the sample to 2001 onward, the only years for which admission rate data is available. As in Figure 4, the estimated shift to white flight weakens in Table 4 relative to the estimates without admissions controls in Table 2. HSI status, however, maintains a strong and statistically significant association with white flight, and the slight weakening in the estimate is entirely due to the change in the sample period and the reduction of the sample size.

## [INSERT TABLE 4 HERE]

For example, the white switcher-only model 4 in Table 4 estimates a -.014 annual rate of decline in log white enrollment after HSI status, compared to the -.021 estimate in model 4 of Table 2. In Table A2 of the Appendix, however, model 4 estimates a -.009 rate of decline in log white enrollment when we restrict the sample to years after 2001 but do not control for admissions—suggesting that, if anything, controlling for admissions rate boosts evidence of white flight. Models 5 and 6 in Table 4 also show no attenuation in HSI association with white enrollment decline from admissions controls relative to models 5 and 6 without admissions controls in Table A2.

The relationship between Asian enrollment decline and HSI status is, however, attenuated by admissions controls in Table 4, relative to estimates for 2001 onward without admissions controls. For instance, we see stronger and mostly significant differences in the rates of annual change for Asian enrollment in models 4 through 6 in Table A2, which parallel the years of the admission control analyses presented in Table 4 but omit the admission control. This suggests that unlike white enrollment decline associated with HSI status, Asian enrollment decline may be

partly, but not entirely, explained by Asian families' increasing avoidance of less selective schools—schools that are also more likely to be HSIs.

The Black enrollment panel of Table 4 shows stronger differences with the inclusion of admissions controls, relative to the initial results presented in Table 2. Appendix Table A2 indicates that this is largely a function of restricting the sample to 2001 onwards, as results for the same time period but without the admissions control are very similar and consistent. Without a meaningful shift in Black enrollment trends in Figure 4, however, changes in Black student enrollment after HSI status appear not to be linked directly to the racialized designation itself, but rather dynamics that may occur at HSIs at some later point in time.

## [INSERT TABLE 4 HERE]

Private sector trend break models for 2001 onwards are consistent with the event study models in Figure 4. Table 5 shows negative shifts in the log white first-year enrollment of ranging between -.022 (model 5) and -.031 (model 4). The table also shows downward effects on log Asian enrollment of between -.017 (model 5) and -.040 (model 4). Shifts in Black enrollment trends are considerably weaker from -.004 (model 4) and -.009 (model 5) and are not significant in any of the models. Appendix Table A3 provides equivalent results from estimates that restrict the private sector sample to 2001 onward, without controlling for admissions. Trend break results for 2001 onward suggest that, counter to Hypothesis 1, white and Asian flight is occurring private HSIs—if only in this later period.

#### [INSERT TABLE 5 HERE]

Latinx First-Year Enrollment

Analyses of Latinx enrollments around changes to HSI status confirm our expectation in Hypothesis 3 that schools will not increase Latinx enrollment substantially after passing the HSI status enrollment threshold. Event studies in Figure 5 show that after increasing in the lead up to HSI status, Latinx enrollments plateau at public universities net of total enrollments, and actually decline at private universities. This fits our argument that outreach and recruitment for Latinx students is only expanded to the point needed to attain HSI status.

#### [INSERT FIGURE 5 HERE]

Trend break results in Table 6 mostly reinforce the event study findings in support of Hypothesis 3. Model 1 shows that following moderate increases of Latinx enrollments of .022 or 2.2 percent annually before HSI status, the trend in Latinx enrollment falls to .008 after HSI status at public universities. Public university switcher-only model 4 confirms that the Latinx log enrollment trend actually declines by -.013 or 1.3 percent annually after Hispanic-Serving status is reached. All school models 3 and 6 show a similar significant and negative .013 decline in the rate of change. Public university counterfactual models 2 and 5, however, show only a .001 decline in the log Latinx enrollment trend.

#### [INSERT TABLE 6 HERE]

Among private universities, Table 6 shows a consistent and significant reduction in the Latinx enrollment growth trend. Model 1 shows an annual increase in Latinx first-year enrollment of .044 or 4.4 percent before HSI status followed by an annual increase of .010 or 1 percent. The difference in the annual enrollment trend change ranges from -.015 or -1.5 percent (model 5) to -.035 or -3.5 percent annually (models 4 and 6). Appendix Tables A4 and A5 show that the moderating of Latinx enrollment growth after HSI status is only slightly attenuated by controlling for admissions.

Tracking the plateau of total Latinx first-year enrollment net of total enrollment, Figure 6 shows that the percent of first-year students who are Latinx increases only slowly after HSI

status at public universities. The Latinx share remains flat at private universities after HSI status, as Latinx first-year enrollment declines follow overall enrollment declines at those schools. Note, the share of first-years who are Latinx tends to surpass 27 percent in the year of HSI status change as higher shares of Latinx first-years are necessary to meet the HSI threshold due to lower shares of Latinx students among sophomores, juniors, and seniors.

## [INSERT FIGURE 6 HERE]

#### **Discussion and Conclusion**

Our analyses indicate that white flight is not just a K-12 phenomenon; it also occurs in higher education. We utilized nearly 30 years of longitudinal annual college-level surveys of the Integrated Postsecondary Education Data System (IPEDS) to determine how achieving the distinction of Hispanic-Serving Institution (or HSI) impacts race-specific first-year enrollments at four-year universities in the United States. The transition to HSI offers a natural experiment to identify flight behaviors among racially privileged populations. We use event studies and trend break analyses that allow us to test for statistically significant changes in race-specific first-year enrollment after HSI designation in both the public and private sectors and to map out this change over time.

Our results mostly confirm Hypothesis 1: Transitioning to HSI status leads to reduced first-year white and Asian enrollment at public universities, as predicted; however, we also found evidence of white and (to a lesser extent) Asian flight at private universities in the period after 2001. When these schools move from implicitly white spaces, where whiteness is a credential producing status and access to resources, to Hispanic-Serving schools marked as serving a racially marginalized student body, whiteness as a credential is disrupted. When a public

university—or in more recent decades, a private college or university—is explicitly coded as "for" Latinx students, white and Asian students and their families flee.

These findings are consistent with a large body of K-12 research indicating that white (and often Asian) families draw on racialized beliefs about intelligence and success that lead them to view schools serving Black and Latinx students negatively—even when other markers of school quality do not support such conclusions (Hailey 2020; Hall and Hibel 2017; Olzak, Shanahan, and West 1994; Renzulli and Evans 2005). Perceptions of white and Asian families may be refracted through "racial prisms" (Hailey 2020) that center merit and lead students and parents to see a public HSI as less desirable relative to non-HSIs. Indeed, merit in higher education is racially coded, such that schools that are heavily Latinx and/or Black are viewed as lower quality, and schools that are more heavily white and/or Asian are viewed as higher quality (Garcia 2019; Hamilton and Nielsen 2021; Wooten 2015).

