

## Trends in Enrollment Growth at Public Flagship Universities

An Essay for the Learning Curve by Joydeep Roy and Jingyi Su  
October 2022

Conventional wisdom bemoans the lack of sufficient seats for aspiring students at selective institutions in the face of rising demand for a good college education.<sup>1</sup> Private elite universities, including the Ivy League colleges, are notoriously slow to expand, with most recent growth being concentrated at the postbaccalaureate level. Is the same true for public flagship universities, the most selective public postsecondary institutions in their respective states? Given the importance of these flagships in promoting economic mobility, particularly for high-achieving students of modest means with limited options outside their resident state, and given the low graduation rates that plague less-selective public colleges, understanding trends in flagship enrollment is key to evaluating equity of college access.<sup>2</sup>

Our analysis shows that over the two decades before the COVID-19 pandemic, undergraduate enrollment at the nation's 50 public flagships has lagged behind increases in the number of high school graduates and overall college attendance; these institutions have also expanded less than the average four-year institution. Further, there was large variation in growth across the 50 flagships, with some expanding prolifically and others barely expanding their undergraduate enrollment. In many cases, including flagship colleges in the South, growth was accompanied by significant increases in out-of-state students. The share of in-state residents in freshman enrollment held steady at the top flagships, but these colleges are increasingly recruiting international students. Hispanic students increased their presence in most flagships, including at the most selective ones, but Black student representation stagnated.

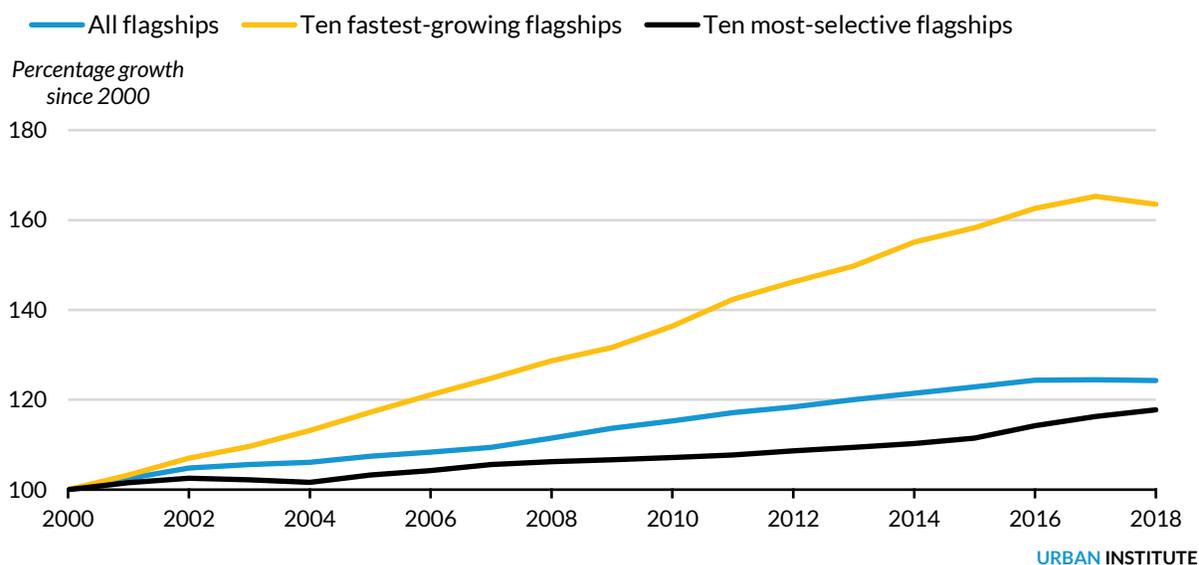
---

<sup>1</sup> Jeffrey J. Selingo, "Harvard and Its Peers Should Be Embarrassed about How Few Students They Educate," *Washington Post*, April 8, 2021, [https://www.washingtonpost.com/outlook/harvard-and-its-peers-should-be-embarrassed-about-how-few-students-they-educate/2021/04/08/3c0be99c-97cb-11eb-b28d-bfa7bb5cb2a5\\_story.html](https://www.washingtonpost.com/outlook/harvard-and-its-peers-should-be-embarrassed-about-how-few-students-they-educate/2021/04/08/3c0be99c-97cb-11eb-b28d-bfa7bb5cb2a5_story.html); and David L. Kirp, "Why Stanford Should Clone Itself," *New York Times*, April 6, 2021, <https://www.nytimes.com/2021/04/06/opinion/stanford-admissions-campus.html>.

<sup>2</sup> Jill Barshay, "Payoff for State Flagships Is 10 Percent Larger Than Published Data Indicate," Hechinger Report, August 15, 2022, <https://www.kqed.org/mindshift/59706/payoff-for-state-flagships-is-10-percent-larger-than-published-data-indicate>; and Andrew Foote and Kevin M. Stange, *Attrition from Administrative Data: Problems and Solutions with an Application to Postsecondary Education* (working paper, National Bureau of Economic Research, Cambridge, Massachusetts, 2022).

## Undergraduate Enrollment

**FIGURE 1**  
**Increase in Undergraduate Enrollment across Public Flagship Universities, 2000–18**



Source: Authors’ calculations from Integrated Postsecondary Education Data System data via the Urban Institute’s Education Data Portal.

