# **Opportunity Adrift**

Our Flagship Universities Are Straying From Their Public Mission



ANUARY 2010

#### TO THE POINT

- Public flagships and other research institutions spend hundreds of millions of dollars every year to aid wealthy students who don't need it, while providing inadequate support to low-income and minority students who do.
- Although low-income students receive higher grant awards than wealthy students on average, flagships spend almost exactly the same amount aiding students in the top two quintiles of family income as they do on students in the bottom two quintiles.
- Some flagships have boosted access and success for low-income and minority students. A look at their performance and progress appears on pages 16-22.

Public flagship universities provide excellence to students who cannot afford high-quality private institutions. Yet many of these universities direct aid to wealthy students who will attend college without it. Meantime, many high-achieving minority and poor students wind up in lesser institutions or do not attend college at all. In fact, some low-income students who literally cannot afford to attend college without a grant must find a way to finance the equivalent of 70 percent of their family's annual income. Some flagships are stepping up to the challenge and focusing on access and success. An account of their performance and progress appears at the end of this report.

#### **CHOOSING EXCELLENCE AND OPPORTUNITY**

America's public research universities are a national treasure. Created by an act of Congress during the darkest days of the Civil War, these institutions were designed with lofty aims: to provide education of the highest quality to young Americans whose families could not afford the costs of high-quality private higher education.

I was one of the fortunate. With two degrees from public research universities in my home state of California, this granddaughter of Mexican and European immigrants joined thousands of other young people of modest means who took advantage of the immense intellectual resources at these institutions, literally learning our ways to leadership roles in business, government, and the academy.

Over time, however, public research universities including state "flagship" universities—have drifted away from their historic mission of serving students like us. Instead of a student body that looks like the young people in their respective states, these *public* institutions serve student populations that look increasingly like those of their private counterparts. No longer widely accessible, their treasure is bestowed disproportionately on the children of America's economic and political elites.

Back in 2006, we took a close look at this situation and shared the results of our analysis in a report called "Engines of Inequality," which focused largely on state flagships. That report reinforced some of what people within those universities already believed: that a confluence of forces beyond their control—including poor-quality urban schools, declining state and federal support for need-based student aid, and rapidly escalating tuition—contributed mightily to this problem. But we also dared to do something deeply

uncomfortable to many within these institutions: We held up a mirror and showed how choices *they* made contributed mightily to the problem, as well.

Nowhere was this more evident than in their spending on student financial aid. Then and now (yes, even now in the midst of grave financial crises), public research universities are among the wealthiest of all institutions. They receive larger public subsidies than other colleges. They provide more grant aid to their undergraduates from their own resources than those students receive from any other source—federal, state, or private. And *they* decide on whom to spend that aid.

During times of rapid increases in the price of college, leaders of these universities could have chosen to deploy their own aid resources in ways that cushioned families near the bottom of the economic ladder. But instead they chose differently, spending hundreds of millions of dollars every year to attract students who had no financial need whatsoever.

Following the release of "Engines of Inequality," many of the universities described in our report announced initiatives to attract and support more low-income and/or minority students. Institutional leaders gave the initiatives impressive names and trumpeted them in the press. Not



surprisingly, we are often asked whether these initiatives are resulting in entering and graduating classes in these institutions that are more broadly representative of America.

This report seeks to answer that question.

Frankly, we were tempted to duck the question for at least a while. Today, many of these institutions are in crisis. Big cuts in state support have eaten away at their budgets, often leading to large tuition increases. Even with increased tuition revenues, though, public universities simply cannot keep pace with the rapid increases in spending of private research universities, rendering the publics less and less competitive in almost every respect.

We are deeply sympathetic to the current plight of these institutions and believe strongly in

the importance of a robust public research university sector. And we support their call for increased state investments. If leaders of public research universities are going to argue for expanded public support, however, they can't keep turning their backs on the "public" part of their mission. They can't keep advancing their cause on the grounds that, unlike their private counterparts, their students "look like America,"<sup>1</sup> because they don't. And they can't remain quiet in the face of the fast-gathering but ill-conceived consensus that low-income and minority students "belong" in the community colleges.

If the academic and cultural environment of research universities is good for children of the rich and white, then it is good for children of the poor and children of color, too. Research universities that want public support should compete for high-achieving low-income students and students of color as aggressively as they compete for faculty, for research dollars, and for students whose SAT scores will help their institutions look even better in the *U.S. News & World Report* rankings than they already do. Right now,

many of those high-achieving minority and poor students are ending up in lesser institutions or not going to college at all. When that happens, everybody loses.

As this new report shows, some of the nation's flagship universities appear to be stepping up to this challenge. They have indeed focused on access and success of low-income students and students of color.

But even as they argue for expanded public support, far too many of these universities have made other choices. Though they are subsidized by taxes paid by all of the residents in their states, that is where their "public" status ends. In a country whose ever-increasing stratification cries out for more engines of opportunity, these institutions remain engines of inequality.

We fervently hope that the leaders of these critically important institutions—as well as the policymakers who fund them—will choose differently in the years ahead. The health of our democracy depends on it.

Kati Haycock President, Education Trust Washington, D.C.

# **Opportunity Adrift**

Our Flagship Universities Are Straying From Their Public Mission

#### BY KATI HAYCOCK, MARY LYNCH, AND JENNIFER ENGLE

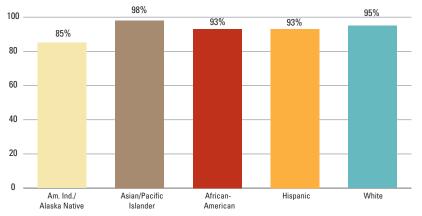
any in higher education were caught by surprise in 2009 when the nation's governors and chief state schools officers announced their intention to adopt common academic standards that aim at college readiness.

In truth, however, this tide has been building for years.

It started back in the 1980s, when the National Commission on Excellence in Education decried declining standards in American high schools and called on all students to take a more rigorous academic program. Every year since then, more students have completed such courses as Algebra II and trigonometry, even calculus (Figure 1).<sup>2</sup> More than two-thirds of all students now complete at least biology and either chemistry or physics. Some 20 states have even adopted the college-preparatory curriculum as the default curriculum for all students.

More students, too, are completing the Advanced Placement and International Baccalaureate courses that used to be taught only to a select few. Indeed, over the past decade, the fastest growing part of the high school curriculum has been college-level courses!

#### Figure 1: Percentage of Graduating High School Seniors Who Took at Least Algebra II, 2003-04



Source: "Academic Pathways, Preparation, and Performance: A Descriptive Overview of the Transcripts from the High School Graduating Class of 2003-04," National Center for Education Statistics, November 2006.

In survey after survey, students are making the intention behind all this activity clear: They plan to go to college. College aspirations are rising for all groups of students, but the growth in college orientation among low-income and minority students has been nothing short of stunning.<sup>3</sup> Perhaps more than any others, these students know that a college education is their best chance, if not their only chance, to enter the American mainstream (Figure 2).<sup>4</sup>

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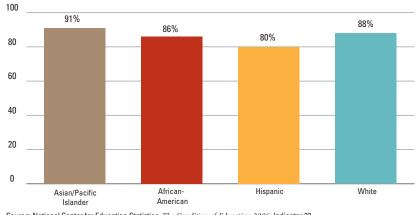


Figure 2: Percentage of 12th Grade Students Who Plan to Attend College, 2003-04

Source: National Center for Education Statistics. The Condition of Education 2006, Indicator 23.

But just as increasing numbers of low-income students and students of color are turning toward college, many colleges are turning away from them. Driven by commercial ranking systems that reward them more for who they exclude than for who they educate, and anxious to attract the out-of-state and other full-pay students who can help make up for declining state investments, public research-extensive universities have become less and less representative of the high school graduates in their states.

Trends among flagship and other public research-extensive universities—a category that includes 46 of the 50 flagships, along with 56 other public research-extensive universities-are particularly disturbing. These universities were founded to provide an "uncommon education for the common man." They were charged with creating avenues for upward mobility, and the data over the years suggest that they took this responsibility more seriously in the past.

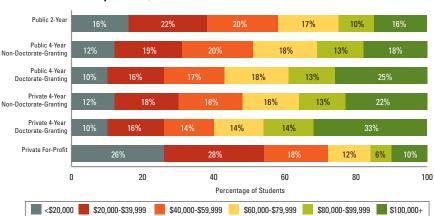
No longer.

• Today, among dependent students, those from families earning less than \$30,000 per year comprise 20 percent of college students but only 13 percent of students in public research-extensive universities.

• At the other end of the spectrum, students from families earning \$115,000 or more comprise 30 percent of the students in these universities, but only 20 percent of college students.<sup>5</sup>

Though these institutions were created to provide excellence to students who couldn't afford to attend high-quality private institutions, their student populations have come to resemble the student population their private counterparts serve (see sidebar on the next page). Sadly, a recent report from the College Board found almost this same pattern when it looked at public and private doctorate-granting institutions, a slightly different set of universities from the flagships and other research-extensive universities that are the focus of this paper (Figure 3).6

- At private doctorate-granting universities, 10 percent of students came from families earning less than \$20,000 annually, and 16 percent came from families earning \$20,000 to \$40,000.
- At public doctorate-granting universities, the same proportion of students-10 percent and 16 percent-had family incomes of less than \$20,000 and from \$20,000 to \$40,000, respectively.



**Figure 3: Family Income Distribution of Dependent Students** Within Postsecondary Sectors, 2003-04

Source: Baum, Sandy, and Jennifer Ma, "Education Pays," College Board, 2007

#### Which Universities Are Public?

Founded to provide "an uncommon education for the common man,"\* many flagship universities have drifted away from their historic mission. Their students not only don't look much like the young people in the states they serve, but they also don't look much different from those who attend elite private research universities.

Twenty-two states, have both a public flagship and a private university ranked in the top half of the U.S. News list of "national universities." Comparing student enrollments in these pairs of institutions side by side leads us to ask the question, "Which **Universities Are Public?**"

In 15 of the 22 states, the top-ranked private institution enrolls a higher proportion of minority students than the public flagship. On average, the privates beat the publics by four percentage points. The situation reverses when it comes to the enrollment of low-income students. On average, about 21 percent of the students in these 22 flagships are low-income, compared with 15 percent of those in the private research universities.

State	Public Flagship	% URM	% Pell	Top-ranked Private	% URM	% Pell
AL	The University of Alabama	11%	19%	Samford University	6%	13%
CA	University of California-Berkeley	17%	33%	Stanford University	26%	14%
C0	University of Colorado at Boulder	9%	14%	University of Denver	13%	15%
FL	University of Florida	30%	23%	University of Miami	33%	19%
GA	University of Georgia	9%	14%	Emory University	18%	15%
IL	University of Illinois at Urbana-Champaign	16%	17%	University of Chicago	22%	14%
IN	Indiana University-Bloomington	8%	16%	University of Notre Dame	15%	10%
LA	Louisiana State University	13%	17%	Tulane University	11%	17%
MA	University of Massachusetts Amherst	10%	23%	Harvard University	22%	15%
MD	University of Maryland-College Park	22%	17%	Johns Hopkins University	15%	11%
M0	University of Missouri-Columbia	10%	17%	Washington University in St. Louis	16%	8%
NC	University of North Carolina at Chapel Hill	19%	15%	Duke University	17%	11%
NH	University of New Hampshire-Main Campus	5%	16%	Dartmouth College	21%	16%
NJ	Rutgers University-New Brunswick	19%	39%	Princeton University	23%	11%
NY	State University of New York at Buffalo	13%	31%	Columbia University	28%	18%
OH	Ohio State University-Main Campus	10%	23%	Case Western Reserve University	11%	19%
OK	University of Oklahoma Norman Campus	19%	23%	University of Tulsa	16%	18%
PA	Pennsylvania State University-Main Campus	10%	27%	University of Pennsylvania	20%	11%
TN	The University of Tennessee	11%	22%	Vanderbilt University	20%	12%
ТΧ	The University of Texas at Austin	27%	24%	Rice University	23%	11%
UT	University of Utah	9%	25%	Brigham Young University	4%	32%
WI	University of Wisconsin-Madison	8%	13%	Marquette University	11%	13%
Average		14%	<b>21</b> %		18%	15%

#### In many states, the selective private university is more diverse than the public flagship.

Green indicates institution has a higher or equal percentage of underrepresented minority students or Pell Grant recipients 📕 Red indicates institution has a lower percentage of these students

\* Tobin, Eugene M. "The Modern Evolution of America's Flagship Universities." In Crossing the Finish Line, by William G. Bowen, Matthew M. Chingos, and Michael S. McPherson. Princeton, N.J.: Princeton University Press, 2009.

#### **MOSTLY POOR PREPARATION?**

Within public research universities, many would like to think that the underrepresentation of low-income students, as well as similar underrepresentation of students of color, stems mostly from poor preparation of students in high school. They are not entirely wrong.

Despite their desire to earn at least a bachelor's degree, low-income students and students of color are more likely to attend poor-quality schools that spend less on their education, assign them the least qualified teachers, and expect less academically of them (Figure 4). Not surprisingly, then, fewer of these students meet the standards for entry into research-extensive universities than is typical among their more affluent peers.

#### Figure 4: Per-Pupil State and Local Funding Gaps Between Districts, 2005-06

	Average Per-Pupil Funding	Differences in Funding Per Pupil*
High-poverty districts	\$8,809	-\$773
Low-poverty districts	\$9,582	-\$/75
High-minority districts	\$8,733	¢1 100
Low-minority districts	\$9,855	-\$1,122

\* A negative number indicates that high-poverty or high-minority districts receive fewer state and local dollars per student than lowpoverty or low-minority districts.

Source: Education Watch State Reports. The Education Trust. April 2009.

That said, mountains of research—discussed in some detail later in this report—tell us that there are far more poor and minority students who do have what it takes to succeed at these institutions but who never get a chance to attend. Indeed, among the best prepared students in the country, those from low-income families enter selective colleges at half the rate of similarly prepared students from high-income families.7

Where do these high achievers go? Some don't go to college at all. Others enter open-access four-year colleges or community colleges-in other words, schools they could have attended even if they hadn't cracked a book in high school.

#### THE EFFECT OF DECLINING GOVERNMENT AID

But isn't this pattern—which the experts call "undermatching"—caused by inadequate government-funded financial aid? Certainly, many within public research universities think so.