Why would flight occur in the public sector but not the private—until more recently? Understanding the racialized enrollment behavior of students and families requires also examining organizational responses (see Eaton and Stevens 2020; Stevens, Armstrong, and Arum 2008). Our analyses provide evidence of fairly aggressive efforts, especially on the part of private universities, to manage the racial composition of their student bodies. Yet, especially in the last decade, severe financial challenges make it impossible for most private schools to pick racially advantaged families over others. Many need any students they can get. Indeed, a 2019 report by Boston startup Edmit found that around a third of private four-year colleges are facing a financial crisis that might force a merger or closure—a situation only made worse by COVID-19 (Carey 2020; Fain 2019). Under these conditions, schools that can attract Latinx students will, while also likely losing some potential white and Asian students to flight.

As anticipated by Hypothesis 2, there was no similar downward shift among the Black first-year student population *as a direct result of the change to HSI status* in either sector. Event study models do not show a discrete trend shift around the transition. This is not surprising, as the racial prisms through which Black students and families filter their perceptions of universities are less likely to be confounded by such racial biases. Trend break analyses did reveal, however, that many years after the transition, Hispanic-Serving public and private schools may struggle to keep Black students.

The later decline in Black enrollment at HSIs may be, in part, a unique feature of the small subset of schools that transitioned early enough to provide predictions for Black enrollment far from transition year. Hispanic-Serving Institutions (especially majority-Latinx HSIs) can be, like predominately white institutions, hostile and discriminatory to Black students (Abrica, Garcia-Louis, and Gallaway 2020; Lu and Newton 2019; Pirtle 2021). On these HSI campuses, Black students are likely to be a hyper-visible numerical minority and may experience anti-Blackness and a lack of solidarity from their Latinx peers. Future research is needed to determine if, over time, Hispanic-Serving Institutions become less attractive and supportive options for Black students.

Our results also support Hypothesis 3, as Latinx enrollment patterns plateau at both public and private universities after the HSI transition. Evidence of an artificial ceiling for Latinx students is troubling, especially considering that Latinx students remain highly underrepresented in the four-year sector. Schools appear to be tinkering with racial enrollments, aiming to just tip over to HSI status, but not to continue growing Latinx enrollment. Despite these efforts, over time Latinx students slowly comprise greater proportions of the first-year class at publics HSIs after the transition. This is due primarily to the flight behaviors of white and Asian students. In

contrast, at private HSIs, efforts to control flight and hold Latinx enrollment steady in earlier periods, and, in later periods, declining Latinx and overall enrollment, plateau the share of the first-year class at a few percentage points over the 25 percent threshold.

# **Drivers of Postsecondary Racial Segregation**

We began the article with a figure displaying increasing racial segregation for Latinx and white students at public four-year universities during the 29-year period of observation. As the number of Latinx students entering four-year public postsecondary education has swelled, the likelihood of these students entering public universities with their white peers has decreased. Instead, Latinx students are, to a growing extent, attending with other students like themselves.

Our findings suggest that a gradually more segregated public postsecondary system is not just the result of Latinx students "self-selecting" into Hispanic-Serving Institutions. Indeed, the action at public switchers is primarily driven by white and Asian students fleeing, rather than continued and sharp increases in Latinx students at HSI transitioned schools. Latinx student preferences are not the driving force behind racial segregation.

Certainly, racially biased measures of merit play a key role in sorting of Latinx and white students into different postsecondary schools (Garcia 2019; Hamilton and Nielsen 2021). However, among the moderately to less prestigious four-year universities where Latinx students and white students are more likely to intersect, university selectivity cannot explain increasing segregation—especially for white and Latinx students. This is, in part, because university status is fairly stable over time, and most HSIs remain in the same prestige range after transition.

As the four-year public sector becomes more racially diverse, and at a more rapid clip than the four-year private sector, white flight from HSIs is likely a driver of white-Latinx segregation. Increasing access accompanied by increasing segregation has long been a way in

which US education has maintained persistent and troubling racial divides across levels of education. For instance, efforts to preserve racially homogenous schools and school districts and efforts to maintain tracking systems internal to schools that separate racially marginalized students from their privileged peers are key mechanisms for producing racial inequality (Lewis and Diamond 2015; Owens 2017; Rothstein 2015; Tyson 2011).

Segregation is a precursor for the uneven distribution of resources. It provides both legitimation and the logistical means to channel financial and material goods to organizations on the basis of student racial composition. These resources include student tuition (including higher rates for non-residents), donations, endowment returns, corporate sponsorships, and grants, along with federal and state support (Hamilton and Nielsen 2021). Limited resources can lead to inadequate educational supports for marginalized students. These inequities in turn fuel racialized notions of "quality" students and universities—setting in motion flight and racialized sorting. Drawing on Du Bois (1898, 1935a), Conwell (2016) describes this kind of process as a racialized feedback loop blocking racially marginalized students from accessing the educational, social, and cultural capital needed for mobility.

Du Bois (1935a) was a vocal supporter of *voluntarily and protectively* segregated education, driven by Black students and families, when integration meant discrimination and harm at the hands of white administrators, teachers, and peers (see Conwell 2016). Historically Black Colleges and Universities (or HBCUs) were explicitly created with mission of supporting Black communities and are one example of protective segregation. However, the development of Hispanic-Serving Institutions is a very different phenomenon; HSI status itself is primarily numerical and may have more to do with the ability to compete for racialized federal funding

than actually serving Latinx students (see Vargas and Palomino 2019). The segregation that accelerates after transition is in no small part imposed, rather than voluntary.

Our analyses focus on Latinx students, as the entry of these students into US higher education has been relatively recent, rapid, and without the same longer standing history of segregation as faced by Black college students. However, we might expect to see flight behaviors at public universities whenever the presence of racially marginalized populations is made explicit, visible, and is described as a central characteristic of the university. As Holland and Ford (2021) find, relatively less selective schools with more racially diverse bodies tend to *deemphasize* their racially marginalized student bodies on webpages and other media materials, perhaps in an effort to avoid the same kind of racial avoidance behaviors that Hispanic-Serving Institutions face. Only elite schools with small traditionally underrepresented populations lean toward emphasizing racial diversity; because prestige is so heavily coded as "white" (and/or "Asian"), these schools often work against appearing too exclusive.