The 50 US public flagships, taken as a whole, increased their total student enrollment by 24 percent between 2000 and 2018, from 0.9 million students to 1.2 million students.<sup>3</sup>

During that same period, the number of 20-to-24-year-olds (in the civilian noninstitutional population) in the United States increased 17 percent from 18.3 million<sup>4</sup> to 21.4 million.<sup>5</sup> The number of high school graduates grew by 29 percent, and total fall enrollment in Title IV institutions rose by 28 percent (fall enrollment at four-year colleges, meanwhile, increased 48 percent) (figure 2).<sup>6</sup>

<sup>3</sup> We employ the list of public flagships used by Konrad Mugglestone, Kim Dancy, and Mamie Voight, “Opportunity Lost: Net Price and Equity at Public Flagship Institutions” (Washington, DC: Institute for Higher Education Policy, 2019).

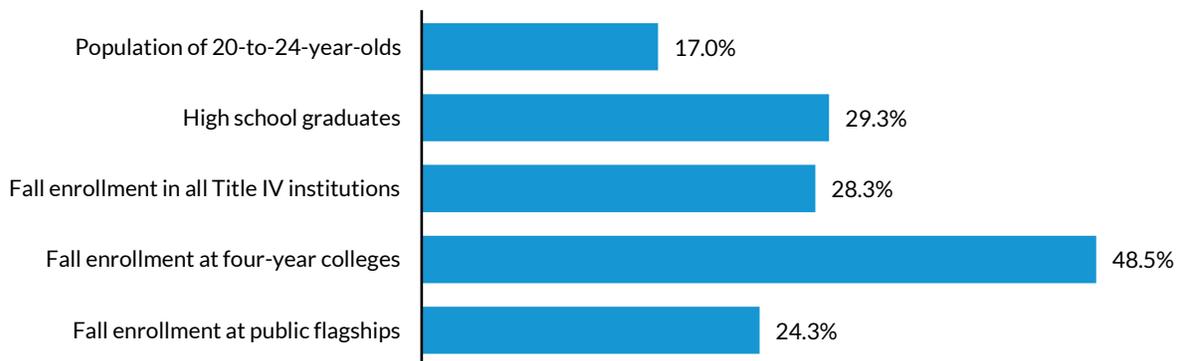
<sup>4</sup> “Table 3.2 Civilian Noninstitutional Population by Age, Sex, Race, and Ethnicity, 2001, 2011, 2021, and Projected 2031 (Numbers in Thousands),” US Bureau of Labor Statistics, last updated September 8, 2022, <https://www.bls.gov/emp/tables/civilian-noninstitutional-population.htm>.

<sup>5</sup> “Age and Sex Composition in the United States: 2018,” US Census Bureau, last updated October 8, 2021, <https://www.census.gov/data/tables/2018/demo/age-and-sex/2018-age-sex-composition.html>.

<sup>6</sup> Digest of Education Statistics, table 303.25, [https://nces.ed.gov/programs/digest/d19/tables/dt19\\_303.25.asp](https://nces.ed.gov/programs/digest/d19/tables/dt19_303.25.asp).

FIGURE 2

Percentage Increases, 2000–18



URBAN INSTITUTE

Sources: US Census Bureau and the Digest of Education Statistics.

There was significant heterogeneity in the magnitude of enrollment changes across the 50 flagships, with many in the South expanding faster than their peers. The 10 fastest-growing flagships enrolled 64 percent more undergraduates in fall 2018 compared with fall 2000. These universities, ranked in terms of increase in enrollment, are the University of Alabama; the University of Mississippi; the University of Arkansas; the University of Nevada, Reno; the University of South Carolina; the University of South Dakota; the University of Connecticut; the University of Rhode Island; West Virginia University; and the University of California, Berkeley. The University of Alabama doubled its enrollment during this period, and the University of Mississippi and the University of Arkansas each saw attendance increases of more than 80 percent.

On the other hand, the most selective public flagships<sup>7</sup> barely expanded. Their enrollment of undergraduates increased from 254,214 students in fall 2000 to 299,353 students in fall 2018, an 18 percent increase over 18 years. Only one of these 10 most-selective public flagships, the University of California, Berkeley, featured among the 10 fastest-growing flagships, while three others (the University of Wisconsin–Madison, the University of Texas at Austin, and the University of Florida) expanded by less than 10 percent over these two decades.<sup>8</sup>

<sup>7</sup> Public flagships were classified as most selective based primarily on the Barron's *Profile of American Colleges 2001*, where the University of California, Berkeley, and the University of Virginia were ranked as the most competitive and the University of Florida, the University of Georgia, the University of Illinois at Urbana–Champaign, the University of Michigan, the University of North Carolina at Chapel Hill, the University of Texas at Austin, and the University of Wisconsin–Madison were all ranked as highly competitive. The University of Maryland, College Park, was added to the list based on the Barron's rankings from later years. This classification of flagships is consistent with other popular and academic measures of college rankings, including those from *U.S. News and World Report* (various years) and the *Washington Monthly* (2021).