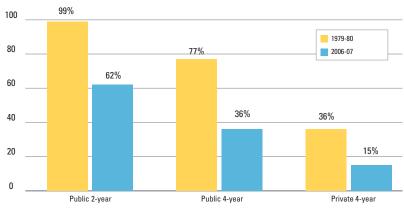
Once again, they are not all wrong. Though federal and state governments alike have boosted spending on student aid over the past decade, an eversmaller fraction of those dollars are going to students based on need.

- Pell Grants—the main federal grant program for students from lowincome families-once were calibrated to cover about 80 percent of the cost of attending a public four-year college; today, they cover only 36 percent of the cost (Figure 5).
- There also has been a shift toward tuition tax credits and tax deductions. and the major beneficiaries of this relief are middle-class families.

The pattern with state financial aid dollars isn't much different. Over the past ten years, the amount of grant aid states disbursed based on need increased by 60 percent, while the amount given out without consideration of financial need increased by 203 percent.8

So yes, skewed government aid policies are also part of the problem.

Figure 5: Total Cost of Attendance Covered by the Maximum Pell Grant Award



Source: American Council on Education, "Status Report on the Pell Grant Program," 2007.

#### INSTITUTIONAL AID SHIFTS AWAY FROM LOW-INCOME STUDENTS

Flagships and other public research-extensive universities, however, are our wealthiest public institutions. Their students receive more grant aid directly from *them* than they do from either federal or state sources. As the buying power of federal and state need-based grant programs declined relative to the fast-increasing price of college attendance, these institutions—perhaps alone among all public universities—*could* have cushioned low-income students from the effects of higher college prices.

But they chose differently. In recent years, their shift from aiding lowincome students was even more pronounced than the shift from either state or federal sources. And while the effect of that shift has abated somewhat in the past three years, these universities continue to pour hundreds of millions of dollars every year into wooing students who have no financial need who will attend college regardless of whether they receive aid.

In 2007, the research-extensive public universities spent a combined total of \$361 million on grant aid for students from families earning more than \$115,000 per year and another \$400 million on students from families earning from \$80,400 to \$115,000 (Figure 6).

Perhaps those expenditures wouldn't seem so obscene had these institutions first met the needs of low-income students. But the typical low-income student in these institutions instead was saddled with an unimaginable burden: an "unmet" need roughly equivalent to 70 percent of his or her family's annual income.

#### Figure 6: Change in Aggregate Institutional Grant Aid for Students From Highest Income Quintiles Attending Public Research-Extensive Universities, 2003-07

(Dollar amounts in millions; adjusted for inflation)

Family Income (in 2007 dollars)	2003 (in 2007 dollars)	2007 (in 2007 dollars)	Amt. Change 2003-07	Pct. Change 2003-07
\$80,401- \$115,000	\$341.6	\$399.9	\$58.4	17%
\$115,000+	\$282.5	\$361.4	\$78.9	28%

Source: Ed Trust analysis of NPSAS:04 and NPSAS:08 data

#### THE COMMUNITY COLLEGE OPTION

Aren't community colleges the perfect solution for educating students from low-income families? Many people certainly seem to think so. After all, lowincome students can start in a two-year college and continue their education in a four-year college later on.

At first blush this looks like a win-win approach. Because community colleges cost less, students end up with less debt. And because state subsidies per student are lower in community colleges, these institutions are perfect vehicles for states to increase degree attainment at less taxpayer expense.

Why worry, then, about getting more poor and minority students into highly selective institutions, where they'll be "overmatched" and feel less comfortable. Right?

Not exactly—or at least not until we figure out how to radically increase success rates in community colleges. In the meantime, this strategy works neither for students nor for states interested in increasing degree attainment. Longitudinal studies conducted during the 1990s suggest that fewer than onequarter of students who start at a community college with the intention of transferring to a four-year school actually earn a bachelor's degree within six years.<sup>9,10</sup> For minority and low-income students, success rates are even lower. More recent data paint an even more troubling portrait.

- A 2009 Education Trust report, "Charting a Necessary Path," that examined success rates in 24 public higher education systems found that fewer than 24 percent of the underrepresented minorities who begin in two-year colleges complete anything within four years of entry—a certificate, degree, or a transfer.
- Even among the 12 percent who transfer to a four-year college, only 55 percent earn bachelor's degrees within six years of transferring, the report found.
- In sum, then, only about 7 percent of minority students who begin in a two-year college earn a bachelor's degree from any institution in these large systems within ten years of starting college—a degree rate far lower than among those who begin even in nonselective four-year colleges.<sup>11</sup> Low success rates are the main reason why certificates and two-year degrees from "low cost" institutions can end up costing students and taxpayers even more than degrees from four-year colleges. A recent report from the Delta

Project on Postsecondary Education Costs, Productivity, and Accountability, "Trends in College Spending,"<sup>12</sup> makes those costs clear:

- Nationwide, community colleges' average spending per degree completed in 2006 was \$63,954—\$14,073 more than average spending per degree at a public master's college and \$7,211 more than average spending per degree at a public research college. This figure measures education and related expenses per degree completed.
- Even when adding certificates and other awards to this calculation, the cost per completion (associate's degree, certificate, or transfer) at a community college—\$42,450—is only slightly less than the cost per *completion* at a public master's college (\$48,914) or a public research university (\$55,637).

To be fair, some of the success problems in community colleges undoubtedly are attributable to the fact that community colleges receive so much less funding per student than their four-year counterparts. But to suggest that the very students on whom we have spent the least since kindergarten somehow "belong" in the institutions that virtually guarantee we will *continue to spend* less on them seems not only counterproductive but distinctly un-American.

Certainly, community colleges have a hugely important role to play in our national effort to increase postsecondary education levels. But if we are to turn around the enormous disparities in postsecondary education levels in this country, we can't leave that job to just one part of our higher education system. Every type of institution must join that effort.

And just as our flagship and other public research universities lead in so much else, they need to lead here, as well.

#### A CLOSER LOOK AT THE NUMBERS

Flagship universities are an especially important group of public research universities. Typically the oldest, largest, and most prestigious in their states, they have a long tradition of educating their state's future leaders in business, government, and academe.

Because these flagships are such important American institutions, we use a set of metrics to understand how equitably they are serving the public. A full description of these metrics and the individual flagships' performance on them appears on pages 16-22.

#### How the Flagships Rate on Access and Success

Some flagships stand out from their peers in fostering greater access for low-income and underrepresented minority students, on the relative success of those groups in earning diplomas, and on progress on both of those measures over time. For example:

- Four institutions—the University of Florida, the University of Maine, the University of Utah, and West Virginia University—won the highest marks for both their current overall performance on measures of equity and for their progress between 2004-05 and 2007-08.
- Two institutions—the University of Indiana Bloomington and the University of Michigan—received the lowest overall marks for performance and progress.
- The highest overall performer currently is the University of Maine; the lowest are the University of Georgia and the University of Mississippi.
- The biggest improver in recent years is West Virginia University, while the universities of Wyoming, and Vermont, fell backward the furthest.

Some flagships were standouts on individual measures:

- The University of Alaska Fairbanks, the University of California–Berkeley, the University of Hawaii at Manoa, the University of Massachusetts Amherst, and the University of Montana perform better than most other flagships at enrolling low-income students, when compared with other colleges and universities in their respective states.
- While the racial diversity of Florida's high school graduates has increased since 2004, the diversity of the **University of Florida** student body increased even faster, making the flagship one of the standouts for improvements in minority-student access.
- The State University of New York at Buffalo and the University of Oregon each narrowed the graduation-rate gaps between white and minority students by more than ten percentage points from 2004 to 2007

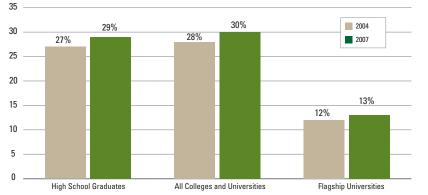
An in-depth look at the performance and progress of all the flagships appears on pages 16-22.

In 2007, the flagship universities enrolled more than 200,000 freshmen, including almost 4,500 from abroad. The class of 2007-08 included 3,000 more students who were black, Latino, or American Indian than did the entering class in 2004. However, because the overall size of the 2007-08 freshman class increased much more, the representation of minority students increased only slightly, from 12 percent to 13 percent (Figure 7).

But the proportion of blacks, Latinos, and American Indians in the high school graduating class that provided most of these freshmen climbed as well—from 27 percent in 2004 to 29 percent in 2007. In the three years since our first analysis, then, the flagships' combined performance on our minority-student access ratio increased by two percentage points, from 0.44 to 0.46, though the trend is downward from 1992, when the ratio was 0.50.<sup>13</sup> This means that the flagships are still serving less than half of the minority students that they would if race played no role in college-going patterns in their respective states. (See the "Understanding Ratios" box on this page. The minority students among entering freshmen with the percentage of those same groups among new high school graduates.)

#### Figure 7: Percentage of Entering Freshmen Who Are Black, Latino, or Native American

Beneath this average, though, are different patterns of change. From 2004



Source: Ed Trust analysis of IPEDS 2004 and 2007. Enrollments represent first-time, degree/certificate-seeking undergraduates at all U.S. institutions.

to 2007, the quartile of institutions that improved the most increased their minority access ratio at five times the average improvement rate. On the other hand, the quartile of institutions at the bottom on our progress metric actually fell backward.

Some might suggest that to expect significant improvements in just three years is naive, given the many other pressures on these institutions and the many barriers that impede progress. But that view is at odds with the data on

#### **Understanding Ratios**

A *ratio* is calculated by dividing the performance of the target group (underrepresented minority [URM] or Pell students, for example) by the performance of the reference group (non-URM or non-Pell students) on a given indicator. A ratio of less than 1 indicates that the target group lags the reference group; a ratio of 1 indicates equity between the target and the reference group.

For example, in 2007, 13.4 percent of incoming freshmen at flagship universities were underrepresented minorities, compared with 29.2 percent of high school graduates. This creates an access ratio of 0.46 (13.4%/29.2%). The ratio can be interpreted to mean that flagship universities are enrolling only 46 percent of the minority students they could be enrolling if such students entered at the same rates as other students.

#### MINORITY STUDENT ACCESS TREND

12.1 = minority students as percentage of 2004 freshmen at flagships = <b>0.44</b>
27.4 = minority students as percentage of 2004 high school graduates nationwide
$\frac{13.4}{13.4}$ = minority students as percentage of 2007 freshmen at flagships = 0.46
29.2 = minority students as percentage of 2007 high school gradu- ates nationwide
<b>Overall Trend:</b> The representation of minority students at the flagships improved slightly, with the

what some flagship universities accomplished over this period.

ratio increasing from 0.44 to 0.46.

Take, for example, the University of Florida (UF). UF is an excellent example of a flagship university that is serious about fostering both excellence and diversity—two attributes that can, and should, go hand in hand. As its mission states, UF has renewed its "commitment to serve the citizens of Florida" and is "committed to creating a community that reflects the rich racial, cultural, and ethnic diversity of the state and nation."<sup>14</sup>

This renewed focus on Florida's citizenry is evident in institutional data. Since 2004, the racial diversity of Florida's high school graduates has increased, but during the same period, the diversity of UF grew even faster.

The representation of minority students in UF's freshman class rose from 23 percent in 2004 to 30 percent in 2007. While the university still has a ways to go to reach equity and fully serve the wide array of Floridians, administrators and faculty at UF should be applauded for showing that quick, substantial improvements are possible. They have proved that flagship universities can recruit high-achieving students of color and provide them with the opportunity to fulfill their dreams.

#### ACCESS FOR STUDENTS FROM LOW-INCOME FAMILIES

Even though the flagships as a group increased the enrollment of minority students from 2004 to 2007, the enrollment of low-income students—identified by having received a Pell Grant—actually decreased (see the sidebar below). This decline of more than 7,000 Pell recipients decreased the representation of low-income students on the flagship campuses from 22 percent to 20 percent.<sup>15</sup>

#### **The Effect of Pell Grants**

The Pell Grant has long served as the cornerstone of the federal government's financial aid program. Established in 1972 as the Basic Educational Opportunity Grant, the Pell Grant has made it possible for millions of students from low-income families to attend college. In the 2007-08 academic year, \$14.7 billion in Pell Grants were disbursed to more than 5.5 million undergraduate students.<sup>i</sup>

Over the years, the purchasing power of the Pell Grant has plummeted. In 1979-80 the maximum Pell award of \$1,800 covered 77 percent of the cost of attending a four-year public college or university. By 2007-08, the maximum award of \$4,310 only covered 36 percent of those costs.<sup>v,vi</sup>

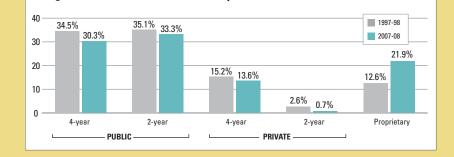
Not surprisingly, smaller proportions of low-income students enroll in four-year colleges today than they did 20 or 30 years ago. This enrollment pattern greatly reduces the likelihood that these students will ever earn a bachelor's degree. Today, 30 per-

#### LOW-INCOME STUDENT ACCESS TREND

22.1 = low-income students as percentage of 2004 students at flagships	- = 0.54		
40.8 = low-income students as percentage of 2004 students at all colleges and universities nationwide			
20.4 = low-income students as percentage of 2007 students at flagships	- = 0 52		
39.1 = low-income students as percentage of 2007 students at all colleges and universities nationwide	0.52		
Overall Trend:			

The representation of low-income students at the flagships, as compared with all other colleges and universities, decreased by two percentage points, from 0.54 to 0.52.

cent of Pell Grant recipients enroll in public four-year colleges, and 14 percent enroll in private four-year colleges. Proprietary (for-profit) institutions account for another 22 percent of Pell recipients, while the greatest share—33 percent—enroll in two-year institutions.<sup>vii</sup>



i. "2007-2008 Federal Pell Grant Program End-of-Year Report." Washington, D.C.: U.S. Department of Education, Office of Postsecondary Education, 2009.

ii. Ibid. iii Ibid

iv. Ed Trust analysis of NPSAS:08 data using NCES' online Data Analysis System (DAS)

Change in Distribution of Pell Grant Recipients, 1997-2008

v. Cook, Bryan J., and Jacqueline E. King. "2007 Status Report on the Pell Grant Program." Washington, D.C. American Council on Education, 2007.

vi. "2007-2008 Federal Pell Grant Program End-of-Year Report." Washington, D.C: U.S. Department of Education, Office of Postsecondary Education, 2009. vi. Ibid. During this period, other colleges and universities also saw declines in the representation of low-income students among their student bodies, but to a lesser extent than the flagships. As a result, the flagships' overall low-income student access ratio—which compares the representation of Pell students enrolled in the flagship with the representation of such students in all colleges in the state—decreased two percentage points, from 0.54 to 0.52.