### **Policy Implications**

White flight in higher education is direct result of the racialized status system, in which university access to prestige is linked to student race. Racially advantaged families and students use student body racial composition to read institutional prestige—fleeing contexts where concentrations of marginalized students are viewed as signaling lower status. Policy efforts should therefore be directed at disrupting the notion that Black and Latinx students are lower-quality students who go to lower-quality universities.

The SAT is at the heart of colorblind merit. The SAT and ACT are poor predictors of college performance (see Allensworth and Clark 2020; Aguinis, Culpepper, and Pierce 2016; Hiss and Franks 2014) but have an oversized impact on the assessment of student quality. Many

schools have recently moved to "test-optional" or "test-flexible" approaches, which allow but do not require test scores as part of admissions. However, this approach still benefits those who can afford to take and perform well on the test. There are a number of other ways to assess candidates that may not be as problematic for racially marginalized applicants. These include high school GPA, class rank, transcripts (with attention to course offerings available in the school), essays, samples of class papers and projects, and letters from teachers and mentors.

Racial affirmative action bans constrain more prestigious public universities from enrolling larger shares of racially marginalized students. Ironically, our results suggest violations of affirmative action bans are regularly occurring when universities hold historically underrepresented groups at artificial limits. Yet, affirmative action bans are rooted in Civil Rights era backlash and have been primarily used to support racially advantaged groups (see Moore 2018). These bans have not motivated the eradication of practices and policies that are in effect affirmative action for whites, such as legacy, children of faculty and staff, and recruited athlete admission preferences (Arcidiacono, Kinsler, and Ransom 2019). At least in some states, removing affirmative action bans, as well as addressing existing policies that advantage white students, may create new avenues for combatting racial segregation—helping to push back against the notion that "the best" schools are majority white.

Ranking systems have a major role to play in the production of racialized merit.

University leadership tends to modify policy and practice based on the extent to which doing so will contribute to rank (Espeland and Sauder 2016). Currently, the *U.S. News* values criteria that disadvantage schools serving racially disadvantaged populations. These criteria include undergraduate academic reputation (determined via a survey of university leaders overwhelmingly at predominately white universities), student SAT/ACT scores, school

acceptance rates, first-year retention and completion rates (both of which are lower for marginalized populations), faculty resources (higher at better-resourced universities), and the alumni-giving rate. If enough universities refused to report data to the *U.S. News* until formulas considered student racial composition, change would occur. Formulas that reward enrolling racially marginalized populations could motivate more equitable admissions processes and shape opinion about what the student body at a high-status university looks like.

In the last quarter of the 20<sup>th</sup> century, public funding for higher education declined—just as Black and Latinx students gained greater access to four-year universities (Hamilton and Nielsen 2021). The turn to funding higher education through individual debt and private support puts organizations that serve marginalized students at a disadvantage for resource accumulation. In U.S. higher education, financial resources are directly linked to prestige (Clotfelter 2017). One way to break the link between race and prestige is to provide substantial federal and state support for enrolling racially and economically marginalized student populations. Financially valuing the important work of serving underrepresented populations will provide universities with more resources to compete for status and may help to redefine the goals of high-status postsecondary institutions.

Racially marginalized communities have long viewed higher education as key to social and economic mobility (see Cottom 2017; Du Bois 1903, 1935b). But the uneven incorporation of underrepresented students into the U.S. postsecondary system threatens this promise. As we have shown, Latinx students have broken into the four-year public postsecondary sector only to face increasing segregation and white flight from the universities that they attend. Racialized avoidance of public Hispanic-Serving Institutions highlights the costs of allowing postsecondary education to remain a racialized status system.

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**Table 1. Demographic Characteristics for Four-Year Universities in the Analyses** 

		HSI Switch	er Schools			Non-Switch	er Schools	
	Pul	olic	Priv	vate Pub		lic	Priva	nte
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Total enrollment	11155	8135	1920	7760	2274	2788	2,276	2,789
First year HSI	2009.6	8.04	7.69	7.87				
Census region								
Northeast	.01	.10	.15	.07	.11	.32	.11	.32
Mid-Atlantic	.18	.38	.42	.18	.21	.41	.21	.41
South	.07	.26	.25	.29	.25	.43	.25	.43
Midwest	.04	.21	.38	.25	.31	.46	.31	.46
Southwest	.24	.43	.40	.08	.04	.20	.04	.20
West	.45	.50	.46	.12	.08	.26	.08	.26
Admissions rate (%)	64.73	17.5	16.12	69.73	64.37	19.61	64.37	19.62
% undergrad Latinx	22.5	11.07	10.56	6.22	5.04	7.3	4.96	6.83
Fulltime first-year enrolli	ment							
White	758	759	154	1013	330	338	330	338
Black	160	160	80	175	51	104	51	104
Latinx	491	482	89	119	32	62	31	61
Asian	268	379	24	80	27	71	27	71
County population age 18	8-24							
White	56,620	63,670	69,580	71,670	23,640	31,180	38,290	52,080
Black	21,670	32,620	34,010	42,930	7,740	15,600	13,880	25,440
Hispanic	69,590	128,880	86,280	136,440	10,500	49,320	28,100	98,920
Asian	17,940	31,130	19,510	31,980	3,170	11,870	7,830	23,140
American Indian	810	1,010	650	880	290	760	350	720

State population age 18	-24							
White	874,470	426,450	895,450	356,370	507,260	320,930	576,430	321,300
Black	214,860	113,670	231,240	96,280	132,680	110,130	140,570	105,290
Hispanic	813,150	645,800	751,420	614,390	146,590	292,610	167,710	321,470
Asian	203,890	198,730	182,020	184,410	39,230	66,860	50,820	85,630
American Indian	13,570	9,520	10,490	8,400	5,510	6,960	4,930	5,830
# of schools	8	0	7-	4	66	53	1,1	32
# of schools/years	2,0	06	1,8	384	15,0	562	25,	112