<sup>8</sup> Despite their slow recent growth, the most-selective flagships remain larger than their peers. The average undergraduate enrollment in a public flagship was 23,331 in fall 2018, but the most selective among them enrolled almost 30,000 undergraduates.

## Enrollment by State and Country of Residence

The average US public flagship recruited about three-quarters of its undergraduates in fall 2000 from among in-state residents, and this share has steadily declined since then (figure 3). In fall 2018, only 63 percent of freshmen in flagship universities were in-state residents. Some of the flagships that recruited lower shares of in-state students are in small states and have suffered declines in their resident populations in recent years, perhaps producing inadequate in-state demand.<sup>9</sup> But several relatively large public flagships in the South filled up at least half of their domestic enrollment through out-of-state students.

The flagships that expanded the most between 2000 and 2018 witnessed the largest declines in their shares of in-state students.<sup>10</sup> But this share was stable at the 10 most-selective flagships. These selective universities were already admitting more in-state students than the average flagship in fall 2000 (79 percent versus 74 percent), and they have continued to do so throughout the past two decades. Being located in more populous states<sup>11</sup> and having relatively stagnant undergraduate enrollments, top-ranking flagships are probably able to fill up more of their incoming classes with in-state residents without changing their admissions practices.

---

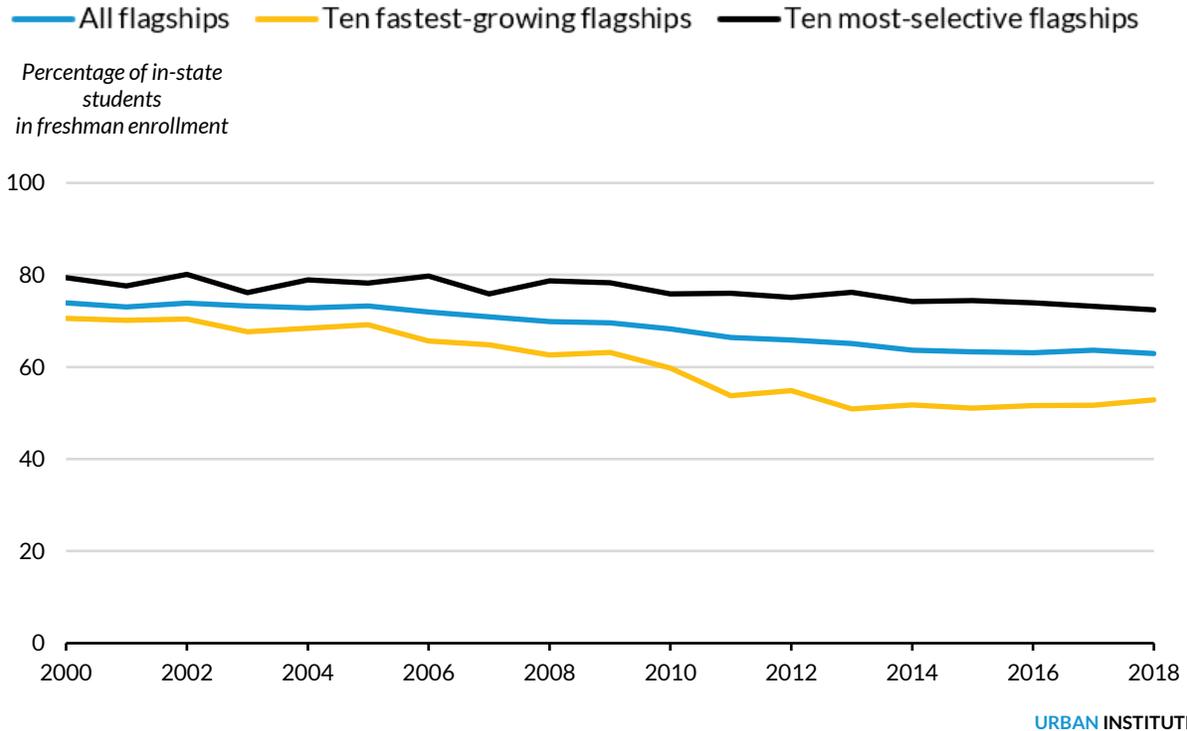
<sup>9</sup> These flagships include the University of Vermont, the University of North Dakota, West Virginia University, and the University of Wyoming.

<sup>10</sup> For example, the share of in-state students among domestic freshmen decreased from 83 percent to 50 percent at the University of Arkansas, from 76 percent to 35 percent at the University of Alabama, and from 78 percent to 52 percent at the University of South Carolina.

<sup>11</sup> Seven of the most-selective public flagships are in states that rank among the 10 most-populous states, and all except one rank among the 20 most-populous states. See “US States—Ranked by Population 2022,” World Population Review, accessed October 1, 2022, <https://worldpopulationreview.com/states>.

FIGURE 3

Share of In-State Students across Public Flagship Universities, 2000–18



Source: Authors' calculations from Integrated Postsecondary Education Data System data via the Urban Institute's Education Data Portal.

International student enrollment is generally not a big driver of either enrollment or enrollment growth at the average public flagship. Less than 3 percent of students among the 50 public flagships in fall 2000 came from outside the country; this share increased to 6 percent in fall 2018, mostly stemming from a larger international presence at the most-selective flagships.