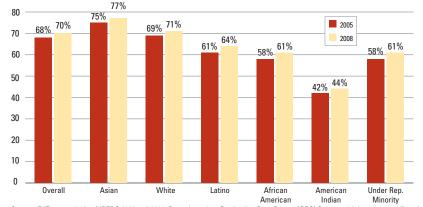
#### SUCCESS FOR LOW-INCOME AND MINORITY STUDENTS

Compared with their performance on access, flagships are more successful in guiding their students toward graduation. In 2008, minority freshmen graduated at 87 percent of the rate of white freshmen, a slight improvement over the 84 percent rate in 2005.<sup>16</sup> It is important to note that this gap-closing progress did not come at the expense of white students; rather, *all* groups graduated at higher rates in 2008 than in 2005 (Figure 8).

From 2005 to 2008, the top-improving institutions increased their minority-student success ratio by an average of 14 percentage points. Some of these already were doing well and are now doing even better. Others still aren't doing well but are making significant progress. For example, with a ratio of 0.52, the University of Alaska, Fairbanks scores in the bottom quartile for performance on minority-student success. However, it has increased its ratio from 0.38 in 2005, placing it in the highest quartile for minority-student progress. At the other end of the scale, the institutions with the greatest decreases in performance saw their ratios decline on average by about ten percentage points.

Yes, gaps still exist, but just as the nationwide trends in minority access mask the progress of individual institutions, so do these aggregate graduationrate data. When we examine data from specific institutions, we see that some are serving minority students better than others.

The State University of New York (SUNY) at Buffalo has made especially notable strides in closing its graduation-rate gaps. In 2005, minority students at SUNY Buffalo only graduated at 67 percent the rate of their white classmates, but by 2008, minority students graduated at 93 percent the rate of white students. Just as we see in the overall averages, the shrinking gap did not negatively impact white students. Rather, SUNY Buffalo's graduation rates for minority students and whites alike are above national averages, proving it is possible to combine excellence and equity and serve all students well.



#### Figure 8: Six-Year Graduation Rates at Flagships by Race/Ethnicity

Source: EdTrust analysis of IPEDS 2005 and 2008. Rates based on Graduation Rate Survey (GRS) Cohort, which represents first-time, full-time freshmen (Excludes Hawaii and Louisiana data).

# MINORITY STUDENT SUCCESS TREND58.0 = 2005 six-year graduation rate for minority freshmen<br/>at flagships69.3 = 2005 six-year graduation rate for white freshmen at flagships61.1 = 2008 six-year graduation rate for minority freshmen<br/>at flagships70.5 = 2008 six-year graduation rate for white freshmen at flagships= 0.87

#### **Overall Trend:**

The relative success of minority students, as compared with whites, improved by three percentage points, from 0.84 to 0.87.

#### A NEW MEASUREMENT OF SUCCESS: PELL GRADUATION RATES

When "Engines of Inequality" was published, data were not widely available on the success rates of low-income students. However, Congress has since passed the Higher Education Opportunity Act of 2008, which requires all fouryear colleges and universities to disclose the graduation rates of low-income students-specifically those who have received a Pell Grant. Although the requirement does not go into effect until summer 2010, many schools already have begun collecting the information. Accordingly, we requested these graduation rates from the 50 flagships and analyzed data from the 13 that were able and willing to provide the information. These 13 universities should be com-

#### **Flagships in the Access to Success Initiative**

Several flagship universities have recognized the need to increase the access and success of low-income and minority students and are making concerted efforts to improve. In particular, 12 of the flagships highlighted in this report are part of systems participating in the Access to Success Initiative (A2S).

In fall 2007, the leaders of nearly two dozen public higher education systemsall members of the National Association of System Heads-came together to form A2S. With support from The Education Trust, the chief executives of the 24 systems have agreed to pursue aggressive goals aimed at improving student success and cutting in half by 2015 the gaps in college-going and completion that separate lowincome and minority students from their peers.

These leaders recognize that increasing quality, attainment, and equity on their campuses is essential to the well-being of their states and our nation. By voluntarily addressing these challenges, these leaders are setting an example of transparency, accountability, and responsibility for the higher education community. The following flagship universities are members of systems participating in A2S:

University of Florida	University of Montana
University of Hawaii, Manoa	State University of New York at Buffalo
University of Kentucky	University of North Carolina, Chapel Hill
University of Maryland, College Park	Ohio State University, Main Campus
University of Mississippi, Main Campus	University of Rhode Island
University of Missouri, Columbia	University of South Dakota
	University of Wisconsin, Madison

mended for their willingness to be open and honest with their data before the government requires them to report it, even if the data uncover some unsettling trends.

What can we learn from the new data? On average, Pell Grant recipients' graduation rates at the flagships are lower than those of nonrecipients. The average graduation rate for Pell Grant recipients is 61 percent; for nonrecipients it is 72 percent.

Institutions have a clear opportunity to change this trend by adjusting their financial aid policies. While Pell Grants provide low-income students with much-needed financial assistance, they only cover about 36 percent of the cost of attending a four-year public college. By redirecting grant aid from the highincome students, who may love their grants but don't really need them, to the low-income students who literally cannot attend without generous support, flagship universities can have a direct effect on student success.

#### **CHOOSING DIFFERENTLY: RETHINKING STUDENT AID PRIORITIES**

When university executives propose tuition increases and governing boards approve them, they often suggest that even larger increases are necessary in order to have enough left over for financial aid. When most folks hear that, they think, "That makes sense. Higher college costs mean we need to have extra money to help kids who can't afford those increases."

How the universities actually use those dollars makes considerably less sense. Among public colleges and universities as a whole, more than 60 percent of these "institutional aid" dollars are distributed to students without regard to their financial need.<sup>17</sup> This is a rather shocking finding in view of the widespread hardships facing America's many low-income and lower middleincome families and recent research showing that increased financial aid improves low-income students' chances of graduating but has little or no effect on the success of high-income students.<sup>18</sup>

The patterns in public research-extensive universities are equally perplexing. By looking at the distribution of financial aid by family-income quintile (Figure 9), we can examine these trends.<sup>19</sup> There is some good news since our last report: From 2003 to 2007, public research-extensive universities increased the average institutional grant award per recipient by 18 percent, from \$3,623 to \$4,267. And unlike what we found in our analysis of the 2003 data, grant

amounts increased the most—23 percent—for students in the lowest income group (Figure 10). Another spot of good news—also different from our find-ings three years ago: Average grant awards to low-income students were somewhat larger than the average grants to high-income students.

But that is where the good news ends. Today, the public research-extensive universities continue to spend massive amounts of money on students with no financial need: some \$361 million on students with annual family incomes greater than \$115,000—up from \$283 million in 2003—and an additional \$400 million on students from families with incomes between \$80,400 and \$115,000. In a spending pattern that is literally beyond belief, these institutions are spending almost exactly the same amount of money to provide grant aid to students in the top two quintiles of family income as they are spending on students in the bottom two quintiles (Figure 11).

#### Figure 9: Income Bands for Quintile Distribution of All Dependent Undergraduates, 2007-08

2007 Family Income Quintile	2007 Family Income (in 2007 dollars)
Bottom 20%	\$0 - 30,200
Second 20%	\$30,201 - 54,000
Third 20%	\$54,001 - 80,400
Fourth 20%	\$80,401 - 115,400
Top 20%	\$115,400 +

Source: Lutz Berkner analysis of NPSAS:08 data.

Note: Income bands based on all dependent undergrads, regardless of attendance status.

#### Figure 10: Change in Institutional Aid to Grant Recipients at Research-Extensive Universities (REUs) by Family Income, 2003-07 (Adjusted for inflation)

Family Income Quintile	2003 (in 2007 dollars)	2007 (in 2007 dollars)	Amt. Change 2003 - 07	% Change 2003 - 07
Bottom 20%	\$3,982	\$4,910	\$928	23%
Second 20%	\$4,169	\$4,382	\$213	5%
Third 20%	\$3,805	\$3,805	\$0	0%
Fourth 20%	\$4,175	\$4,186	\$10	0%
Top 20%	\$4,342	\$4,158	-\$184	-4%
All Incomes	\$3,623	\$4,267	\$644	18%

Source: Ed Trust analysis of NPSAS:04 and NPSAS:08 data.

This choice—and let's be clear, it is a choice—is particularly perplexing given the unmet need among the low-income students who enroll in these institutions (not to mention those who might have enrolled had financial aid offers been more generous). Yes, from 2003 to 2007, public research-extensive universities increased the size of average grants to students from families in the bottom quintile of family income by \$928. But college prices increased even more, and average income among bottom-quintile families actually declined.

As a result, even after all other sources of grant aid are included, students in public research-extensive universities who come from low-income families must find a way to finance an average of more than \$10,000 per year in remaining college costs—an amount equivalent to a whopping 70 percent of the annual income of a typical family in this quintile, up from 64 percent four years ago (Figure 12).

#### Figure 11: Change in Aggregate Institutional Grant Aid for REU Students by Family Income, 2003-07 (Dollar amounts in millions; adjusted for inflation)

Family Income Quintile	2003 (in 2007 dollars)	2007 (in 2007 dollars)	Amt. Change 2003 - 07	% Change 2003 - 07
Bottom 20%	\$287.5	\$394.2	\$106.7	37%
Second 20%	\$366.6	\$388.3	\$21.7	6%
Third 20%	\$283.1	\$368.4	\$85.3	30%
Fourth 20%	\$341.6	\$399.9	\$58.4	17%
Top 20%	\$282.5	\$361.4	\$78.9	28%

Source: Ed Trust analysis of NPSAS:04 and NPSAS:08 data.

#### Figure 12. Change in Percentage of Income Needed for Remaining Costs at REUs After All Grant Aid by Family Income, 2003-07

Family Income Quintile	2003 Mean Income <i>(in 2007 dollars)</i>	2007 Mean Income ( <i>in 2007 dollars)</i>	2003 % of Income	2007 % of Income
Bottom 20%	\$17,576	\$16,685	64%	70%
Second 20%	\$41,678	\$41,833	32%	35%
Third 20%	\$66,706	\$66,607	24%	25%
Fourth 20%	\$94,962	\$96,649	18%	20%
Top 20%	\$165,487	\$170,817	11%	12%

Source: Ed Trust analysis of NPSAS:04 and NPSAS:08 data.

On the other end of the scale, families earning more than \$115,400 actually have a combined average of \$17,488 in *overmet* need, meaning that grant aid, together with the "Expected Family Contribution" (calculated by the federal government), total to *more* than the cost of attending a public research-extensive university (Figure 13).

In the end, we place the biggest burden on the students we ought to be helping the most, forcing them to work an excessive number of hours and take out loans in amounts their families can't even imagine—all of this "necessary" to provide high-income students with grant aid they don't financially need and that will not advance their chances of graduating.<sup>20</sup>

Not surprisingly, the increase in the cost burden on low-income students attending public research-extensive universities coincided with an enrollment shift away from low-income and moderate-income families (those earning less than \$80,400) toward more affluent families. From 2003 to 2007, the percentage of students coming from families in the top two income quintiles

### Figure 13. Unmet Need at REUs After Grant Aid and Expected Family Contribution (EFC), by Family Income, 2007

Family Income Quintile	2007 Price of Attendance (in 2007 dollars)	<b>2007 EFC</b> (in 2007 dollars)	2007 Grant Aid (in 2007 dollars)	2007 Unmet Need (in 2007 dollars)
Bottom 20%	\$20,764	\$1,262	\$9,056	\$10,445
Second 20%	\$20,610	\$4,053	\$6,177	\$10,380
Third 20%	\$20,464	\$9,924	\$3,692	\$6,848
Fourth 20%	\$21,430	\$17,953	\$2,371	\$1,106
Top 20%	\$21,961	\$37,424	\$2,025	-\$17,488

Source: Ed Trust analysis of NPSAS:08 data; Methodology, Postsecondary Education Opportunity.

#### Figure 14: Change in Percentage of Students at REUs by Family Income, 2003-07

Family Income Quintile	2003	2007	Percentage Point Change, 2003 - 07
Bottom 20%	14%	13%	-1%
Second 20%	16%	15%	-1%
Third 20%	20%	18%	-2%
Fourth 20%	24%	25%	1%
Top 20%	27%	30%	3%

Source: Ed Trust analysis of NPSAS:04 and NPSAS:08 data.

increased, while the percentage in the bottom three quintiles decreased (Figure 14). This shift only exacerbated the already substantial shifts away from lowincome students toward high-income students. From 1995 to 2003, the representation of students from families earning less than \$20,000 per year declined from 14 percent to 9 percent of all students in these institutions, and students from families earning between \$20,000 and \$39,999 declined from 19 percent to 15 percent. During the same period, the representation of students from families earning more than \$100,000 increased by 12 percentage points.<sup>21</sup>

But what about all those grand promises many institutions made after publication of Dan Golden's *The Price of Admission* brought so much attention to the pattern of legacy admissions and "buying up" students in elite private colleges, and "Engines of Inequality" highlighted similar practices in public research-extensive universities? Some of these institutions may indeed have reordered their aid priorities, but we can't be sure because institution-specific data are unavailable (see the sidebar on the next page). What we can be sure of, though, is that public flagships continue to spend hundreds of millions of dollars every year on students who don't need aid, while providing inadequate support to those who do.

#### **HIGH-ACHIEVING STUDENTS COME FROM MANY BACKGROUNDS**

What also seems clear is that flagships and other public research-extensive universities are still far better at competing for high achievers from high-income families than they are at competing for high achievers from low-income families. Better financial aid policies are a part of what needs to change, but financial aid alone won't do the trick.

Among students from families earning more than \$100,000, the default choice for college is now public, four-year, doctorate-granting institutions. Approximately one-third (32 percent) of these students already enter such institutions, with another 12 percent entering private doctorate-granting institutions,<sup>22</sup> for a total of 44 percent enrolling in the very institutions that not only have the most status but from which students are also most likely to graduate (Figure 15).