Table 2. White, Asian, and Black Trend Break Analyses, Public Sector 1990-2019

White enrollment						
	(1) Switchers	(2) Counter-	(3) All	(4) Switchers	(5) Counter-	(6) All
D (	0.005	factual	0.005**		factual	
Before years	-0.005	0.009	-0.007**			
	(0.008)	(0.006)	(0.002)			
After years	-0.026***	-0.015**	-0.030***	-0.021***	-0.024***	-0.023***
•	(0.007)	(0.005)	(0.004)	(0.004)	(0.005)	(0.004)
Overall trend				-0.005	0.009	-0.007**
o veran nena				(0.008)	(0.006)	(0.002)
$R^2$	0.58	0.60	0.48	0.58	0.60	0.48
Schools	80	213	724	80	213	724
N N	2,006	2,579	17,479	2,006	2,579	17,479
Asian enrollment	2,000	2,379	17,179	2,000	2,577	17,175
1 Islan cm onnent	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
	Switchers	factual	All	Switchers	factual	All
Before years	-0.016	-0.003	-0.001			
	(0.009)	(0.008)	(0.003)			
After years	-0.030**	-0.019*	-0.019**	-0.013	-0.015	-0.018**
•	(0.009)	(0.009)	(0.006)	(0.007)	(0.009)	(0.007)
Overall trend				-0.016	-0.003	-0.001
o vermi u enu				(0.009)	(0.008)	(0.003)
$R^2$	0.61	0.47	0.38	0.61	0.47	0.38
Schools	80	213	719	80	213	719
N	1,992	2,539	16,674	1,992	2,539	16,674
Black enrollment	1,552	2,555	10,071	1,552	2,000	10,071
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
	2	factual	1 211	2	factual	1 111
Before years	-0.001	0.008	-0.007*		1440 04441	
Dololo y cult	(0.012)	(0.008)	(0.003)			
After years	-0.012	-0.000	-0.021**	-0.011	-0.008	-0.014
Titter years	(0.012)	(0.009)	(0.007)	(0.008)	(0.011)	(0.008)
Oxyonall turing				0.001	0.000	0.007*
Overall trend				-0.001 (0.012)	0.008 (0.008)	-0.007* (0.003)
$R^2$	0.55	0.44	0.47	0.55	0.44	0.47
Schools	80	213	723	80	213	723
N	1,999	2,562	17,307	1,999	2,562	17,307

Notes: \*\*\* p < .001, \*\* p < .01, \*p < .05. Models include controls for total first-year enrollment, county 18 to 24 population by race, and state 18 to 24 population by race.

Table 3. White, Asian, and Black Trend Break Analyses, Private Sector 1990-2019

White enrollment			•	,		
	(1) Switchers	(2) Counter-	(3) All	(4) Switchers	(5) Counter-	(6) All
		factual			factual	
Before years	-0.037*	-0.013*	-0.016***			
	(0.016)	(0.006)	(0.003)			
After years	-0.037*	-0.005	-0.018**	0.000	0.009	-0.002
	(0.016)	(0.008)	(0.006)	(0.008)	(0.008)	(0.008)
Overall trend				-0.037*	-0.014*	-0.016***
				(0.016)	(0.006)	(0.003)
$R^2$	0.54	0.43	0.46	0.54	0.43	0.46
Schools	74	220	1,129	74	220	1,129
N	1,877	2,178	26,192	1,877	2,176	26,192
Asian enrollment						
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter- factual	All	Switchers	Counter- factual	All
Before years	-0.029	-0.000	-0.005			
Ž	(0.018)	(0.013)	(0.005)			
After years	-0.031	0.009	-0.011	-0.002	0.009	-0.006
	(0.018)	(0.009)	(0.008)	(0.011)	(0.015)	(0.010)
Overall trend				-0.029	-0.000	-0.005
				(0.018)	(0.013)	(0.005)
$R^2$	0.33	0.25	0.22	0.33	0.25	0.22
Schools	73	214	1,078	73	214	1,078
N	1,799	2,061	23,545	1,799	2,059	23,545
Black enrollment						
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter- factual	All	Switchers	Counter- factual	All
Before years	-0.021	0.016	0.002		iactuai	
Defore years	(0.014)	(0.008)	(0.002)			
After years	-0.031*	0.004	-0.012	-0.010	-0.012	-0.014
	(0.016)	(0.008)	(0.006)	(0.007)	(0.009)	(0.008)
Overall trend				-0.021	0.016	0.002
				(0.014)	(0.008)	(0.004)
$R^2$	0.48	0.43	0.41	0.48	0.43	0.41
Schools	74	217	1,111	74	217	1,111
N	1,880	2,173	26,158	1,880	2,171	26,158

Notes: \*\*\* p < .001, \*\* p < .01, \*\* p < .05. Models include controls for total first-year enrollment, county 18 to 24 population by race, and state 18 to 24 population by race.

Table 4. White, Asian, and Black Trend Break Analyses with Admissions Control, Public Sector 2001-2019

Before years	(1) Switchers	(2) Counter-	(3)	(4)	(5)	(6)
Before years						
Before years			All	Switchers	Counter-	All
Before years		factual			factual	
	-0.016*	$0.011^{*}$	-0.011***			
	(0.007)	(0.005)	(0.003)			
After years	-0.030***	-0.006	-0.032***	-0.014**	-0.016**	-0.020***
•	(0.008)	(0.005)	(0.004)	(0.005)	(0.006)	(0.005)
Overall trend				-0.016*	0.011*	-0.011***
				(0.007)	(0.005)	(0.003)
% admitted	-0.001	-0.001*	0.000	-0.001	-0.001*	0.000
	(0.001)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
$R^2$	0.67	0.61	0.43	0.67	0.61	0.43
Schools	51	151	564	51	151	564
N	943	1,665	9,722	943	1,665	9,722
Asian enrollment			-			-
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
		factual			factual	
Before years	-0.012	0.003	0.003			
-	(0.012)	(0.009)	(0.005)			
After years	-0.027	-0.015	-0.024**	-0.016	-0.018	-0.026*
J	(0.015)	(0.009)	(0.009)	(0.011)	(0.012)	(0.010)
	(*****)	(0.00)	(*****)	(0.01-1)	(***)	(*****)
Overall trend				-0.012	0.003	0.003
				(0.012)	(0.009)	(0.005)
% admitted	-0.003**	-0.003*	-0.001	-0.003**	-0.003*	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
$R^2$	0.54	0.39	0.25	0.54	0.39	0.25
Schools	51	151	562	51	151	562
N	940	1,659	9,418	940	1,659	9,418
Black enrollment	710	1,000	2,710	JTU	1,007	7,710
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
		factual			factual	
Before years	0.019	0.014	-0.012*			
Ž	(0.012)	(0.009)	(0.005)			
After years	-0.007	0.015	-0.030**	-0.027*	0.001	-0.017
,	(0.011)	(0.011)	(0.010)	(0.012)	(0.012)	(0.011)
	(0.011)	(0.011)	(3.010)	(3.012)	(0.012)	(0.011)
				0.019	0.014	-0.012*
Overall trend				(0.012)	(0.009)	(0.005)
Overall trend				(0.012)	(0.00)	(0.003)
	0.001	0.001	0.002***	, ,	, ,	, , ,
	0.001	0.001	0.002***	0.001	0.001	0.002***
% admitted	(0.001)	(0.002)	(0.001)	0.001 (0.001)	0.001 (0.002)	0.002*** (0.001)
				0.001	0.001	0.002***

Notes: \*\*\* p < .001, \*\* p < .01, \*\* p < .05. Models are restricted to the years with admission control rate data. Models include controls for total first-year enrollment, county 18 to 24 population by race, state 18 to 24 population by race, and percent admitted.