### Enrollment by Race and Ethnicity

New scholarly work has reemphasized the large and persistent racial and ethnic differences in student enrollment at selective and highly selective postsecondary institutions, with few meaningful changes in recent years.<sup>12</sup> In 2000, out of every 100 undergraduates enrolled at public flagships, 9 were Asian, 6 were Black, 5 were Hispanic, and 80 were white (figure 4).

By 2018, the share of white students in public flagships had fallen to 67 percent. The share of Black students was virtually unchanged at 6 percent, and Asian and Hispanic students each composed 11 percent of undergraduate enrollment. For reference, white students accounted for just over half of

<sup>12</sup> Tomás Monarrez and Kelia Washington, *Racial and Ethnic Representation in Postsecondary Education* (Washington, DC: Urban Institute, 2020).

public high school graduates in 2017–18, and Asian students accounted for 6 percent.<sup>13</sup> Black and Hispanic students made up 38 percent of high school graduates in 2018, but their combined representation in public flagships, 17 percent, was less than half that share.

Still, Hispanic students have made significant strides since 2000. By fall 2018, they composed 10 percent of undergraduate students in more than a third of the public flagships, with notable gains in the more selective colleges.<sup>14</sup> In contrast, Black student representation stagnated at most flagships, including at the most-selective institutions.<sup>15</sup> Many of these premier institutions, such as the University of California, Berkeley, and the University of Michigan, now enroll fewer Black undergraduates than before, despite expanding significantly. The 10 fastest-growing flagships also witnessed relative declines in Black attendance; at the University of South Carolina, the share of Black undergraduates halved over these two decades.

Asian students significantly increased their representation at the highly selective flagships; in many, they now compose more than 15 percent of the undergraduate class.<sup>16</sup> But Asian students lost relative ground in the fastest-growing campuses, particularly in the South. Overall, Asian students still compose a small share of the undergraduates in many public flagships, particularly in the South, Great Plains, and Rocky Mountains.

---

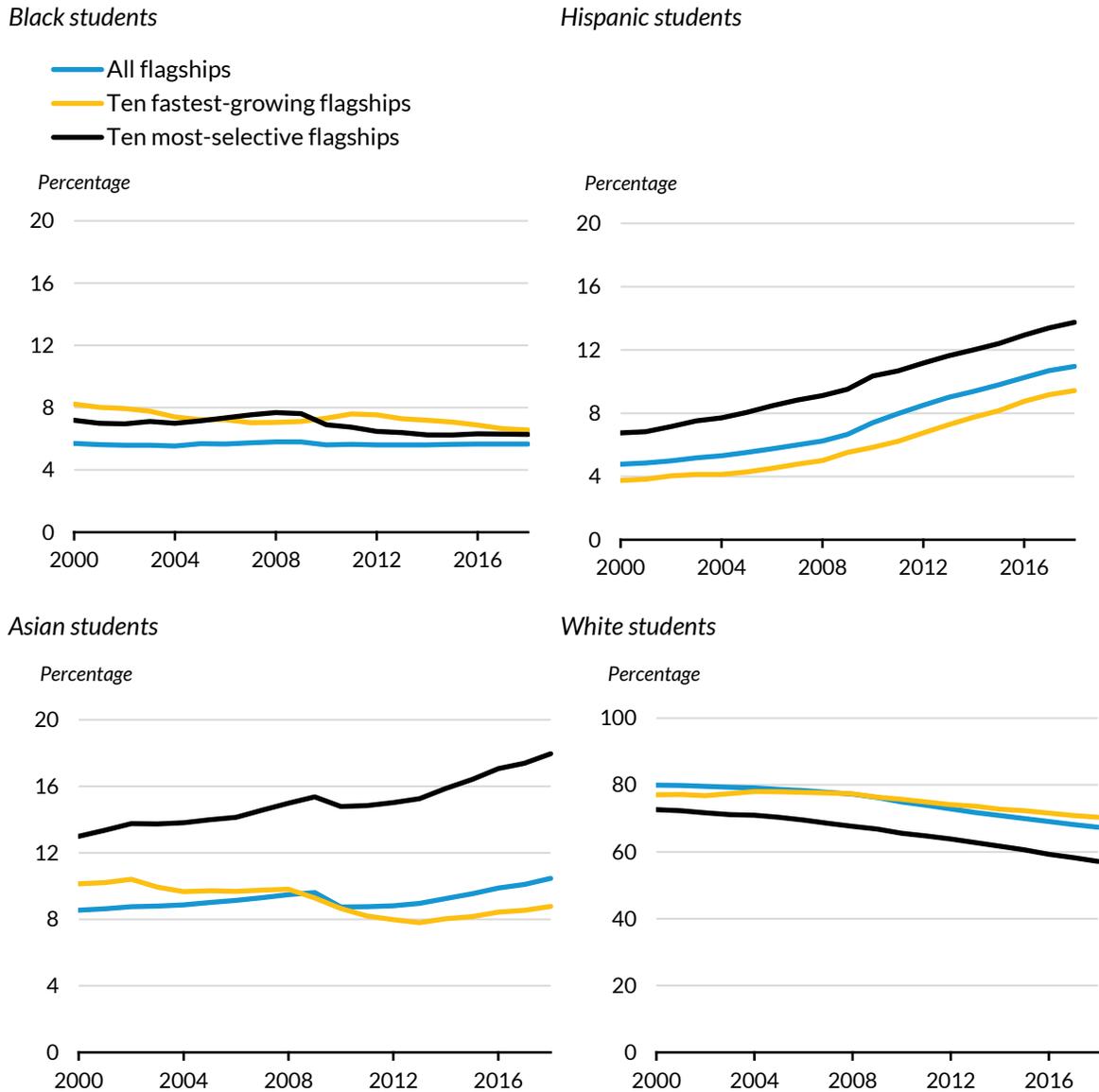
<sup>13</sup> The detailed statistics are available in the Digest of Education Statistics, table 219.30, [https://nces.ed.gov/programs/digest/d20/tables/dt20\\_219.30.asp](https://nces.ed.gov/programs/digest/d20/tables/dt20_219.30.asp). In 1999–2000, white and Asian students accounted for 70 percent and 5 percent, respectively, of public high school graduates, while 13 percent were Black, and 11 percent were Hispanic.