#### **Financial Aid Pledges Pave the Way for Many Students**

At least nine flagship universities have made financial aid pledges to low-income and moderate-income students. The details of each institution's pledges vary, but they generally aim to reduce or eliminate the need for student loans by ensuring that a combination of Expected Family Contribution (EFC), grant aid, and work-study income will cover all or most of the cost of attendance.

Some of these pledges, including those of the University of Virginia, Indiana University, and the University of Florida, ensure that the lowest income students will pay nothing beyond their EFC. However, not all pledges go that far. At some flagships, students from families earning less than \$20,000 annually must pay their EFC and up to an additional \$6,294 per year, despite the institution's financial aid.

These pledges are intended to provide students with a sense of financial security early in their academic careers so that they are more confident about their ability to continue their education. The pledge assures them that if they work hard in high school and are accepted to the flagship, they then will be able to attend, regardless of their financial circumstances. These programs are promising, but only time will tell whether they attract more low-income students and enable them to earn degrees.

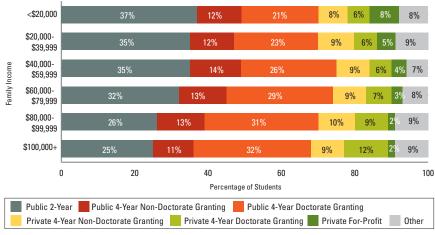
				Net Cost, by Family Income**		
Institution	Maximum Family Income	Role of Loans in Covering Calculated Need*	Expenses Not Covered	Family Income < \$20,000	Family Income < \$40,000	
Indiana University, Bloomington	185% of Federal Poverty Level <sup>‡</sup>	No Loans	All expenses covered	\$0	no info	
University of Arizona	\$42,400	No Loans	Transportation and Personal	\$6,126	\$7,530	
University of Florida	\$40,000 <sup>†</sup>	No Loans	All expenses covered	\$0	\$1,490	
University of Illinois at Urbana - Champaign	Federal Poverty Level <sup>‡</sup>	No Loans	Transportation and Personal	\$4,110	no info	
University of Maryland, College Park	EFC of 0 by Federal Methodology / No Income Limit	No Loans / Loan Limits	All expenses covered	\$2,000	no info	
University of Michigan, Ann Arbor	EFC of 0 by Federal Methodology <sup>+</sup>	No Loans	All expenses covered	\$2,500	no info	
University of North Carolina, Chapel Hill	200% of Federal Poverty Level <sup>‡</sup>	No Loans	All expenses covered	\$1,700	\$2,932	
University of Tennessee	150% of Federal Poverty Level‡	No Loans	Transportation, Personal, Books, and Supplies	\$6,294	no info	
University of Virginia	200% of Federal Poverty Level <sup>‡</sup> / No Income Limit	No Loans/ Loan Limits	All expenses covered	\$0	\$7,568	

#### Summary of Financial Aid Pledges at Public Flagship Universities

\* Some families may need to borrow to cover any expected family contribution (EFC), even if the institution does not include loans in the financial aid package.

- \*\*Some of the institutions listed require some student contribution of earnings from academic year work, usually a federal work-study job or summer work.
- † In-state students only; ‡ 2007 HHS Poverty Guidelines

Source: Financial Aid Pledges to Reduce Student Debt, Project on Student Debt, The Institute for College Access and Success. www.projectonstudentdebt.org/pc\_institution.php



#### Figure 15: Dependent Students' Choice of Postsecondary Sector by Family Income, 2003-04

Notes: The "Other" category includes students who were enrolled in public less-than-two-year institutions, private not-for profit less-than-four-year institutions, and those who were enrolled in more than one institution. Percentages may not add up to 100 due to rounding.

Source: Baum, Sandy, and Jennifer Ma. Education Pays. College Board, 2007.

For students from families earning less than \$20,000 per year, on the other hand, the default choice is quite different. Some 37 percent enter community colleges, and another 8 percent enter private for-profit institutions—the very institutions from which students are least likely to earn a degree.<sup>23</sup>

Certainly, there are proportionately fewer high achievers among low-income students than there are among students from more well-to-do families. But research consistently demonstrates that even highly qualified students in the lowest income quartile are far more likely than their counterparts from high-income families to attend schools below their qualifications.<sup>24,25,26</sup> The most recent analysis suggests that among students eligible for entry into highly selective schools, about 60 percent of low-income students attend less selective institutions or no college at all, while only 27 percent of the highest income students "undermatch" in this way (Figure 16).<sup>27</sup>

## Figure 16: Type of Institution Attended by Students Eligible for Admission to Highly Selective Institutions, by Income, 1999

Income Quartile	Highly Selective Institution	Moderately Selective Institution	HBCU	Two-Year Institution	No College
Bottom 25%	41%	37%	4%	6%	13%
Second 25%	46%	36%	1%	6%	11%
Third 25%	58%	31%	1%	3%	7%
Top 25%	73%	20%	0%	1%	6%

Source: Bowen, Chingos, and McPherson, 2009.

How many high achieving low-income students are out there? Using estimates from the most recent National Postsecondary Student Aid Study (NPSAS), it seems that at least 177,000<sup>28</sup> low-income high school graduates scored high enough on the SAT/ACT<sup>29</sup> to earn entry into a public research university. In fact, this number likely underestimates the actual number of high-achieving, low-income students who graduate high school because it only includes students who took the SAT or ACT *and* enrolled in some form of postsecondary education directly after high school. Research tells us that many low-income students never take a college entrance exam and/or do not enroll in college directly following high school, if at all.<sup>30,31</sup>

Of these qualified 177,000 low-income students, how many actually enrolled in public research-extensive universities? Only about 59,000.<sup>32</sup> Certainly, some of these well-qualified students go to selective private institutions, but those numbers hardly exhaust the pool. No matter how you measure it, then, there are probably more than 100,000 low-income high school graduates each year who could enter public flagships each year—but don't.

The effects of continued stratification of this sort are obvious in a recent report from the College Board that examined educational outcomes for students with high performance in mathematics. Eight years after graduating from high school, 74 percent of top performers from high-income families had completed at least a bachelor's degree. But among top performers from low-income families, only 29 percent had obtained at least a bachelor's—exactly one point below the 30 percent bachelor's completion rate for well-to-do students in the *lowest quartile of math performance*.<sup>33</sup>

#### IS THIS THE AMERICA WE WANT TO BE?

Our highest achieving poor kids now earn college degrees at rates below our lowest achieving rich kids. No American can feel good about those numbers and what they say about us as a country.

The patterns must be especially painful, though, to the many dedicated women and men who work in public research universities and have dedicated themselves to making those institutions great. Painful because of what they say about the hollowing of the American promise and painful because some of that hollowing was—and is—within the control of these universities themselves.

The leaders of flagship universities certainly face enormous pressures, especially right now. But far more than their counterparts in less prestigious and less well-financed institutions, they have the luxury of choice. They *can* choose to use more of their resources to educate poor and minority students. They *can* withstand the pressure from college guides to select only the students who make them "look good" in the rankings. They *can* leave no stone unturned in their efforts to enroll students who look like America.

But most of them clearly have chosen otherwise.

The data presented in this report suggest some slowing in the march toward exclusivity. We take some heart from that progress, though it is hardly perceptible. We take more heart, though, from what we learned from institutions that decided to do things differently: that they don't need a long list of recommendations from us or anyone else on what to do. Public research universities are full of smart people who are great at competing—when they decide to compete. They are good at competing for research dollars and endowment contributions. And they are good at competing for and succeeding with low-income students and students of color, when they choose to do that, too.

What remains is for more institutional leaders to make that choice and for more of those who finance these institutions to insist on it.

The last thing America needs right now is for its best public research universities to forget that they are public.

#### **Assessing the Performance of the Individual Flagships**

Most ratings of American colleges and universities focus on status and selectivity rather than access and success. Accordingly, to help readers evaluate how well their own state's flagship serves its high school graduates, we have created (or in a few cases, borrowed) a set of metrics and applied them to each flagship.\* Then, to put the flagships' scores into context, we have divided the institutions into quartiles based on performance.\*\* Also, where historical data are available, we look at trends in access and success and divide the institutions' levels of progress into quartiles to show whether they are getting better—or worse—since publication of "Engines of Inequality" in 2006.

Although flagship universities have much in common, they also differ in many ways. Some, it turns out, are far more successful than others in enrolling low-income and minority students, while others have far greater success in graduating these students.

To be sure, there are important contextual characteristics that may affect their ability to perform well on these access and success measures—in the selectivity of these institutions, for example, and in the nature of the state populations from which they draw the majority of their students. One might expect public universities in Alabama and Georgia to enroll significantly more African-American students than their counterparts in New Hampshire or South Dakota. However, because our metrics compare flagship enrollments directly with their state populations—that is, the very students the institutions were founded to serve—our analysis controls for these demographic differences.

It is important to note that we have made no attempt to assess institutional quality. These metrics are not intended to judge the overall excellence of these institutions. *Our measures are designed solely to evaluate the degree to which the flagships are equitably serving their state's minority and low-income students.* 

#### WHAT DOES PERFORMANCE LOOK LIKE?

It is important to explain how we calculated the metrics so that readers can understand the importance of the individual indicators and the differences among them.

Our report card contains eight separate indices. Three look at current results, and one represents a composite measure of current performance. Performance on each of these indices is measured using a ratio, which compares the flagship's characteristics with those of a comparison group (the state's population or the nonminority population, for example). For more information on ratios, see the "Understanding Ratios" box on page 7.

To put these ratios into context, we divide the flagships into quartiles in each metric and color-code them based on their performance. Green indicates that the flagship falls in the top quartile, red indicates the bottom quartile, and yellow means the flagship falls within the middle two quartiles. Thus, if an institution is rated green on our measure of minority-student access, but red for minority-student success, then that institution is performing well on access but needs to decrease its graduation-rate gaps.

Three additional indices, and one composite, measure trends in these ratios over time. These progress measures are scored in similar fashion to the current performance measures. We break the levels of change into progress quartiles based on the magnitude of the change. So, if an institution is red on current *performance* for minority-student access (indicating that it falls in the bottom quartile on this measure) but is green on *progress* for minority-student access (indicating that it falls in the top quartile on this measure), then that institution has a low access ratio but is making significant improvements.

Just as in the original "Engines of Inequality," the indices and trends presented here are not pretty. The flagships are enrolling far too few low-income and minority students, are not successfully graduating the students they do enroll at equitable rates, and are showing little progress in both access and success.

#### **Performance Metric 1: Minority Student Access**

We compare the percentage of African-American, Latino, and American Indian freshmen enrolled at each of the flagships in fall 2007 with the percentage of these students among 2007 high school graduates in each state.

At the University of Georgia, for example, only 9.4 percent of freshmen were African American, Latino, or American Indian, but these students accounted for 38.9 percent of Georgia's 2007 high school graduates. Therefore, Georgia's minority-student access ratio is 0.24, the lowest of all 48 flagships (just as it was in our previous publication). This ratio puts the institution in the red category for current performance on minority-student access.

Overall, flagships in the top quartile of performance on the minority-student access metric received ratios of 0.74 or higher and appear in green. Flagships in the bottom quartile earned ratios below 0.50 and appear in red.

#### **Performance Metric 2: Low-Income Student Access**

We use the Pell Grant as a proxy for low-income status and compare the percentage of Pell Grant recipients enrolled at each flagship in 2007 with the percentage of Pell Grant recipients enrolled at all colleges and universities in that state in 2007.

At the University of Alaska, Fairbanks, 25.6 percent of students received Pell Grants, compared with 27.8 percent of students attending all colleges and universities in the state. As a result, the university earned a ratio of 0.92 on the low-income student access metric and is highlighted in green based on current performance.

Flagships that scored in the top quartile of performance on low-income access earned ratios greater than 0.70 and appear in green. Institutions that scored in the bottom quartile have ratios of 0.43 or less and appear in red.

#### **Performance Metric 3: Minority Student Success**

We grade the flagships on their six-year graduation rate for minority students—African Americans, Latinos, and American Indians—who entered as freshmen in 2002 relative to their six-year graduation rate for white students who entered in the same year. Schools with small or no gaps between the rates at which their minority and white students graduate do better on this metric. At the University of South Carolina, the combined six-year graduation rate for African-American, Latino, and American Indian students is 64.9 percent, compared with a six-year graduation rate of 67.6 percent for white students. This 2.7 percentage-point gap results in minority students graduating at 96 percent the rate of their white peers (ratio=0.96) and earns the institution a green designation for placing in the top quartile of performance on the minority-student success metric.

The flagships scoring in the highest quartile on this measure had ratios of at least 0.89 and appear in green. Those scoring in the bottom quartile had ratios of 0.76 or lower and appear in red.

#### **Performance Metric 4: Composite Performance**

The composite-performance metric provides an overall measure of how the flagship performs on our equity metrics. The composite-performance ratio represents an average of each flagship's ratio on the first three performance metrics—minority-student access, low-income student access, and minority-student success.

The University of Maine has a composite-performance ratio of 1.02, which represents an average of the flagship's performance on the minority-student access metric (1.39), the low-income student access metric (0.78), and the minority-student success metric (0.88). The composite score of 1.02 places the University of Maine in the green category for current performance.

#### **Progress Metric 1: Change in Minority Student Access**

We compare the percentage of minority freshmen enrolled at each flagship in 2004 with the percentage of minority high school graduates in each state in 2004. We calculate the same measure for 2007 and then compare the 2004 and 2007 ratios.

The representation of minority high school graduates among the University of Utah's freshman class increased from 0.83 to 0.98, putting the institution near equity on this measure. The figure also places the university in the top quartile for progress on the minority-student access metric, earning it a green designation.

Institutions scoring in the highest quartile increased their ratios by at least 0.06. Those scoring in the lowest quartile decreased their ratios by 0.04 or more.

#### **Progress Metric 2: Change in Low-Income Student Access**

We compare the percentage of Pell Grant recipients enrolled at each flagship in 2004 with the percentage of Pell Grant recipients in all colleges and universities in each state in 2004. We then calculate the same measure for 2007 and compare the 2004 and 2007 ratios.

The University of Iowa decreased its low-income access ratio by 0.09 points, from 0.52 to 0.43. This decline places the institution in the bottom quartile for progress in low-income access and earns it a red designation.

Flagships highlighted in green because their progress placed them in the top quartile of progress for low-income student access increased their low-income student access ratio

by at least 0.02. Those marked in red within the bottom quartile decreased their lowincome student access ratio by 0.06 or more.