Table 5. White, Asian, and Black Trend Break Analyses with Admissions Control, Private Sector 2001-2019

White enrollment	1 2015					
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
	**	factual	di di		factual	
Before years	-0.032*	-0.004	-0.013**			
	(0.013)	(0.007)	(0.005)			
After years	-0.063***	-0.026***	-0.042***	-0.031***	-0.022*	-0.029***
ritter years	(0.011)	(0.006)	(0.004)	(0.009)	(0.010)	(0.008)
	(0.011)	(0.000)	(0.001)	(0.00)	(0.010)	(0.000)
Overall trend				-0.032*	-0.004	-0.013**
				(0.013)	(0.007)	(0.005)
% admitted	-0.001	-0.001	0.000	-0.001	-0.001	0.000
	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)
$R^2$	0.54	0.53	0.44	0.54	0.53	0.44
Schools	58	190	963	58	190	963
N	1,037	1,648	15,789	1,037	1,646	15,789
Asian enrollment	(1)	(0)	(2)	(4)	(5)	(0)
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
		factual			factual	
Before years	0.020	-0.003	-0.004			
	(0.020)	(0.011)	(0.007)			
After years	-0.020	-0.020	-0.037**	-0.040**	-0.017	-0.034*
anter years	(0.020)	(0.013)	(0.011)	(0.015)	(0.017)	(0.015)
	(0.020)	(0.013)	(0.011)	(0.013)	(0.017)	(0.013)
Overall trend				0.020	-0.003	-0.004
				(0.020)	(0.011)	(0.007)
% admitted	0.001	0.001	0.000	0.001	0.001	0.000
	(0.002)	(0.001)	(0.000)	(0.002)	(0.001)	(0.000)
$R^2$	0.29	0.20	0.14	0.29	0.20	0.14
Schools	58	186	943	58	186	943
N	995	1,573	14,553	995	1,571	14,553
Black enrollment	(1)	(2)	(2)	(4)	(5)	(6)
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
D 0	0.000	factual	0.012		factual	
Before years	-0.000	-0.000	-0.012			
	(0.017)	(0.009)	(0.006)			
After years	-0.004	-0.010	-0.020	-0.004	-0.009	-0.008
)	(0.022)	(0.011)	(0.013)	(0.015)	(0.012)	(0.014)
	(0.022)	(0.011)	(0.015)	(0.015)	(0.012)	(0.011)
				-0.000	-0.002	-0.012
Overall trend						, <del></del>
Overall trend				(0.017)	(0.009)	(0.006)
				(0.017)	, ,	, , ,
	0.001	-0.000	-0.000	(0.017) 0.001	-0.000	-0.000
% admitted	0.001 (0.001)	-0.000 (0.001)	-0.000 (0.000)	(0.017)	, ,	, , ,
Overall trend $% = \frac{R^2}{R^2}$				(0.017) 0.001	-0.000	-0.000

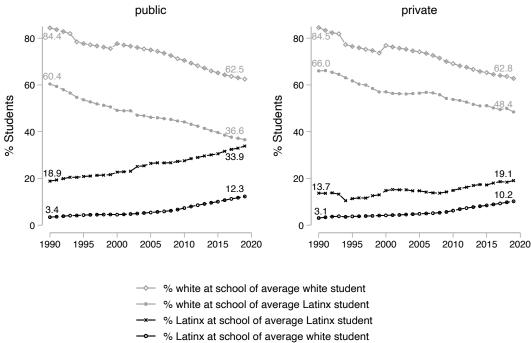
Notes: \*\*\* p < .001, \*\* p < .01, \*\* p < .05. Models are restricted to the years with admission control rate data. Models include controls for total first-year enrollment, county 18 to 24 population by race, state 18 to 24 population by race, and percent admitted.

Table 6. Latinx Trend Break Analyses, Public and Private Sectors 1990-2019

Public Latinx enrollment		, , , , , , , , , , , , , , , , , , ,				
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
		factual			factual	
Before years	0.022**	0.016***	-0.006*			
	(0.007)	(0.004)	(0.003)			
After years	0.008	0.015***	-0.019***	-0.013***	-0.001	-0.013**
ý	(0.006)	(0.002)	(0.003)	(0.003)	(0.004)	(0.004)
Overall trend				0.022**	0.016***	-0.006*
				(0.007)	(0.004)	(0.003)
$R^2$	0.93	0.91	0.77	0.93	0.91	0.77
Schools	80	213	723	80	213	723
N	2,005	2,579	17,167	2,005	2,579	17,167
Private Latinx enrollment						
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter- factual	Àĺl	Switchers	Counter- factual	Àĺl
Before years	0.045***	0.029***	0.009*			
,	(0.009)	(0.004)	(0.003)			
After years	0.011	0.014***	-0.026***	-0.035***	-0.015**	-0.035***
ý	(0.010)	(0.004)	(0.005)	(0.006)	(0.005)	(0.006)
Overall trend				0.045***	0.028***	$0.009^{*}$
				(0.009)	(0.004)	(0.003)
$R^2$	0.81	0.75	0.59	0.81	0.75	0.59
Schools	74	220	1,108	74	220	1,108
N	1,880	2,184	25,255	1,880	2,182	25,255

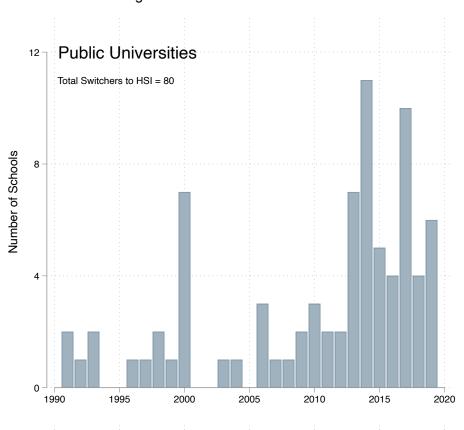
Notes: \*\*\* p < .001, \*\* p < .01, \*p < .05. Models include controls for total first-year enrollment, county 18 to 24 population by race, and state 18 to 24 population by race.

Figure 1: Latinx and White Student Exposure Indices for Four-Year Institutions



Notes: Data are drawn from IPEDS, 1990-2019 Fall Enrollment Surveys.