<sup>14</sup> At highly selective colleges like the University of Texas at Austin and the University of Florida, Hispanic students accounted for almost a quarter of undergraduates in 2018, while at the University of California, Berkeley, almost a fifth of undergraduates were Hispanic.

<sup>15</sup> Among the three highly selective flagships where Black students accounted for more than 10 percent of the undergraduate enrollment in 2000, only the University of Maryland, College Park, maintained that trend in 2018.

<sup>16</sup> These include the University of Virginia, the University of Texas at Austin, the University of Michigan, and the University of California, Berkeley.

**FIGURE 4**  
**Representation of Students across Public Flagship Universities, 2000–18**



URBAN INSTITUTE

Source: Authors' calculations from Integrated Postsecondary Education Data System data via the Urban Institute's Education Data Portal.

### Do Public Flagships Reflect the Demographic Makeup of their States?

States vary widely in the racial and ethnic makeup of their students. Monarrez and Washington note that when considering equity in access, it is important to benchmark an institution's undergraduate enrollment to the potential pool of applicants it faces. In this vein, we investigate how well public flagships mirror (or do not mirror) the racial and ethnic composition of their state's high school

graduates. This exercise illustrates whether each racial or ethnic group is over- or underrepresented at each public flagship relative to the pool of high school graduates (figure 5).<sup>17</sup>

In 2000, Asian students were overrepresented in every public flagship (except Alaska). Over the next two decades, the extent of this overrepresentation significantly increased in a few states (e.g., Illinois, New Jersey, Texas, and Washington) but mostly stayed the same across the country. The magnitude of overrepresentation was higher and more widespread for white students in 2000, and in many states, this statistic had gone up further by 2018, mostly because a marked decline in the share of white students among high school graduates was not matched by a commensurate diversification of flagship enrollment.

Conversely, Black students were underrepresented in most public flagships in 2000, relative to their share in the state's high school graduate pool. But they lost further ground in the ensuing years, as gains in high school graduation were not matched by corresponding gains in flagship enrollment. In particular, in many of the public flagships in the South where Black students were already significantly underrepresented (e.g., Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, and South Carolina), Black students lost further ground. Hispanic students also lost significant ground between 2000 and 2018, though the extent of their relative underrepresentation in public flagships in either of these years was lower than that for Black students.<sup>18</sup>

The University of Connecticut is an example of a public flagship that grew in relatively equitable ways while undergoing a significant expansion. The number of undergraduates at the institution increased by almost 50 percent between 2000 and 2018, and it became significantly more racially diverse. At some flagships, such as the University of Nevada, Reno, rapid state demographic changes and improved high school graduation rates obscure the effects of their diversity initiatives, though there were significant improvements in enrollment of underrepresented Black and Hispanic students.

On the other hand, flagships like the University of Alabama and the University of South Carolina, even though they experienced rapid growth in undergraduate enrollment, failed to diversify. The share

---

<sup>17</sup> We employ data from the US Department of Education (Digest of Education Statistics) on the racial and ethnic makeup of each state's high school graduates in 2000 and 2018. Then, we compare these shares with the corresponding shares of each racial and ethnic group in undergraduate enrollment in that state's flagship institution. For a similar exercise, see Lauren Lumpkin, Meredith Kolodner and Nick Anderson, "Flagship Universities Fail to Enroll Black and Latino High School Graduates from Their State," *Hechinger Report*, April 18, 2021, <https://hechingerreport.org/flagship-universities-fail-to-enroll-black-and-latino-high-school-graduates-from-their-state/>.

<sup>18</sup> A caveat is in order. The most relevant pool for admission to a state's public flagship does not comprise all a state's high school graduates (see Caroline Hoxby and Sarah Turner, "The Right Way to Capture 'College Opportunity'—Popular Measures Can Paint the Wrong Picture of Low-Income Student Enrollment," *Education Next* 19, no. 2 (Spring 2019): 66. Rather, it should include only students who have demonstrated college readiness (or a similarly rigorous academic metric), as flagship institutions are almost always the most selective public institutions in their respective states. Given the well-documented achievement differences between students of different races and ethnicities, it is likely that, on average, the underrepresentation of Black and Hispanic students would be lower if we narrowed the potential student pool at flagships to only college-ready students. But such a metric, which would necessitate benchmarks varying by state and year (to account for varying selectivity of different public flagships), is not readily available, at least going back to 2000. This remains an endeavor for future researchers.

of Black undergraduates fell from 15 percent to 10 percent in the Alabama flagship and from 20 percent to 9 percent in the South Carolina flagship. These universities, along with other public flagships in the South, such as the University of Arkansas and the University of Mississippi, continue to overwhelmingly serve white students.