#### **Progress Metric 3: Change in Minority Student Success**

We compare the six-year graduation rate of minority students who entered in 1999 with the six-year graduation rate of white students who entered in the same year. We then calculate the same measure for students who entered in 2002 and compare the 2005 and 2008 six-year graduation-rate ratios.

At the University of South Dakota, the rate at which minority students graduated relative to their white peers increased from 19 percent in 2005 to 36 percent in 2008, placing the university in the highest quartile of progress on minority-student success.

Institutions scoring in the highest quartile of progress on minority-student success increased their ratios by at least 0.07, and those scoring in the lowest quartile for progress decreased their ratios by 0.02 or more.

#### **Progress Metric 4: Composite Progress**

The composite-progress metric provides an overall measure of how the flagship has improved on our equity metrics since 2004. The composite-progress ratio represents an average of each flagship's ratio change on the first three metrics—minoritystudent access, low-income student access, and minority-student success.

The University of Vermont has a composite-progress score of -0.17. This score is calculated as the average of the flagship's progress on the minority-student access metric (-0.38), the low-income student access metric (0.00), and the minority-student success metric (-0.13). The decreases in equity represented by this low composite-progress score puts the University of Vermont in the red category for overall progress.

#### **Performance Metric 5: Low-Income Student Success**

This measure is new in this edition of the report because Pell Grant graduationrate data now are available for some institutions. We compare six-year graduation rates for students who received Pell Grants when they entered as freshmen in 2002 relative to six-year graduation rates for non-Pell Grant recipients who entered in the same year. Institutions with small or no gaps between the rates at which their Pell and non-Pell students graduate earn higher ratios. Because not all institutions were able to provide data for this metric, we do not divide the performance into quartiles.

At Indiana University, 56 percent of Pell Grant recipients graduate within sixyears, compared with 75 percent of its nonrecipients. This 19 percentage-point gap gives the flagship a ratio of 0.75.

The ratios for the low-income success metric range from 0.75 to 0.93.

\* For minority-student access, we follow the example of Estela Bensimon et al. (2006), "Measuring the State of Equity in Public Higher Education," in *Leveraging Promise*, SUNY Press. Laura Perna and colleagues (2006) also use this ratio in "The Status of Equity for Black Undergraduates in Public Higher Education in the South: Still Separate and Unequal," in *Research in Higher Education* 47, (2). \*\* For technical reasons, several institutions are omitted from the quartiles and are shaded in gray in Figures 17-20. See the footnotes in these figures for a detailed explanation of these data issues.

## FIGURE 17: FLAGSHIP SCORES ON EQUITY METRICS

ON EQUITY METRICS		Performance N	letrics 2007-08		Progress Metrics Change from 2004-05 to 2007-08				
Green Top Quartile Red Bottom Quartile	1	2	3	4	5	6	7	8	
Yellow Middle Quartiles Grey Omitted From Quartiles	Minority Student Access Ratio	Low-Income Student Access Ratio	Minority Student Success Ratio	Composite Performance Ratio	Change in Minority Student Access Ratio	Change in Low-Income Student Access Ratio	Change in Minority Student Success Ratio	Composite Progress Ratio Change	
U. of Alaska Fairbanks (AK)	0.93	0.92	0.52	0.79	-0.29	-0.08	0.14	-0.08	
U. of Alabama (AL)	0.31	0.42	0.89	0.54	-0.02	-0.05	-0.03	-0.03	
U. of Arkansas Main Campus (AR)	0.41	0.45	0.82	0.54	0.02	-0.04	0.03	0.00	
U. of Arizona (AZ)	0.57	0.49	0.87	0.64	0.05	0.04	0.00	0.07	
U. of California-Berkeley (CA)	0.37	0.86	0.90	0.71	0.03	0.00	0.04	0.03	
U. of Colorado at Boulder (CO)	0.39	0.35	0.85	0.53	-0.03	-0.06	-0.01	-0.03	
U. of Connecticut (CT)***	0.60	0.56	0.83	0.66	0.08	0.01	-0.01	0.02	
U. of Delaware (DE)	0.40	0.35	0.80	0.52	0.08	-0.08	-0.04 -0.04	-0.02	
U. of Florida (FL)	0.40	0.57	0.93	0.52	0.03	0.02	0.03	0.02	
U. of Georgia (GA)	0.24	0.29	0.93	0.49	0.13	-0.02	0.00	0.00	
U. of Hawaii at Manoa (HI)**	0.82	0.85	0.88	0.45	0.03	0.01	-0.35	-0.05	
U. of Iowa (IA)	0.82	0.85	0.88	0.69	-0.03	-0.09	-0.35	-0.05	
U. of Idaho (ID)	0.86	0.43	0.78	0.82	0.03	-0.09	0.07	0.03	
U. of Illinois at Urbana-Champaign (IL)	0.56	0.70	0.80	0.62	0.01	-0.03	0.07	0.03	
Indiana UBloomington (IN)	0.62	0.30	0.76	0.60	-0.18	-0.05	0.04	-0.10	
U. of Kansas (KS)	0.50	0.42	0.76	0.60	-0.18	0.04	0.03	-0.10	
U. of Kentucky (KY)****	0.73	0.40	0.80	0.63	0.00	-0.30	0.04	-0.09	
Louisiana State U. and Agricultural & Mechanical College (LA		0.37	0.86	0.53	0.03	-0.02	-0.04	-0.09	
U. of Massachusetts Amherst (MA)	0.60	0.87	0.76	0.74	0.06	-0.02	-0.09	-0.02	
U. of Maryland-College Park (MD)	0.54	0.53	0.84	0.64	0.00	-0.01	0.00	0.00	
U. of Maine (ME)	1.39	0.78	0.88	1.02	0.06	-0.05	0.19	0.07	
U. of Michigan-Ann Arbor (MI)	0.63	0.35	0.81	0.60	-0.22	-0.01	0.00	-0.08	
U. of Minnesota-Twin Cities (MN)	0.91	0.61	0.68	0.73	-0.09	-0.03	0.03	-0.03	
U. of Missouri-Columbia (MO)	0.55	0.40	0.82	0.59	-0.03	-0.02	-0.05	-0.03	
U. of Mississippi Main Campus (MS)	0.29	0.43	0.73	0.48	0.03	0.03	-0.03	0.01	
U. of Montana (MT)	0.65	0.89	0.31	0.62	0.05	0.02	-0.35	-0.09	
U. of North Carolina at Chapel Hill (NC)	0.56	0.39	0.88	0.61	0.05	0.01	-0.01	0.02	
U. of North Dakota (ND)	0.51	0.66	0.60	0.59	0.02	-0.06	0.14	0.03	
U. of Nebraska-Lincoln (NE)	0.58	0.59	0.79	0.65	-0.02	-0.01	0.13	0.03	
U. of New Hampshire-Main Campus (NH)	1.39	0.62	0.76	0.92	0.02	0.02	-0.17	-0.03	
Rutgers UNew Brunswick (NJ)***	0.63	0.85	0.90	0.79	-0.03	0.04	0.03	0.01	
U. of New Mexico-Main Campus (NM)***	0.82	0.91	0.85	0.86	-0.04	0.21	0.02	0.06	
U. of Nevada-Reno (NV)	0.50	0.56	0.79	0.62	0.02	-0.01	-0.01	0.00	
State U. of New York at Buffalo (NY)	0.45	0.72	0.93	0.70	-0.04	-0.06	0.26	0.05	
Ohio State UMain Campus (OH)	0.74	0.53	0.83	0.70	-0.01	-0.05	0.02	-0.01	
U. of Oklahoma Norman Campus (OK)	0.54	0.57	0.83	0.65	0.03	0.01	0.01	0.02	
U. of Oregon (OR)	0.53	0.58	0.92	0.68	-0.02	-0.07	0.18	0.03	
Pennsylvania State UMain Campus (PA)***	0.58	0.73	0.83	0.71	0.02	0.20	0.03	0.08	
U. of Rhode Island (RI)	0.49	0.80	0.68	0.66	-0.08	0.10	-0.07	-0.02	
U. of South Carolina-Columbia (SC)	0.29	0.47	0.96	0.57	-0.10	-0.05	0.07	-0.03	
U. of South Dakota (SD)	0.75	0.75	0.36	0.62	0.14	-0.02	0.17	0.10	
U. of Tennessee (TN)	0.45	0.48	0.95	0.63	-0.10	-0.02	0.00	-0.04	
U. of Texas at Austin (TX)	0.54	0.58	0.86	0.66	0.08	0.09	-0.02	0.05	
U. of Utah (UT)	0.98	0.71	0.90	0.86	0.15	-0.01	0.07	0.07	
U. of Virginia-Main Campus (VA)	0.62	0.30	0.91	0.61	0.05	0.05	-0.01	0.03	
U. of Vermont (VT)	0.95	0.62	0.85	0.81	-0.38	0.00	-0.13	-0.17	
U. of Washington-Seattle Campus (WA)***	0.72	0.64	0.85	0.74	0.02	0.09	0.00	0.04	
U. of Wisconsin-Madison (WI)	0.68	0.47	0.75	0.63	-0.03	-0.04	0.02	-0.02	
West Virginia U. (WV)	1.26	0.64	0.85	0.92	0.14	0.10	0.17	0.14	
U. of Wyoming (WY)	0.50	0.64	0.73	0.62	-0.27	-0.06	-0.13	-0.15	
Total	0.46	0.52	0.87	0.62	0.02	-0.02	0.03	0.01	

\* Because Hurricane Katrina created highly unusual circumstances for Louisiana's higher education system in 2005, the state is omitted from all quartile analyses. \*\* Hawaii has unique demographics, in which Filipinos and Native Hawaiians are the primary underrepresented populations. Because the available data are not disaggregated to separate these groups, the state is omitted from the quartile analyses for race. \*\*\* Pell-recipient data are available at the system level but not at the campus level for University of Connecticut, Rutgers University, University of New Mexico, Pennsylvania State University, and University of Washington. The ratios presented here are based on the percentage of Pell recipients within these flagships' systems. For this reason, these five flagships are omitted from the quartile analysis for Low-Income Student Access. \*\*\*\*\* Piro to 2005-06, Pell-recipient data reported for University of Kentucky included Pell Grant recipients at Lexington Community College as well, so the 2004 percentage Pell reported here for University of Kentucky actually represents the percentages combined for the two institutions. In 2007-08, University of Kentucky reported its Pell data separately from Lexington Community College, so the 2007 Pell percentage reported here accurately represents the percentage at University of Kentucky. For this reason, the flagship's progress from 2004 to 2007 cannot be determined, and the institution is omitted from the quartile analysis for Progress on Low-Income Student Access. Note: Minority students include African-American, Latino, and American Indian students.

FIGURE 18: MINORITY STUDENT ACCESS	Performanc	e Metric 1: Minority	Student Access	Progress Metric 1: Progress in Minority Student Access					
Green Top Quartile Red Bottom Quartile	1	2	3	4	5	6	7		
	Spring '07 HS	Fall '07	Minority Student	Spring '04 HS	Fall '04 Freshmen,	Minority Student	Minority Student Access		
Yellow Middle Quartiles Grey Omitted From Quartiles	Grads, % URM	Freshmen, %URM	Access Ratio '07	grads, % URM	% URM	Access Ratio '04	, Ratio Change, '04-'07		
U. of Alaska Fairbanks (AK)	29.0%	27.0%	0.93	24.9%	30.4%	1.22	-0.29		
U. of Alabama (AL)	34.6%	10.7%	0.31	33.3%	11.1%	0.33	-0.02		
U. of Arkansas Main Campus (AR)	25.5%	10.5%	0.41	24.1%	9.6%	0.40	0.01		
U. of Arizona (AZ)	42.3%	24.0%	0.57	41.0%	21.3%	0.52	0.05		
U. of California-Berkeley (CA)	45.1%	16.9%	0.37	44.0%	14.3%	0.33	0.04		
U. of Colorado at Boulder (CO)	24.0%	9.4%	0.39	21.9%	9.3%	0.42	-0.03		
U. of Connecticut (CT)	23.8%	14.2%	0.60	21.2%	11.1%	0.52	0.08		
U. of Delaware (DE)	34.5%	13.9%	0.40	31.3%	11.1%	0.35	0.05		
U. of Florida (FL)	41.0%	29.9%	0.73	38.6%	23.3%	0.60	0.13		
U. of Georgia (GA)	38.9%	9.4%	0.24	35.8%	6.8%	0.19	0.05		
U. of Hawaii at Manoa (HI)**	6.2%	5.1%	0.82	6.4%	4.1%	0.64	0.18		
U. of Iowa (IA)	7.3%	6.2%	0.85	5.7%	5.0%	0.88	-0.03		
U. of Idaho (ID)	10.9%	9.4%	0.86	9.2%	7.8%	0.85	0.00		
U. of Illinois at Urbana-Champaign (IL)	29.2%	16.3%	0.56	26.6%	13.4%	0.50	0.06		
Indiana UBloomington (IN)	12.8%	7.9%	0.62	10.8%	8.6%	0.80	-0.18		
U. of Kansas (KS)	16.5%	8.3%	0.50	14.4%	9.6%	0.67	-0.17		
U. of Kentucky (KY)	11.5%	8.4%	0.73	10.7%	7.8%	0.73	0.00		
Louisiana State U. and Agricultural & Mechanical College (LA)*	40.4%	13.2%			12.7%		0.03		
			0.33	42.2%		0.30			
U. of Massachusetts Amherst (MA)	17.2%	10.4%	0.60	15.3%	8.2%	0.54	0.06		
U. of Maryland-College Park (MD)	40.1%	21.6%	0.54	36.7%	20.0%	0.54	0.00		
U. of Maine (ME)	3.1%	4.3%	1.39	2.4%	3.2%	1.33	0.06		
U. of Michigan-Ann Arbor (MI)	19.9%	12.5%	0.63	15.2%	12.9%	0.85	-0.22		
U. of Minnesota-Twin Cities (MN)	9.9%	9.0%	0.91	7.7%	7.7%	1.00	-0.09		
U. of Missouri-Columbia (MO)	17.5%	9.6%	0.55	15.5%	9.0%	0.58	-0.03		
U. of Mississippi Main Campus (MS)	48.4%	13.8%	0.29	47.0%	12.1%	0.26	0.03		
U. of Montana (MT)	10.3%	6.7%	0.65	9.1%	5.5%	0.60	0.05		
U. of North Carolina at Chapel Hill (NC)	33.1%	18.6%	0.56	31.6%	16.2%	0.51	0.05		
U. of North Dakota (ND)	7.8%	4.0%	0.51	7.2%	3.5%	0.49	0.02		
U. of Nebraska-Lincoln (NE)	13.7%	7.9%	0.58	10.7%	6.4%	0.60	-0.02		
U. of New Hampshire-Main Campus (NH)	3.3%	4.6%	1.39	3.0%	4.0%	1.33	0.06		
Rutgers UNew Brunswick (NJ)	30.3%	19.1%	0.63	29.2%	19.4%	0.66	-0.03		
U. of New Mexico-Main Campus (NM)	59.6%	48.8%	0.82	58.2%	50.0%	0.86	-0.04		
U. of Nevada-Reno (NV)	30.6%	15.4%	0.50	26.4%	12.6%	0.48	0.02		
State U. of New York at Buffalo (NY)	28.6%	12.8%	0.45	26.4%	12.9%	0.49	-0.04		
Ohio State UMain Campus (OH)	13.9%	10.3%	0.74	13.5%	10.1%	0.75	-0.01		
U. of Oklahoma Norman Campus (OK)	34.3%	18.5%	0.54	31.0%	15.7%	0.51	0.03		
U. of Oregon (OR)	14.5%	7.7%	0.53	11.9%	6.6%	0.55	-0.02		
Pennsylvania State UMain Campus (PA)	16.5%	9.5%	0.58	15.0%	8.4%	0.56	0.02		
U. of Rhode Island (RI)	23.1%	11.3%	0.49	17.6%	10.1%	0.57	-0.08		
U. of South Carolina-Columbia (SC)	38.2%	11.0%	0.29	40.4%	15.9%	0.39	-0.10		
U. of South Dakota (SD)	8.4%	6.3%	0.75	6.9%	4.2%	0.61	0.14		
U. of Tennessee (TN)	24.6%	11.0%	0.45	21.7%	11.9%	0.55	-0.10		
U. of Texas at Austin (TX)	49.5%	26.6%	0.54	48.9%	22.5%	0.46	0.08		
U. of Utah (UT)	9.6%	9.4%	0.98	8.0%	6.6%	0.83	0.15		
U. of Virginia-Main Campus (VA)	28.8%	17.9%	0.62	27.7%	15.9%	0.57	0.05		
U. of Vermont (VT)	3.7%	3.5%	0.95	2.7%	3.6%	1.33	-0.38		
U. of Washington-Seattle Campus (WA)	15.5%	11.2%	0.72	13.8%	9.7%	0.70	0.02		
U. of Wisconsin-Madison (WI)	12.0%	8.1%	0.68	9.8%	7.0%	0.71	-0.03		
West Virginia U. (WV)	4.7%	5.9%	1.26	4.2%	4.7%	1.12	0.14		
U. of Wyoming (WY)	9.2%	4.6%	0.50	7.8%	6.0%	0.77	-0.27		
Total (excluding LA and HI)	29.2%	13.4%	0.46	27.4%	12.1%	0.44	0.02		
iotai (ovoidullig En ullu III)	د <b>ی</b> ،د /٥	10.7/0	0.70	21.7/0	12.1/0	77.0	0.02		