Figure 2: Switches to HSI Status



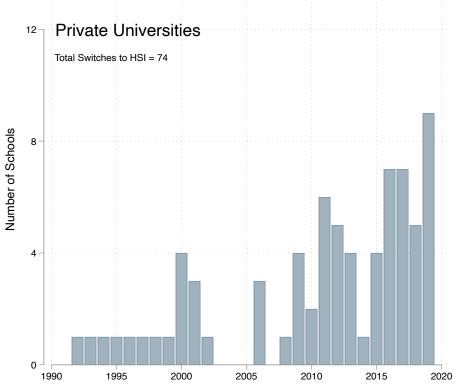


Figure 3: Event Studies of Enrollments Around HSI Status Change

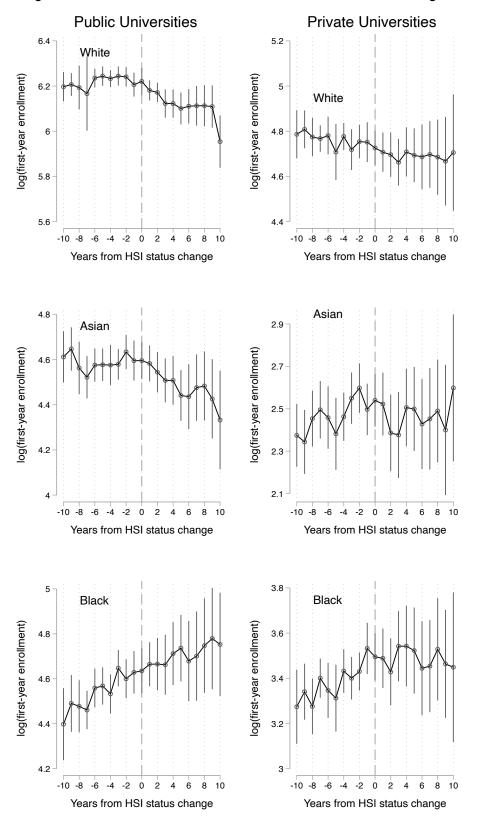


Figure 4: Event Studies of Enrollments With Admissions Control

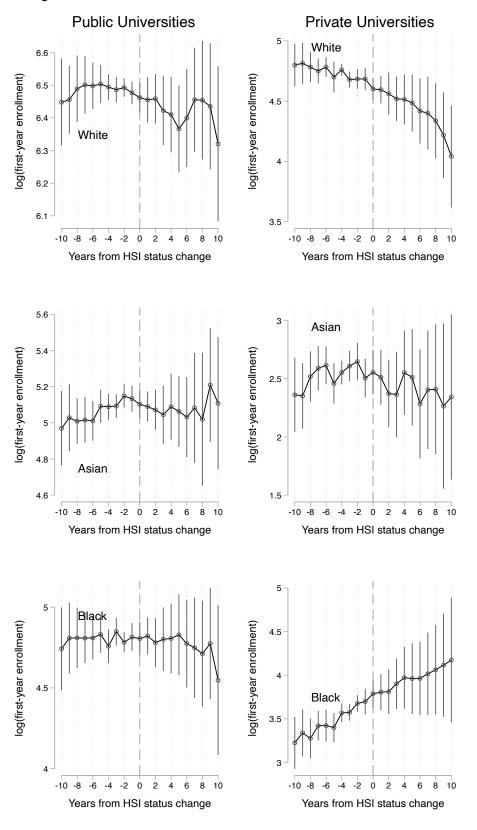


Figure 5: Event Studies of Latinx First-Year Enrollments

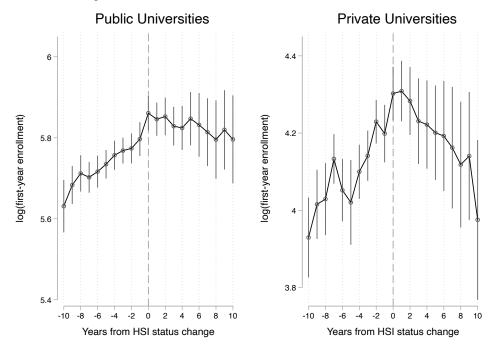
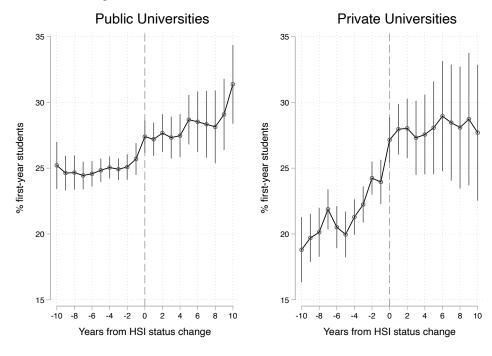


Figure 6: Event Studies of Percent First-Years Latinx



## Appendix Table 1A. Public Switchers, Private Switchers, Pre-1990 HSIs

Public switchers, 1990-2019 (N=80)

Adams State College New Mexico Institute of Mining and Technology

Angelo State University

Brazosport College<sup>c</sup>

California State College-Bakersfield

Northeastern Illinois University

Northern Arizona University

Palm Beach State College<sup>c</sup>

California State Polytechnic University Pomona Panhandle State University/ Oklahoma Panhandle State University

California State University-Channel Islands Polk State College

California State University-Chico
Rutgers University Newark Campus
California State University-Dominguez Hills
California State University-Fresno
San Diego State University
California State University-Fullerton
California State University-Fullerton
California State University-Hayward
Seminole State College of Floridac

California State University-Long Beach Sonoma State University

California State University-Monterey Bay Southwest Texas State University/ Texas State University

California State University-Northridge SUNY College at Old Westbury
California State University-Sacramento SUNY College at Purchase
California State University-San Bernardino Texas Tech University
California State University-San Marcos Texas Woman's University

California State University-Stanislaus The University of Texas of The Permian Basin

Colorado Mountain College University of Arizona

Columbia Basin College<sup>c</sup>
University of California-Irvine

Community College of Southern Nevada<sup>c</sup>

CUNY College of Staten Island

University of California-Riverside

University of California-Riverside

CUNY College of Staten Island

CUNY Hunter College

CUNY Hunter College

CUNY New York City Technical College/ New York City

University of California-Santa Barbara

University of California-Santa Cruz

College of Technology

CUNY Queens College

CUNY York College

University of Connecticut-Stamford

University of Florida-Online

University of Houston-Downtown

Eastern New Mexico University Main Campus

University of Houston-University Park

University of Houston-University Park

University of Human At Chicago

Edison College<sup>c</sup> University of Illinois At Chicago Florida Atlantic University University of Nevada-Las Vegas