## Discussion

Between 2000 and 2018, growth in undergraduate enrollment at the nation's 50 public flagships, including the highly selective ones, lagged behind the increase in overall college enrollment and four-year institution enrollment. Among the flagships where enrollment grew, there was often a surge in out-of-state students, raising questions about access to high-quality postsecondary options for in-state students from less affluent families.<sup>19</sup>

High-ability students from disadvantaged backgrounds face many barriers to postsecondary enrollment. Given the pervasive nature of undermatching, policymakers and college administrators must ensure that a lack of seats at their state's premier public institutions is not another contributing factor.<sup>20</sup> Recent research has highlighted ways public flagships improve college access and outcomes for high-achieving students from disadvantaged backgrounds; state stakeholders should build upon these promising initiatives. Dynarski and coauthors find that an early commitment of free tuition at the University of Michigan significantly increased application and enrollment rates, underlining the constraining influence of complexity and uncertainty in the aid and admissions processes.<sup>21</sup> Andrews, Imberman, and Lovenheim find that the University of Texas at Austin's Longhorn Opportunity Scholars program, which recruited from high schools in low-income areas and provided scholarships and enhanced support services to these enrollees, had large positive effects on enrollment, graduation, masters' degree enrollment, and earnings.<sup>22</sup>

The data also demonstrate a need for decisionmakers to find ways to increase the number of Black students at flagships. Black students were underrepresented at flagships in 2000 and, in many cases, lost ground as their share of high school graduates increased but their share of flagship enrollees did not. An upcoming Supreme Court case could have further implications for the demographic makeup of flagships' student bodies. The court is poised to hear arguments on the use of race in selective college

---

<sup>19</sup> See Autumn A. Arnett and Jarrett Carter Sr., "Are We Seeing the Dissolution of the Public Flagship University?" Higher Ed Dive, June 22, 2017, <https://www.highereddive.com/news/are-we-seeing-the-dissolution-of-the-public-flagship-university/437869/>; and Ozan Jaquette, "State University No More: Out-of-State Enrollment and the Growing Exclusion of High-Achieving, Low-Income Students at Public Flagship Universities" (Lansdowne, VA: Jack Kent Cooke Foundation, 2017).

<sup>20</sup> Sandra E. Black, Kalena E. Cortes, and Jane Arnold Lincove, "Academic Undermatching of High-Achieving Minority Students: Evidence from Race-Neutral and Holistic Admissions Policies," *American Economic Review* 105, no. 5 (May 2015): 604.

<sup>21</sup> Susan Dynarski, CJ Libassi, Katherine Micheltore, and Stephanie Owen, "Closing the Gap: The Effect of Reducing Complexity and Uncertainty in College Pricing on the Choices of Low-Income Students," *American Economic Review* 111, no. 6 (June 2021): 1721.

<sup>22</sup> Rodney J. Andrews, Scott A. Imberman, and Michael F. Lovenheim, "Recruiting and Supporting Low-Income, High-Achieving Students at Flagship Universities," *Economics of Education Review* 74 (February 2020): 101923.

admissions. The elimination of affirmative action since the 1990s has led to persistent declines in the share of underrepresented minorities in public flagships, where alternative policies could not fully compensate for race-based affirmative action.<sup>23</sup> Without intentional state action, representation at flagship universities may get worse.

One potentially promising solution that deserves more research emerged during the pandemic. Many colleges have overhauled their admissions requirements, moving away from college entrance tests such as the SAT and the ACT, a trend that accelerated because of the pandemic. The impact of test-optional policies on enrollment at public flagships is an open question. Though earlier literature found these policies improved selectivity, rather than diversity, at liberal arts colleges,<sup>24</sup> a recent study investigating a broader sample of 100 private institutions unearthed significant positive impacts on racial and economic diversity.<sup>25</sup> In view of stagnant enrollment of Black students at the nation's flagships, test-optional policies by selective public universities, including the University of California system, might have far-reaching effects.

Finally, the increased uncertainty surrounding the pandemic and resultant migration of international students may reduce the reliance of the country's top flagships on enrollment from outside the country. With large and persistent gaps in representation of Black and Hispanic students at many of these elite campuses, it remains to be seen whether these flagships offset those enrollment losses through increased access for out-of-state students, admit more in-state students, or simply reduce their capacity. Will public flagships fulfill their mission to be the primary high-quality postsecondary destinations for in-state residents of all means?

---

<sup>23</sup> Mark C. Long and Nicole A. Bateman, "Long-Run Changes in Underrepresentation after Affirmative Action Bans in Public Universities," *Educational Evaluation and Policy Analysis* 42, no. 2 (2020): 188, <https://doi.org/10.3102/0162373720904433>.