\* Because Hurricane Katrina created highly unusual circumstances for Louisiana's higher education system in 2005, the state is omitted from all quartile analyses. \*\* Hawaii has unique demographics, in which Filipinos and Native Hawaiians are the primary underrepresented populations. Because the available data are not disaggregated to separate these groups, the state is omitted from the quartile analyses for race. Note: Minority students include African-American, Latino, and American Indian students.

FIGURE 19: LOW-INCOME STUDENT ACCESS	Performance	e Metric 2: Low-Inc	come Student Access	Pro	ogress Metric 2: Pro	gress in Low-Income S	tudent Access
	1	2	3	4	5	6	7
Green Top Quartile Red Bottom Quartile	Flagship Students	State Students	Low-Income Student	Flagship Students	State Students	Low-Income Student	Low-Income Student Access
Yellow Middle Quartiles Grey Omitted From Quartiles	% Pell '07	% Pell '07	Access Ratio '07	% Pell '04	% Pell '04	Access Ratio '04	Ratio Change, '04-07
U. of Alaska Fairbanks (AK)	25.6%	27.8%	0.92	28.9%	29.0%	1.00	-0.08
U. of Alabama (AL)	18.7%	44.7%	0.42	24.4%	51.4%	0.47	-0.05
U. of Arkansas Main Campus (AR)	21.7%	48.6%	0.45	25.5%	52.3%	0.49	-0.04
U. of Arizona (AZ)	23.6%	48.6%	0.49	25.7%	56.5%	0.45	0.04
U. of California-Berkeley (CA)	33.0%	38.2%	0.86	34.7%	40.5%	0.86	0.00
U. of Colorado at Boulder (CO)	14.1%	40.4%	0.35	15.0%	37.0%	0.41	-0.06
U. of Connecticut (CT)**	16.9%	30.4%	0.56	16.0%	29.3%	0.55	0.01
U. of Delaware (DE) U. of Florida (FL)	<u>8.7%</u> 23.2%	<u>25.0%</u> 40.6%	0.35	<u> </u>	<u>24.8%</u> 44.6%	0.43 0.55	-0.08 0.02
U. of Georgia (GA)	14.1%	40.6%	0.29	14.2%	44.0%	0.55	-0.02
U. of Hawaii at Manoa (HI)	21.9%	25.8%	0.25	23.1%	27.4%	0.84	0.02
U. of Iowa (IA)	17.4%	40.3%	0.43	18.6%	36.0%	0.52	-0.09
U. of Idaho (ID)	35.2%	46.3%	0.45	39.6%	53.4%	0.74	0.03
U. of Illinois at Urbana-Champaign (IL)	17.2%	34.4%	0.50	17.4%	32.8%	0.53	-0.03
Indiana UBloomington (IN)	15.7%	37.4%	0.42	17.5%	30.9%	0.57	-0.15
U. of Kansas (KS)	16.7%	36.5%	0.46	16.3%	38.7%	0.42	0.04
U. of Kentucky (KY)***	17.8%	47.8%	0.37	34.6%	51.4%	0.67	-0.30
Louisiana State U. and Agricultural & Mechanical College (LA)*	17.1%	44.1%	0.39	20.0%	49.0%	0.41	-0.02
U. of Massachusetts Amherst (MA)	23.2%	26.7%	0.87	24.5%	27.4%	0.89	-0.02
U. of Maryland-College Park (MD)	16.6%	31.5%	0.53	17.7%	32.6%	0.54	-0.01
U. of Maine (ME)	30.0%	38.4%	0.78	33.5%	40.5%	0.83	-0.05
U. of Michigan-Ann Arbor (MI)	13.4%	38.7%	0.35	14.3%	39.6%	0.36	-0.01
U. of Minnesota-Twin Cities (MN)	21.1%	34.6%	0.61	20.9%	32.5%	0.64	-0.03
U. of Missouri-Columbia (MO)	16.7%	41.6%	0.40	17.1%	41.1%	0.42	-0.02
U. of Mississippi Main Campus (MS)	23.8%	55.1%	0.43	24.3%	60.3%	0.40	0.03
U. of Montana (MT)	35.2%	39.4%	0.89	39.8%	45.5%	0.87	0.02
U. of North Carolina at Chapel Hill (NC)	15.3%	39.0%	0.39	15.3%	40.8%	0.38	0.04
U. of North Dakota (ND)	20.4%	30.9%	0.66	25.5%	35.4%	0.72	-0.21
U. of Nebraska-Lincoln (NE)	19.4%	32.7%	0.59	22.2%	37.2%	0.60	-0.01
U. of New Hampshire-Main Campus (NH)	15.6%	25.1%	0.62	17.0%	28.2%	0.60	0.02
Rutgers UNew Brunswick (NJ)**	28.7%	33.8%	0.85	29.2%	35.9%	0.81	0.04
U. of New Mexico-Main Campus (NM)**	39.0%	42.8%	0.91	34.7%	49.5%	0.70	0.21
U. of Nevada-Reno (NV)	13.3%	23.8%	0.56	15.9%	27.8%	0.57	-0.01
State U. of New York at Buffalo (NY)	31.3%	43.5%	0.72	33.8%	43.4%	0.78	-0.06
Ohio State UMain Campus (OH)	23.0%	43.8%	0.53	24.7%	42.8%	0.58	-0.05
U. of Oklahoma Norman Campus (OK)	22.7%	40.1%	0.57	25.2%	45.2%	0.56	0.01
U. of Oregon (OR)	22.9%	39.3%	0.58	27.1%	41.5%	0.65	-0.07
Pennsylvania State UMain Campus (PA)**	26.5%	36.3%	0.73	18.9%	35.8%	0.53	0.20
U. of Rhode Island (RI)	20.6%	25.9%	0.80	21.7%	30.8%	0.70	0.10
U. of South Carolina-Columbia (SC) U. of South Dakota (SD)	<u>20.8%</u> 34.0%	<u>44.0%</u> 45.6%	0.47	24.8%	47.3% 47.0%	0.52	-0.05 -0.02
U. of Tennessee (TN)	22.0%	45.5%	0.75	23.2%	46.8%	0.50	-0.02
U. of Texas at Austin (TX)	23.8%	41.1%	0.58	22.7%	46.6%	0.49	0.02
U. of Utah (UT)	24.5%	34.7%	0.71	30.1%	41.8%	0.43	-0.01
U. of Virginia-Main Campus (VA)	9.5%	31.6%	0.30	8.5%	34.3%	0.25	0.05
U. of Vermont (VT)	17.3%	28.0%	0.62	19.4%	31.4%	0.62	0.00
U. of Washington-Seattle Campus (WA)**	24.2%	37.9%	0.64	24.6%	44.8%	0.55	0.09
U. of Wisconsin-Madison (WI)	13.1%	27.9%	0.47	14.2%	27.9%	0.51	-0.04
West Virginia U. (WV)	26.3%	41.2%	0.64	27.5%	51.4%	0.54	0.10
U. of Wyoming (WY)	22.4%	35.0%	0.64	28.3%	40.2%	0.70	-0.06
Total (excludes CT KY, LA, NM, NJ, PA, WA)	20.4%	39.1%	0.52	22.1%	40.8%	0.54	-0.02

\* Because Hurricane Katrina created highly unusual circumstances for Louisiana's higher education system in 2005, the state is omitted from all quartile analyses. \*\* Pell-recipient data are available at the system level, but not at the campus level for University of Connecticut, Rutgers University, University of New Mexico, Pennsylvania State University, and University of Washington. The ratios presented here are based on the percentage of Pell recipients within these flagships' systems. Tor this reason, these five flagships are omitted from the quartile analysis for Low-Income Student Access. \*\*\* Pell-recipient data reported for University of Kentucky included Pell Grant recipients at Lexington Community College as well, so the 2004 percentage Pell reported here for University of Kentucky actually represents the percentages combined for the two institutions. In 2007-08, University of Kentucky included Pell Grant recipients at Lexington Community College as well, so the 2004 percentage Pell reported here for University of Kentucky. For this reason, the flagship's progress from 2004 to 2007 cannot be determined, and the institution is omitted from the quartile analysis for Progress on Low-Income Student Access.