Florida Keys Community College/ The College of the Florida Keys University of New Mexico Main Campus

Foothill College<sup>c</sup> University of North Texas

Humboldt State University

University of South Alabama-Baldwin<sup>a</sup>

Indian River State College<sup>c</sup> University of Southern Colorado/ Colorado State Pueblo

Indiana University Northwest
University of Texas At Arlington
Jersey City State College/ New Jersey City University
Walla Walla Community College<sup>c</sup>

Kean College of New Jersey/ Kean University

West Texas State University/ Texas A&M

Metropolitan State College of Denver

Western Nevada College

Montclair State College William Paterson College of New Jersey

Nevada State College at Henderson

# **Private switchers, 1990-2019 (N=74)**

Alverno College Mercy College - Main Campus

American Musical and Dramatic Academy<sup>b</sup>

Aurora University

Metropolitan College of Court Reporting<sup>a</sup>

Mills College

Azusa Pacific University

Azusa Pacific University

Barry University

Bloomfield College

Mount Mary College/ Mount Mary University

National University

North Park College and Theological Seminary

Caldwell College

Nova University/ Nova Southeastern University

California Baptist College

Nyack College

California Lutheran University

Ottawa University-Surprise

Calumet College of Saint Joseph Pacific Christian College/ Hope International University

Christ College Irvine/ Concordia University-Irvine Pacific Union College College of Mount Saint Vincent Regis University

College of New Rochelle Robert Morris College/ Robert Morris University
College of Notre Dame/ Notre Dame de Namur University Roosevelt University

College of Saint Elizabeth/ Saint Elizabeth University
College of Santa Fe/ University of the Southwest

Rosary College of Arts and Sciences-Dominican
University

Concordia Lutheran College/ Concordia University Texas Saint Edward's University

Concordia University Saint Joseph's College-Main Campus

Dominican College of Blauvelt

Dominican College of San Rafael/ Dominican University of of California

Elmhurst College

Fairleigh Dickinson University Felician College/ Felician University

Franklin Institute of Boston/Ben Franklin Institute of Technology

Fresno Pacific College Holy Names University Houston Baptist University Howard Payne University

Humphreys College-Stockton/ Humphreys University

Huston-Tillotson College

International College/ Hodges University International Institute of The Americas<sup>a</sup> Johnson & Wales University Florida Campus

La Sierra University Manhattanville College Marymount College McMurry University Menlo College Saint Mary's College of California

Saint Peter's College/ Saint Peter's University Saint Xavier College/ Saint Xavier University Schreiner College/ Schreiner University

Southern California College/ Southern California University of Health Sciences

Southwestern Adventist College/ Southwestern Adventist University

St Francis College

Texas Lutheran College/ Texas Lutheran University

Texas Wesleyan University

Trinity College Union College

University of Bridgeport

University of Laverne/ University of La Verne

University of Miami<sup>b</sup> University of Redlands University of Saint Thomas Wayland Baptist University

Whittier College Woodbury University

#### **Hispanic-Serving Institutions Prior to 1990**

#### Public (N=13)

California State University-Los Angeles

**CUNY City College** 

CUNY John Jay College Criminal Justice

CUNY Lehman College Florida International University New Mexico Highlands University New Mexico State University Main Campus

Sul Ross State University

Texas A&I University/ Texas A&M-Kingsville

The University of Texas-Pan American/ University of Texas

Rio Grande

University of Texas at El Paso University of Texas San Antonio Western New Mexico University

#### Private (N=7)

College of Aeronautics/ Vaughn College of Aeronautics and Technology

Boricua Collegeb

Incarnate Word College/ University of the Incarnate Word

Mount Saint Mary's College

Our Lady of the Lake University San Antonio

Saint Mary's University Saint Thomas University

Notes for public and private switchers: Schools in the list have been confirmed as Hispanic-Serving Institutions through a cross-check with Excelencia in Education and/or school websites. A small number of exceptions are marked. The handful of schools not currently (in 2021) recognized either have a closed or stopped reporting data to IPEDS or b have inconsistent Latinx enrollment over time. Indicates that the school offers BA/BS degrees, but also offers Associate degrees or certificates. Schools may have more than one working name during the time period; the initial IPEDS name is listed first, followed by the most recent name. CUNY New York City Technical College/ New York City College of Technology, Saint Edward's University, and Mercy College-Main Campus technically crossed the 25% Latinx threshold before 1990 but dropped below by 1990. They later met criteria for Hispanic-Serving, a transition that was likely meaningful and attached to HSI status and are thus included as switchers above. In what is almost certainly a data error, Boricua College reports its 1993 and 1994 Latinx enrollment at 0% and 5% after being at 94% in the three previous years; thus, we treat it as school that switched prior to 1990.

Appendix: Table A2. White, Asian, and Black Trend Break Analyses, Public Sector 2001-2019

White enrollment	-	-			-	
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	Àĺĺ	Switchers	Counter-	Àĺĺ
		factual			factual	
Before years	-0.014	0.011*	-0.013***			
·	(0.008)	(0.005)	(0.003)			
	` ,	` ,	, ,			
After years	-0.023*	-0.006	-0.033***	-0.009	-0.017**	-0.020***
•	(0.010)	(0.005)	(0.004)	(0.005)	(0.006)	(0.005)
	` ,	` ,	, ,	, ,	,	, ,
Overall trend				-0.014	$0.011^{*}$	-0.013***
				(0.008)	(0.005)	(0.003)
$R^2$	0.41	0.59	0.40	0.41	0.59	0.40
Schools	67	212	722	67	212	722
N	1,130	2,134	11,721	1,130	2,134	11,721
Asian enrollment	-	-	-	-	-	-
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	Àĺĺ	Switchers	Counter-	Àĺĺ
		factual			factual	
Before years	-0.004	0.003	0.002			
·	(0.013)	(0.008)	(0.005)			
	,	,	, ,			
After years	-0.023	-0.023*	-0.028***	-0.019	-0.026*	-0.030**
·	(0.016)	(0.009)	(0.008)	(0.011)	(0.011)	(0.009)
Overall trend				-0.004	0.003	0.002
				(0.013)	(0.008)	(0.005)
$R^2$	0.40	0.31	0.22	0.40	0.31	0.22
Schools	67	212	718	67	212	718
N	1,123	2,108	11,213	1,123	2,108	11,213
Black enrollment						
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
		factual			factual	
Before years	0.019	$0.018^{*}$	-0.008			
-	(0.015)	(0.009)	(0.006)			
After years	-0.014	0.007	-0.035***	-0.033**	-0.011	-0.027*
	(0.015)	(0.011)	(0.010)	(0.012)	(0.012)	(0.012)
Overall trend				0.019	$0.018^{*}$	-0.008
				(0.015)	(0.009)	(0.006)
$R^2$	0.45	0.33	0.35	0.45	0.33	0.35
Schools	67	212	721	67	212	721
N	1,127	2,126	11,662	1,127	2,126	11,662

Notes: p < .001, p < .01, p < .05. Models are restricted to the years with admission control rate data; however, these models do *not* control for admission rate. Models include controls for total first-year enrollment, county 18 to 24 population by race, and state 18 to 24 population by race.