<sup>24</sup> Andrew S. Belasco, Kelly O. Rosinger, and James C. Hearn, "The Test-Optional Movement at America's Selective Liberal Arts Colleges: A Boon for Equity or Something Else?" *Educational Evaluation and Policy Analysis* 37, no. 2 (2015): 206, <https://doi.org/10.3102/0162373714537350>.

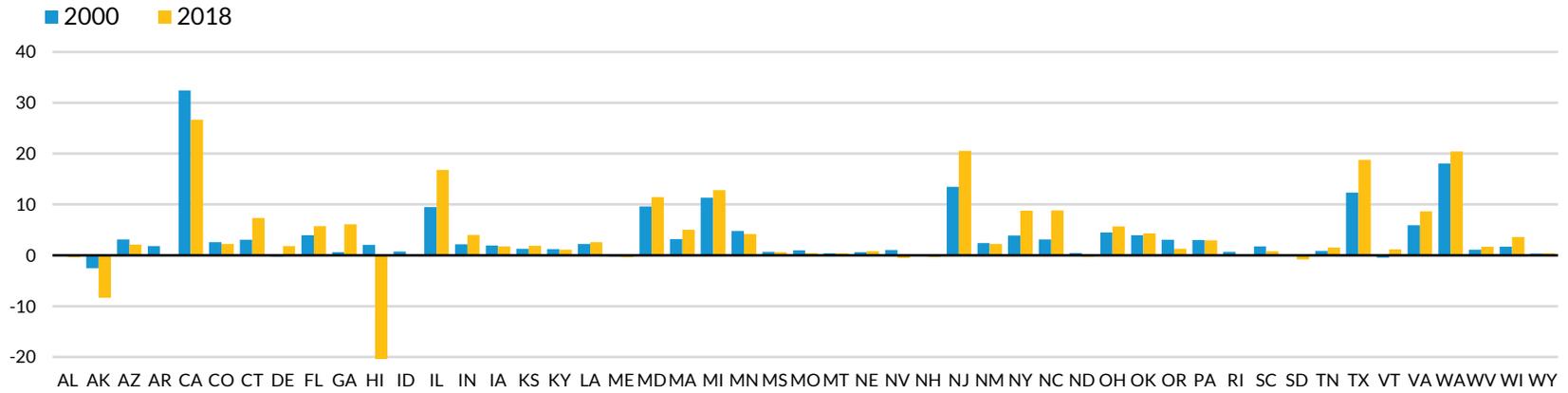
<sup>25</sup> Christopher T. Bennett, "Untested Admissions: Examining Changes in Application Behaviors and Student Demographics under Test-Optional Policies," *American Educational Research Journal* 59, no. 1 (2022): 180, <https://doi.org/10.3102/00028312211003526>.

FIGURE 5A

**Overrepresentation of Students in Public Flagship Universities, 2000 and 2018**

*Percentage-point difference between share in flagship undergraduate enrollment and share among high school graduates*

Asian students



White students

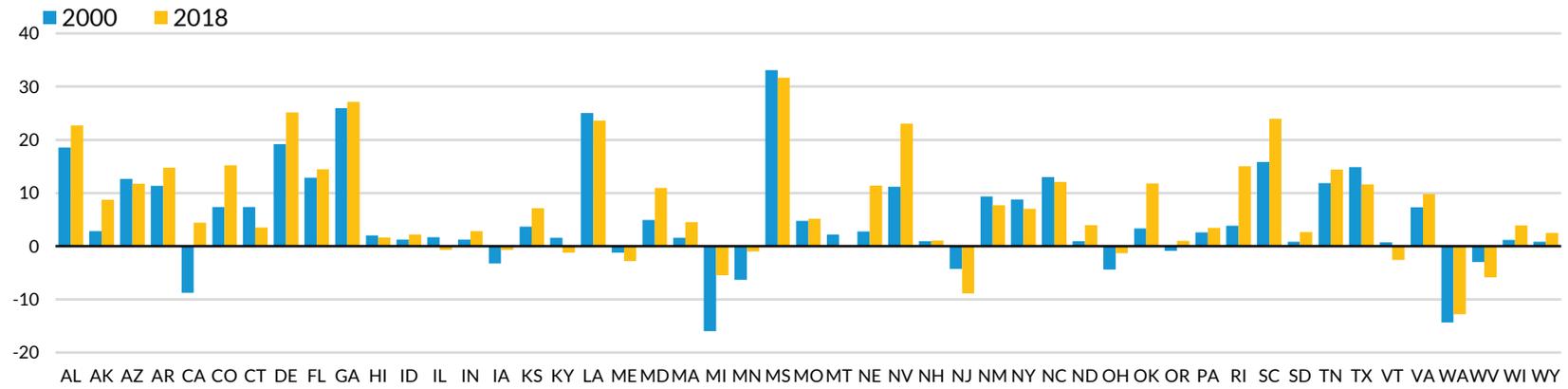
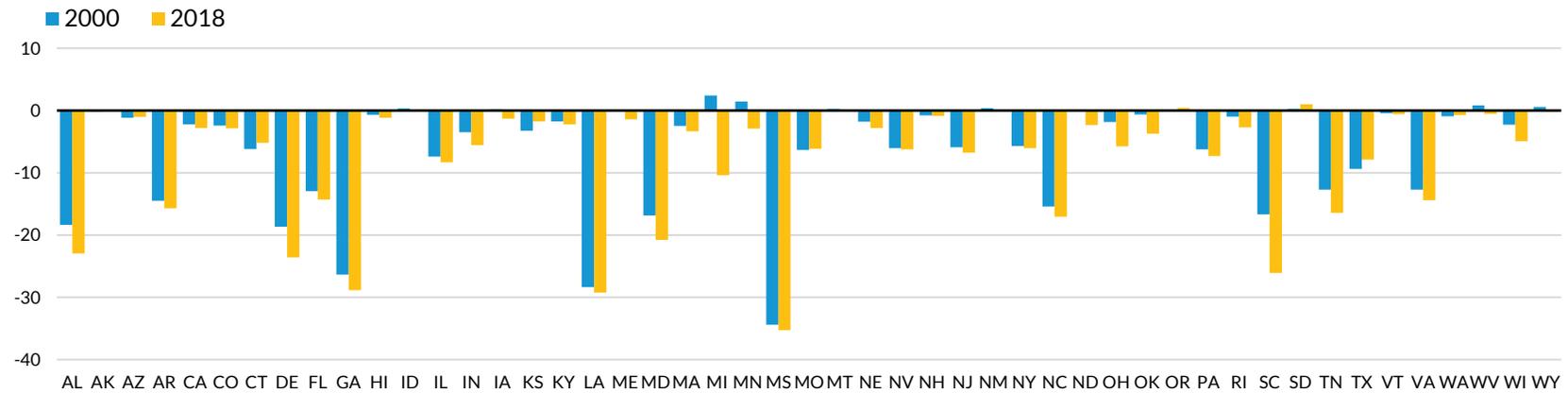