FIGURE 20: MINORITY STUDENT SUCCESS	Perfe	ormance Me	tric 3: Mino	rity Student	Success		Progress	Metric 3:	Progress in	Minority Student S	Success
	1	2	3	4	5	6	7	8	9	10	11
Green Top Quartile Red Bottom Quartile	Overall Six-Year	White Grad	URM Grad	White-URM	Minority Student	Overall Six-Year	White Grad	URM Grad	White-URM	Minority Student	Minority Student Success
Yellow Middle Quartiles Grey Omitted From Quartiles	Grad Rate, '08	Rate, '08	Rate, '08	Gap, '08	Success Ratio, '08	Grad Rate, '05	Rate, '05	Rate, '05	Gap, '05		Ratio Change, '05-08
U. of Alaska Fairbanks (AK)	27.0%	30.4%	15.9%	14.5%	0.52	21.6%	25.4%	9.6%	15.8%	0.38	0.14
U. of Alabama (AL)	64.4%	65.5%	58.3%	7.2%	0.89	62.9%	63.6%	58.6%	5.0%	0.92	-0.03
U. of Arkansas Main Campus (AR)	57.6%	58.6%	47.8%	10.8%	0.82	56.4%	57.6%	45.6%	12.0%	0.79	0.03
U. of Arizona (AZ)	57.2%	58.4%	50.9%	7.5%	0.87	58.9%	61.2%	46.7%	14.5%	0.76	0.11
U. of California-Berkeley (CA)	89.6%	89.7%	80.3%	9.4%	0.90	87.1%	86.6%	74.4%	12.2%	0.86	0.04
U. of Colorado at Boulder (CO)	66.5%	67.8%	57.5%	10.3%	0.85	66.2%	67.3%	57.8%	9.5%	0.86	-0.01
U. of Connecticut (CT)	76.3%	77.3%	64.2%	13.1%	0.83	71.7%	72.8%	63.2%	9.6%	0.87	-0.04
U. of Delaware (DE)	79.5%	81.1%	64.9%	16.2%	0.80	76.4%	77.5%	65.3%	12.2%	0.84	-0.04
U. of Florida (FL)	81.6%	83.0%	77.6%	5.4%	0.93	79.3%	81.1%	72.7%	8.4%	0.90	0.03
U. of Georgia (GA)	77.9%	78.6%	73.2%	5.4%	0.93	73.2%	73.9%	68.9%	5.0%	0.93	0.00
U. of Hawaii at Manoa (HI)**	50.6%	37.7%	33.3%	4.4%	0.88	51.1%	28.1%	34.6%	-6.5%	1.23	-0.35
U. of Iowa (IA)	65.9%	67.4%	52.3%	15.1%	0.78	66.1%	67.3%	51.5%	15.8%	0.77	0.01
U. of Idaho (ID)	56.6%	57.7%	47.9%	9.8%	0.83	57.4%	57.6%	43.8%	13.8%	0.76	0.07
U. of Illinois at Urbana-Champaign (IL)	82.0%	84.6%	67.8%	16.8%	0.80	82.9%	86.0%	65.7%	20.3%	0.76	0.04
Indiana UBloomington (IN)	72.9%	73.7%	56.2%	17.5%	0.76	71.7%	73.2%	53.8%	19.4%	0.73	0.03
U. of Kansas (KS)	59.7%	60.5%	50.8%	9.7%	0.84	59.3%	60.7%	45.3%	15.4%	0.75	0.09
U. of Kentucky (KY)	57.7%	58.6%	46.7%	11.9%	0.80	59.8%	60.8%	46.4%	14.4%	0.76	0.04
Louisiana State U. and Agricultural & Mechanical College (LA)*	58.9%	60.0%	51.8%	8.2%	0.86	56.8%	57.9%	52.2%	5.7%	0.90	-0.04
U. of Massachusetts Amherst (MA)	69.0%	70.8%	54.0%	16.8%	0.76	65.7%	67.5%	57.2%	10.3%	0.85	-0.09
U. of Maryland-College Park (MD)	81.8%	83.9%	70.3%	13.6%	0.84	76.5%	79.8%	66.8%	13.0%	0.84	0.00
U. of Maine (ME)	59.2%	59.7%	52.7%	7.0%	0.88	52.7%	53.6%	37.0%	16.6%	0.69	0.19
U. of Michigan-Ann Arbor (MI)	88.0%	90.9%	73.4%	17.5%	0.81	86.5%	92.0%	74.9%	17.1%	0.81	0.00
U. of Minnesota-Twin Cities (MN)	65.7%	68.3%	46.4%	21.9%	0.68	60.7%	63.7%	41.4%	22.3%	0.65	0.03
U. of Missouri-Columbia (MO)	69.0%	70.0%	57.1%	12.9%	0.82	66.0%	67.0%	58.6%	8.4%	0.87	-0.05
U. of Mississippi Main Campus (MS)	55.7%	57.9%	42.3%	15.6%	0.73	56.2%	58.1%	44.2%	13.9%	0.76	-0.03
U. of Montana (MT)	39.6%	41.0%	12.6%	28.4%	0.31	43.9%	44.4%	29.4%	15.0%	0.66	-0.35
U. of North Carolina at Chapel Hill (NC)	85.7%	87.6%	77.5%	10.1%	0.88	83.8%	85.2%	75.9%	9.3%	0.89	-0.01
U. of North Dakota (ND)	54.0%	54.5%	32.6%	21.9%	0.60	56.1%	57.1%	26.5%	30.6%	0.46	0.14
U. of Nebraska-Lincoln (NE)	63.7%	64.5%	50.7%	13.8%	0.79	63.4%	64.6%	42.4%	22.2%	0.66	0.13
U. of New Hampshire-Main Campus (NH)	73.0%	74.2%	56.3%	17.9%	0.76	73.1%	74.4%	69.0%	5.4%	0.93	-0.17
Rutgers UNew Brunswick (NJ)***	74.6%	75.3%	67.9%	7.4%	0.90	71.3%	71.9%	62.5%	9.4%	0.87	0.03
U. of New Mexico-Main Campus (NM)***	43.7%	46.7%	39.7%	7.0%	0.85	40.7%	44.3%	36.9%	7.4%	0.83	0.02
U. of Nevada-Reno (NV)	48.5%	49.2%	39.0%	10.2%	0.79	51.7%	52.0%	41.7%	10.3%	0.80	-0.01
State U. of New York at Buffalo (NY)	62.0%	61.7%	57.2%	4.5%	0.93	58.8%	61.7%	41.1%	20.6%	0.67	0.26
Ohio State UMain Campus (OH)	72.7%	74.1%	61.6%	12.5%	0.83	68.2%	69.4%	56.2%	13.2%	0.81	0.02
U. of Oklahoma Norman Campus (OK)	60.0%	61.6%	51.1%	10.5%	0.83	54.9%	56.8%	46.7%	10.1%	0.82	0.01
U. of Oregon (OR)	65.9%	65.9%	60.8%	5.1%	0.92	63.0%	63.5%	47.0%	16.5%	0.74	0.18
Pennsylvania State UMain Campus (PA)***	84.6%	87.0%	72.0%	15.0%	0.83	84.2%	86.1%	68.8%	17.3%	0.80	0.03
U. of Rhode Island (RI)	57.9%	61.0%	41.2%	19.8%	0.68	55.8%	57.9%	43.5%	14.4%	0.75	-0.07
U. of South Carolina-Columbia (SC)	66.7%	67.6%	64.9%	2.7%	0.96	64.9%	66.6%	59.0%	7.6%	0.89	0.07
U. of South Dakota (SD)	46.5%	48.7%	17.6%	31.1%	0.36	46.4%	49.1%	9.4%	39.7%	0.19	0.17
U. of Tennessee (TN)	59.8%	60.2%	57.1%	3.1%	0.30	57.2%	57.6%	54.5%	3.1%	0.95	0.00
U. of Texas at Austin (TX)	77.8%	79.5%	68.5%	11.0%	0.86	75.1%	76.3%	67.3%	9.0%	0.88	-0.02
U. of Utah (UT)	51.1%	49.8%	44.6%	5.2%	0.80	43.1%	41.2%	34.3%	6.9%	0.83	0.02
U. of Virginia-Main Campus (VA)	93.1%	94.6%	86.2%	<u> </u>	0.90	92.6%	93.8%	86.3%	7.5%	0.83	-0.01
U. of Vermont (VT)	71.2%	71.5%	60.9%	10.6%	0.85	65.1%	64.9%	63.3%	1.6%	0.92	-0.01
U. of Washington-Seattle Campus (WA)***	75.4%	71.5%	64.3%	11.5%	0.85	74.3%	74.7%	63.7%	1.0%	0.98	-0.13
U. of Wisconsin-Madison (WI)	79.0%	80.7%	60.4%	20.3%	0.85	74.3%	78.6%	57.0%	21.6%	0.85	0.00
West Virginia U. (WV)	<u>79.0%</u> 55.9%	<u>80.7%</u> 56.5%	48.1%	20.3%	0.75	<u></u>	<u>78.6%</u> 55.7%	<u>57.0%</u> 37.6%	18.1%	0.73	0.02
U. of Wyoming (WY)	52.5%			14.4%			59.2%		8.3%		
		53.3%	38.9%		0.73	57.6%		50.9%		0.86	-0.13
Total (excluding LA and HI)	70.0%	70.5%	61.1%	9.4%	0.87	68.4%	69.3%	<b>58.0%</b>	11.3%	0.84	0.03

\* Because Hurricane Katrina created highly unusual circumstances for Louisiana's higher education system in 2005, the state is omitted from all quartile analyses. \*\* Hawaii has unique demographics, in which Filipinos and Native Hawaiians are the primary underrepresented populations. Because the available data are not disaggregated to separate these groups, the state is omitted from the quartile analyses for race. Note: Minority students include African-American, Latino, and American Indian students.