Appendix: Table A3. White, Asian, and Black Trend Break Analyses, Private Sector 2001-2019

White enrollment	-	-			-	
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
		factual			factual	
Before years	-0.030*	-0.009	-0.015**			
·	(0.012)	(0.007)	(0.005)			
After years	-0.063***	-0.034***	-0.042***	-0.033***	-0.025**	-0.027***
•	(0.011)	(0.007)	(0.004)	(0.008)	(0.009)	(0.008)
Overall trend				-0.030*	-0.009	-0.015**
				(0.012)	(0.007)	(0.005)
$R^2$	0.54	0.46	0.39	0.54	0.46	0.39
Schools	64	215	1,048	64	215	1,048
N	1,110	1,837	17,048	1,110	1,835	17,048
Asian enrollment	, , ,	,	. ,	, -	,	- , ,
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	Àĺĺ	Switchers	Counter-	Àĺĺ
		factual			factual	
Before years	0.010	-0.004	-0.003			
•	(0.021)	(0.011)	(0.007)			
After years	-0.027	-0.017	-0.036**	-0.037*	-0.012	-0.032*
	(0.021)	(0.013)	(0.011)	(0.015)	(0.017)	(0.015)
Overall trend				0.010	-0.004	-0.003
				(0.021)	(0.011)	(0.007)
$R^2$	0.28	0.21	0.14	0.28	0.21	0.14
Schools	64	209	1,013	64	209	1,013
N	1,061	1,738	15,454	1,061	1,736	15,454
Black enrollment						
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter- factual	All	Switchers	Counter- factual	All
Before years	-0.005	0.009	-0.012		ractaar	
Before years	(0.015)	(0.010)	(0.006)			
After years	-0.006	0.002	-0.015	-0.001	-0.006	-0.003
Tittel years	(0.021)	(0.012)	(0.013)	(0.014)	(0.012)	(0.014)
Overall trend				-0.005	0.008	-0.012
_ :				(0.015)	(0.010)	(0.006)
$R^2$	0.34	0.40	0.32	0.34	0.40	0.32
Schools	64	212	1,038	64	212	1,038
N	1,112	1,831	17,087	1,112	1,829	17,087

Notes: \*\*\* p < .001, \*\* p < .01, \* p < .05. Models are restricted to the years with admission control rate data; however, these models do *not* control for admission rate. Models include controls for total first-year enrollment, county 18 to 24 population by race, and state 18 to 24 population by race.

# Appendix: Table A4. Latinx Trend Break Analyses with Admissions Control, Public and Private Sectors 2001-2019

Public Latinx						
enrollment	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
		factual			factual	
Before years	0.036***	0.018***	-0.015***			
•	(0.008)	(0.004)	(0.004)			
After years	$0.015^{*}$	0.012**	-0.022***	-0.021**	-0.005	-0.007
-	(0.007)	(0.004)	(0.005)	(0.006)	(0.006)	(0.006)
Overall trend				0.036***	0.018***	-0.015***
				(0.008)	(0.004)	(0.004)
% admitted	0.002**	0.001**	0.002***	0.002**	0.001**	0.002***
	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)
$R^2$	0.94	0.88	0.71	0.94	0.88	0.71
Schools	51	151	563	51	151	563
N	943	1,665	9,650	943	1,665	9,650
Private Latinx enrollment						
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter- factual	All	Switchers	Counter- factual	All
Before years	0.046***	0.022***	0.001			
•	(0.011)	(0.006)	(0.005)			
After years	$0.028^{*}$	0.031***	-0.008	-0.018*	0.010	-0.010
-	(0.013)	(0.006)	(0.006)	(0.009)	(0.008)	(0.009)
Overall trend				0.046***	0.021***	0.001
				(0.011)	(0.006)	(0.005)
% admitted	0.000	0.000	0.001	0.000	0.000	0.001
	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)
$R^2$	0.79	0.76	0.51	0.79	0.76	0.51
Schools	58	190	956	58	190	956
<i>N</i>	1,039	1,649	15,584	1,039	1,647	15,584

Notes: \*\*\* p < .001, \*\* p < .01, \*p < .05. Models are restricted to the years with admission control rate data. Models include controls for total first-year enrollment, county 18 to 24 population by race, state 18 to 24 population by race, and percent admitted.

Appendix: Table A5. Latinx Trend Break Analyses, Public and Private Sectors 2001-2019

Public Latinx

Public Latinx enrollment						
- CHI GHIHCHC	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	Àĺl	Switchers	Counter-	ÀÍI
		factual			factual	
Before years	0.044***	0.021***	-0.012**			
	(0.008)	(0.004)	(0.004)			
After years	0.019**	0.014***	-0.024***	-0.025***	-0.007	-0.012
•	(0.006)	(0.004)	(0.005)	(0.006)	(0.005)	(0.007)
Overall Trend				0.044***	0.021***	-0.012**
				(0.008)	(0.004)	(0.004)
$R^2$	0.92	0.88	0.68	0.92	0.88	0.68
Schools	67	212	720	67	212	720
N	1,129	2,134	11,612	1,129	2,134	11,612
Private Latinx enrollment						
	(1)	(2)	(3)	(4)	(5)	(6)
	Switchers	Counter-	All	Switchers	Counter-	All
		factual			factual	
Before years	0.055***	0.023***	0.001			
	(0.011)	(0.005)	(0.006)			
After years	$0.034^{*}$	0.034***	-0.008	-0.021*	0.012	-0.009
•	(0.013)	(0.006)	(0.006)	(0.009)	(0.008)	(0.009)
Overall Trend				0.055***	0.022***	0.001
				(0.011)	(0.005)	(0.006)
$R^2$	0.76	0.75	0.49	0.76	0.75	0.49
Schools	64	215	1,039	64	215	1,039
N	1,112	1,842	16,793	1,112	1,840	16,793

Notes: \*\*\* p < .001, \*\* p < .01, \* p < .05. Models are restricted to the years with admission control rate data; however, these models do *not* control for admission rate. Models include controls for total first-year enrollment, county 18 to 24 population by race, and state 18 to 24 population by race.