FIGURE 5B

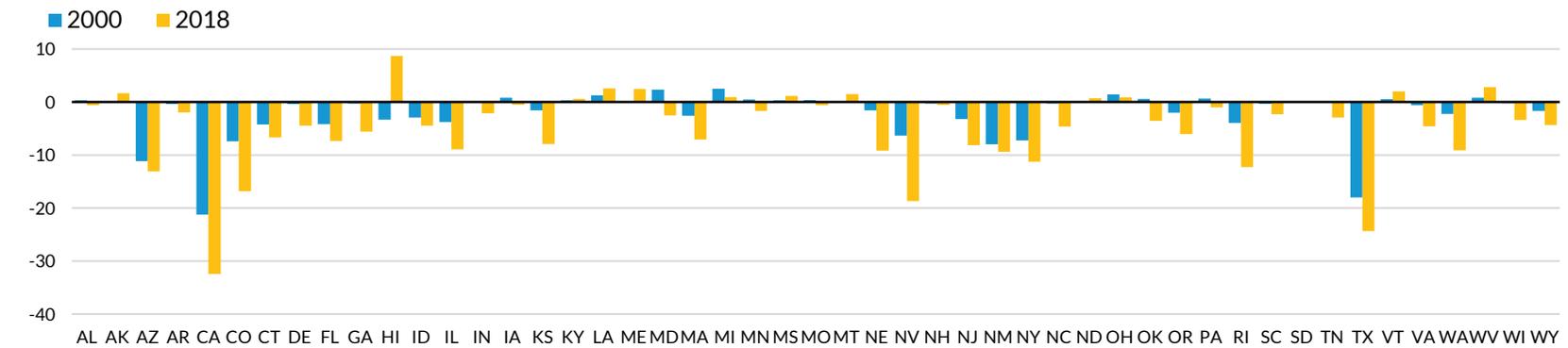
**Overrepresentation of Students in Public Flagship Universities, 2000 and 2018**

Percentage-point difference between share in flagship undergraduate enrollment and share among high school graduates

Black students



Hispanic students



URBAN INSTITUTE

Sources: Authors' calculations from Integrated Postsecondary Education Data System data via the Urban Institute's Education Data Portal. Additional data on high school graduates are obtained from the Digest of Education Statistics.

*Joydeep Roy is a visiting professor of economics and education at Teachers College, Columbia University. Jingyi Su is a graduate student of economics and education at Teachers College, Columbia University.*

## **Acknowledgments**

This essay was funded by the Walton Family Foundation and the Bill & Melinda Gates Foundation as part of the Learning Curve essay series. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute’s funding principles is available at [www.urban.org/fundingprinciples](http://www.urban.org/fundingprinciples).



500 L'Enfant Plaza SW  
Washington, DC 20024

[www.urban.org](http://www.urban.org)

## **ABOUT THE URBAN INSTITUTE**

The nonprofit Urban Institute is a leading research organization dedicated to developing evidence-based insights that improve people’s lives and strengthen communities. For 50 years, Urban has been the trusted source for rigorous analysis of complex social and economic issues; strategic advice to policymakers, philanthropists, and practitioners; and new, promising ideas that expand opportunities for all. Our work inspires effective decisions that advance fairness and enhance the well-being of people and places.

Copyright © October 2022. Urban Institute. Permission is granted for reproduction of this file, with attribution to the Urban Institute.