1         2         3           Institution Name         Pall         Pon-Pell         Grad Rate, '08         Pell Gap, '08         Don-Pell-         Low-Incc           0. of Alaska Faribanks (AK)         data not available         data not available         U. of Alaska Faribanks (AK)         data not available         U. of Alaska Faribanks (AK)         data not available         U. of Ariansa Main Campus (AP)         61%         47%         14           U. of Ariansa Main Campus (AP)         61%         47%         14         U. of Ariansa Main Campus (AP)         0 of Ariansa Amain Campus (AP)         0 of Arian ot available         U. of Campina Barklay (CA)         data not available         U. of Campina GRA         0 of Ariansa Ari	: LOW-INCOME STUDENT Performa	nce Metric 5: Low-Incom	ne Student Suc	cess
Institution Name         Grad Rate, '08         Grad Rate, '08         Pell Gap, '08         Success           U. of Alabam (AL)         data not available         data not available         data not available           U. of Arkannas Main Campus (AR)         61%         47%         14         data not available           U. of Arkannas Main Campus (AR)         61%         67%         60%         7         data not available		2	3	4
U. of Alaska Fairbanks (AK)       data not available         U. of Alaska Fairbanks (AK)       data not available         U. of Arkanssa Kanic Campus (AR)       61%       4%       14         U. of Arkanssa Kanic Campus (AR)       61%       4%       14         U. of Arkanssa Kanic Campus (AR)       61%       4%       14         U. of California-Barkeley (CA)       data not available       14         U. of Cannecticut (CT)       data not available       14         U. of Connecticut (CT)       data not available       16         U. of Delaware (DE)       data not available       16         U. of Idanci (LI)       data not available       11         U. of Idanci (LI)       data not available       11         U. of Idano (ID)       60%       49%       11         U. of Idano (ID)       60%       49%       11         U. of Idano (ID)       60%       49%       19         U. of Idano (ID)       60%       49%       19         U. of Idano (ID)       60%       49%       19         U. of Idano (ID)       data not available       10         U. of Idana U. Boomington (IN)       75%       56%       19         U. of Idana U. available       10				Low-Income Student
U. of Akabama (AL)       data not available         U. of Arkansas Main Campus (AR)       61%       47%       14         U. of Arkansas Main Campus (AR)       61%       47%       14         U. of California-Berkeley (CA)       data not available       0         U. of Colorado at Boulder (CO)       67%       60%       7         U. of Connecticut (CT)       data not available       0         U. of Delavorar (DE)       data not available       0         U. of Georgia (GA)       81%       75%       6         U. of Hawaii at Manoa (HI)       data not available       0         U. of Idavoit (ID)       60%       49%       11         U. of Idavoit (ID)       60%       49%       11         U. of Idavoit (ID)       data not available       0         U. of Kansas (KS)       11       0       data not available         U. of Kansas (KS)       data not available       0       10         U. of Kansas (KS)       data not available       0       10         U. of Kansas (KS)       data not available       0       10         U. of Kansas (KS)       data not available       0       10         U. of Kansas (KS)       data not available       0       10<			1.	Success Ratio, '08
U. of Arkansas Main Campus (AR)       61%       47%       14         U. of Arkansas Main Campus (AR)       data not available				
U. of Arizona (A2)       data not available         U. of Colorado at Boulder (CO)       67%       60%       7         U. of Colorado at Boulder (CO)       67%       60%       7         U. of Colorado at Boulder (CO)       67%       60%       7         U. of Connecticut (CT)       data not available       data not available         U. of Georgia (GA)       81%       7%       6         U. of Georgia (GA)       81%       7%       6         U. of Idaviai at Manos (HI)       data not available       data not available         U. of Idavia (ID)       60%       49%       11         U. of Maxaii at Manos (HI)       data not available       19       0.4         U. of Kansas (KS)       data not available       19       0.4         U. of Kansas (KS)       data not available       0.4       0.4         U. of Massachusetts Amberst (MA)       data not available       0.4       0.4         U. of Massachusetts Amberst (MA)       data not available       0.4       0.4         U. of Missouri-Columbia & Mechanical College (IA)       data not available       0.4       0.4       0.4       0.4       0.4       0.4       0.4       0.4       0.4       0.4       0.4       0.4       0.4 <td></td> <td></td> <td></td> <td></td>				
U. of California-Berkeley (CA)     data not available       U. of Concreticut (CT)     data not available       U. of Concreticut (CT)     data not available       U. of Delaware (DE)     data not available       U. of Georgia (GA)     81%     75%       Markan (H)     data not available       U. of Georgia (GA)     81%     75%       Markan (H)     data not available       U. of Idavaii at Manoa (H)     data not available       U. of Idaho (ID)     60%     49%       U. of Idaho (ID)     60%     49%       U. of Idaho (ID)     60%     49%       U. of Idaho (ID)     75%     56%       U. of Kansa (KS)     data not available       Loidsan U. available     data not available       Loidsan State U. and Agricultural & Mechanical College (LA)     data not available       Loidsan State U. and Agricultural & Mechanical College (LA)     data not available       U. of Manie (ME)     data not available       U. of Manie (ME)     data not available       U. of Manie (ME)     data not available       U. of Minescota-Twin Cities (MN)     77%       U. of Minescota-Twin Cities (MN)     data not available       U. of Minescota-Twin Cities (MN)     data not available       U. of Mortana (MT)     data not available       U. of Mortana				0.77
U. of Colorado at Boulder (CO)       67%       60%       7         U. of Connecticut (CT)       data not available       data not available         U. of Delaware (DE)       data not available       data not available         U. of Georgia (GA)       81%       75%       6         U. of Hawaii at Manoa (HI)       data not available       data not available         U. of Hawaii at Manoa (HI)       data not available       11         U. of Unova (IA)       data not available       11         U. of Idano (ID)       60%       49%       11         U. of Kansas (KS)       data not available       11         U. of Kansas (KS)       data not available       12         U. of Kansas (KS)       data not available       13         U. of Kansas (KS)       data not available       14         U. of Kansas (KS)       data not available       14         U. of Manse (ME)       data not available       16         U. of Marine (ME)       data not available       16         U. of Marine (ME)       data not available       10         U. of Marine (ME)       data not available       10         U. of Marine (ME)       data not available       10         U. of Marine (ME)       data not availab				
U. of Connecticut (CT)       data not available         U. of Delaware (DE)       data not available         U. of Floridal (FL)       data not available         U. of Floridal (FL)       data not available         U. of Horidal (FL)       data not available         U. of Haviai at Manoa (HI)       data not available         U. of Idaho (D)       60%       49%         U. of Idaho (D)       data not available         U. of Idaho (D)       data not available         U. of Idaho (D)       data not available         I. of Kantucky (KY)       data not available         U. of Kansas (KS)       data not available         U. of Massas (KO)       data not available         U. of Massas (KIP)       data not available         U. of Maine (ME)       data not available         U. of Massas (KIP)       data not available         U. of Mass				
U. of Delaware (DE)       data not available         U. of Goorgia (GA)       81%       75%       6         U. of Hawaii at Manoa (HI)       data not available       data not available         U. of Hawaii at Manoa (HI)       data not available       data not available         U. of Idwa (IA)       60%       49%       11         U. of Idwa (IA)       data not available       10         Indiana U. Bloomington (IN)       75%       56%       19         U. of Kansas (KS)       data not available       10       10         U. of Massa (IVA)       data not available       10       10         U. of Margin (ME)       data not available       10       10         U. of Minesota-Twin Chies (MN)       data not available       10       10         U. of Minesota-Twin Chies (MN)       data not available       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10	• •			0.90
U. of Florida (FL)     data not available       U. of Georgia (GA)     81%     75%     6       U. of Georgia (GA)     data not available       U. of Idwa (IA)     data not available       U. of Idwa (IA)     60%     49%       U. of Idwa (IA)     60%     49%       U. of Idwa (IA)     data not available       U. of Idwa (IA)     60%     49%       U. of Idwa (IA)     data not available       U. of Massa (KS)     data not available       U. of Kansa (KS)     data not available       U. of Kansa (KS)     data not available       U. of Massical Deep Park (MD)     data not available       U. of Maryland-College Park (MD)     data not available       U. of Missical Deep Park (MD)     data not available       U. of Missical Deep Park (MD)     data not available       U. of Missical Deep Park (MD)     data not available       U. of Missical College Park (MD)     data not available       U. of Missical Deep Park (MD)     data not available       U. of Missical Deep Park (MD)     data not available       U. of Missical Deep Park (MD)     data not available       U. of Missical Deep Park (MD)     data not available       U. of Missical Deep Park (MD)     data not available       U. of Missical Deep Park (MD)     data not available				
U. of Georgia (GA)       81%       75%       6         U. of Hawaii at Manoa (HI)       data not available       0         U. of Idaho (ID)       60%       49%       11         U. of Idaho (ID)       60%       49%       11         U. of Idaho (ID)       60%       49%       11         U. of Kansas (KS)       0       60%       9%       19         U. of Kansas (KS)       data not available       0				
U. of Hawaii at Manoa (HI)       data not available         U. of Idwa (A)       data not available         U. of Idwa (ID)       60% 49%       11         U. of Idinois at Urbana-Champaign (IL)       data not available       11         U. of Idinois at Urbana-Champaign (IL)       data not available       11         U. of Kanses (KS)       data not available       19         U. of Kanses (KS)       data not available       10         U. of Masscal-College Park (MD)       data not available       10         U. of Masscal-Nuestris Amherst (MA)       data not available       10         U. of Misscal-College Park (MD)       data not available       10         U. of Misscal-Folligen-Ann Arbor (MI)       data not available       10         U. of Misscal-Folligen-Ann Arbor (MI)       data not available       11         U. of Misscal-Folligen-Ann Arbor (MI)       data not available       11         U. of Misscal-Folligen-Ann (MT)       data not available       12       10         U. of Misscal-Folligen Ann (MT)       data not available       10       10       10         U. of Misscal-Folligen Ann (MT)       data not available       10       10       10       10       10       10       10       10       10       10       10			)	
U. of Iowa (IA)       data not available         U. of Illionis at Urbana-Champaign (IL)       60% 49% 11         U. of Illionis at Urbana-Champaign (IL)       data not available         Indiana U. Bloomington (IN)       75% 56% 19         U. of Kansas (KS)       data not available         U. of Kansas (KS)       data not available         Louisiana State U. and Agricultural & Mechanical College (LA)       data not available         U. of Marschy (KY)       data not available         U. of Marschy (KT)       data not available         U. of Marschy (MD)       data not available         U. of Marschy (MD)       data not available         U. of Mine (ME)       data not available         U. of Mine (MT)       data not available         U. of Mine (MT)       data not available         U. of Morth Carolina at Chapel Hill (NC)       87%         U. of North Carolina at Chapel Hill (NC)       87%         U. of New Hampshire-Main Campus (NH)       data not available         U. of New Marsuski (NJ)       data not available         U. of New Marsuski (NJ)       data not available         U. o				0.93
U. of Idaho (ID)       60%       49%       11         U. of Illinois at Urbana-Champaign (IL)       data not available       Infiana U-Bioomington (IN)       75%       56%       19         U. of Kansas (KS)       data not available       data not available       U. of Kansas (KS)       data not available         U. of Kansas (KS)       data not available       data not available       U. of Maryland-College Park (MD)       data not available         U. of Maryland-College Park (MD)       data not available       data not available       U. of Maryland-College Park (MD)       data not available         U. of Miner (ME)       data not available       data not available       U. of Minersotar-Korn (MI)       data not available         U. of Minersotar-Korn (MI)       data not available       data not available       U. of Montana (MT)       data not available         U. of Montana (MT)       data not available       data not available       U. of North Dakota (ND)       data not available         U. of North Dakota (ND)       gaf%       77%       10       0       0         U. of New Manyshire-Main Campus (NH)       data not available       data not available       0         U. of New Dacota (ND)       data not available       0       0       0       0       0       0       0       0 <t< td=""><td>vlanoa (HI)</td><td></td><td></td><td></td></t<>	vlanoa (HI)			
U. of Illinois at Urbana-Champaign (IL)     data not available       Indiana UBloomington (IN)     75%     56%     19       U. of Kansas (KS)     data not available       U. of Marineky (KY)     data not available       U. of Marineky (KY)     data not available       U. of Marine (ME)     data not available       U. of Maine (ME)     data not available       U. of Maine (ME)     data not available       U. of Minesota-Twin Cities (MN)     data not available       U. of Minssigipi Main Campus (MS)     data not available       U. of North Carolina at Chapel Hill (NC)     87%     77%       U. of North Carolina at Chapel Hill (NC)     87%     77%       U. of New Hampshire-Main Campus (NH)     data not available       U. of New Hampshire-Main Campus (NH)     data not available       U. of New Hampshire-Main Campus (NH)     data not available       U. of New Maxico-Main Campus (NH)     data not available       U. of New Maxico-Main Campus (NH)     data not available       U. of New Maxico-Main Campus (NH)     data not available       U. of New Maxico-Main Campus (NH)     data not available       U. of New Maxico-Main Campus (NH)     data not ava				
Indiana UBloomington (IN)       75%       56%       19         U. of Kansas (KS)       data not available       U. of Kansas (KS)       data not available         U. of Kentucky (KY)       data not available       data not available         U. of Massachusetts Amherst (MA)       data not available       data not available         U. of Marinad-College Park (MD)       data not available       data not available         U. of Minand-College Park (MD)       data not available       data not available         U. of Minand-College Park (MD)       data not available       data not available         U. of Minand-College Park (MD)       data not available       data not available         U. of Minesour-Columbia (MO)       71%       59%       12         U. of Minssissippi Main Campus (MS)       data not available       data not available         U. of North Carolina at Chapel Hill (NC)       87%       77%       10         U. of North Carolina at Chapel Hill (NC)       87%       77%       10         U. of Ner Dakota (ND)       data not available       data not available       data not available         U. of Nerback-Lincoln (NE)       data not available       data not available       data not available         U. of New Maxico-Main Campus (NH)       data not available       data not available				0.82
U. of Kansas (KS)       data not available         U. of Kentucky (KY)       data not available         Louisiana State U. and Agricultural & Mechanical College (LA)       data not available         U. of Massachusetts Amherst (MA)       data not available         U. of Maryland-College Park (MD)       data not available         U. of Maryland-College Park (MD)       data not available         U. of Maine (ME)       data not available         U. of Minesota-Twin Cities (MN)       data not available         U. of Minesota-Twin Cities (MN)       data not available         U. of Minesota-Twin Cities (MN)       data not available         U. of Missispip Main Campus (MS)       data not available         U. of Montana (MT)       data not available         U. of North Carolina at Chapel Hill (NC)       87%       77%         U. of North Carolina at Chapel Hill (NC)       87%       77%         U. of New Hampshire-Main Campus (NH)       data not available         U. of New Hampshire-Main Campus (NH)       data not available         U. of New Hardschull (NC)       data not available         U. of New Markico-Main Campus (NM)       data not available         U. of New Hardschull (NC)       data not available         U. of New Areano (NV)       data not available         U. of New Areano (		data not available		
U. of Kentucky (KY)       data not available         Louisiana State U. and Agricultural & Mechanical College (LA)       data not available         U. of Massachusetts Amherst (MA)       data not available         U. of Massachusetts Amherst (MA)       data not available         U. of Maryland-College Park (MD)       data not available         U. of Minesota-Twin Cities (MN)       data not available         U. of Minesota-Twin Cities (MN)       data not available         U. of Minesota-Twin Cities (MN)       data not available         U. of Mississippi Main Campus (MS)       data not available         U. of Mississippi Main Campus (MS)       data not available         U. of Montana (MT)       data not available         U. of North Dakota (ND)       10         U. of North Dakota (ND)       data not available         U. of North Carolina at Chapel Hill (NC)       87%       77%         U. of New Hampshire-Main Campus (NH)       data not available         Rutgers UNew Brunswick (NJ)       data not available         U. of New Hampshire-Main Campus (NH)       data not available         Rutgers UNew Brunswick (NJ)       data not available         U. of New Kasci-Main Campus (NH)       data not available         U. of New Marpshire-Main Campus (NH)       data not available         U. of	mington (IN) 75%	56%	19	0.75
Louisiana State U. and Agricultural & Mechanical College (LA)       data not available         U. of Massachusetts Amherst (MA)       data not available         U. of Maryland-College Park (MD)       data not available         U. of Mine (ME)       data not available         U. of Minesota-Twin Cities (MN)       data not available         U. of Miscingen-Ann Arbor (MI)       data not available         U. of Montana (MT)       data not available         U. of Month Carolina at Chapel Hill (NC)       87%       77%         U. of North Dakota (ND)       data not available       data not available         U. of North Dakota (ND)       data not available       data not available         U. of New Hampshire-Main Campus (NH)       data not available       data not available         U. of New Hampshire-Main Campus (NH)       data not available       data not available         U. of New Hampshire-Main Campus (NH)       data not available       data not available         U. of New Alex Buffalo (NY)	,	data not available	)	
U. of Marsland-College Park (MD)       data not available         U. of Maryland-College Park (MD)       data not available         U. of Maine (ME)       data not available         U. of Minesota-Twin Cities (MN)       data not available         U. of Missouri-Columbia (MO)       71%         U. of Morth Carolina at Chapel Hill (NC)       87%         U. of North Carolina at Chapel Hill (NC)       87%         U. of North Carolina at Chapel Hill (NC)       87%         U. of North Carolina at Chapel Hill (NC)       87%         U. of North Carolina at Chapel Hill (NC)       87%         U. of North Carolina at Chapel Hill (NC)       87%         U. of North Carolina (NT)       data not available         U. of New Hampshire-Main Campus (NH)       data not available         U. of New Hampshire-Main Campus (NH)       data not available         U. of New Alexico-Main Campus (NM)       data not available         U. of New Alexico-Main Campus (NH)       data not available         U. of New Marking Campus (NH)       data not available         U. of New Maxico Albang Campus (NH)       data not available         U. of New Maxico Main Ca	,	data not available	)	
U. of Maryland-College Park (MD)       data not available         U. of Maine (ME)       data not available         U. of Minesota-Twin Cities (MN)       data not available         U. of Missouri-Columbia (MO)       71%       59%       12         U. of Mississippi Main Campus (MS)       data not available       12         U. of Mississippi Main Campus (MS)       data not available       12         U. of Mortana (MT)       data not available       10         U. of North Carolina at Chapel Hill (NC)       87%       77%       10         U. of North Dakota (ND)       data not available       12       10         U. of North Dakota (ND)       data not available       12       10	U. and Agricultural & Mechanical College (LA)	data not available	)	
U. of Maine (ME)       data not available         U. of Michigan-Ann Arbor (MI)       data not available         U. of Missouri-Columbia (MO)       71%       59%       12         U. of Missouri-Columbia (MO)       71%       59%       12         U. of Mississippi Main Campus (MS)       data not available       0       0         U. of Mississippi Main Campus (MS)       data not available       0       0         U. of North Carolina at Chapel Hill (NC)       87%       77%       10         U. of North Dakota (ND)       data not available       0       0         U. of New Hampshire-Main Campus (NH)       data not available       0       0         U. of New Hampshire-Main Campus (NH)       data not available       0       0       0         U. of New Hampshire-Main Campus (NM)       data not available       0<	setts Amherst (MA)	data not available	)	
U. of Minchigan-Ann Arbor (MI)       data not available         U. of Mincesota-Twin Cities (MN)       data not available         U. of Missouri-Columbia (MO)       71%       59%       12         U. of Mississippi Main Campus (MS)       data not available       12         U. of Morthan (MT)       data not available       10         U. of North Carolina at Chapel Hill (NC)       87%       77%       10         U. of North Dakota (ND)       data not available       10       10         U. of North Dakota (ND)       data not available       10       10       10         U. of North Dakota (ND)       data not available       10       10       10         U. of New Hampshire-Main Campus (NH)       data not available       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       11       10       10       10       10       10       10       10       10       10       10       10       10       11       10       11       10       10       11       10       11       10       10       11       10       10       11       10       10       11       10 <td>College Park (MD)</td> <td>data not available</td> <td>)</td> <td></td>	College Park (MD)	data not available	)	
U. of Minnesota-Twin Cities (MN)     data not available       U. of Missouri-Columbia (MO)     71%     59%     12       U. of Mississippi Main Campus (MS)     data not available     12       U. of Montana (MT)     data not available       U. of Month Carolina at Chapel Hill (NC)     87%     77%     10       U. of North Carolina at Chapel Hill (NC)     87%     77%     10       U. of North Dakota (ND)     data not available     10       U. of New Hampshire-Main Campus (NH)     data not available       U. of New Hampshire-Main Campus (NH)     data not available       U. of New Hampshire-Main Campus (NH)     data not available       U. of New Maxico-Main Campus (NM)     data not available       U. of New Markico-Main Campus (NM)     data not available       U. of New Markico-Main Campus (NM)     data not available       U. of New Main Campus (OK)     data not available       U. of New Main Campus (OK)     data not available       U. of Oregon (OR)     68%     59%       Pennsylvania State UMain Campus (PA)     data not available       U. of South Dakota (SD)     48%     38%       U. of South Dakota (SD)     48%     38%       U. of Texas at Austin (TX)     data not available       U. of Varian Campus (VA)     94%     84%       U. of Varian Campus (VA) </td <td>:)</td> <td>data not available</td> <td>)</td> <td></td>	:)	data not available	)	
U. of Missouri-Columbia (MO)       71%       59%       12         U. of Mississippi Main Campus (MS)       data not available         U. of Montana (MT)       data not available         U. of North Carolina at Chapel Hill (NC)       87%       77%         U. of North Dakota (ND)       data not available         U. of North Dakota (ND)       data not available         U. of Nerb Dakota (ND)       data not available         U. of New Hampshire-Main Campus (NH)       data not available         U. of New Brunswick (NJ)       data not available         U. of New Garco-Main Campus (NM)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Areano (NV)       data not available         State U. of New York at Buffalo (NY)       data not available         Ohio State UMain Campus (OK)       data not available         U. of Oklahoma Norman Campus (OK)       data not available         U. of State UMain Campus (PA)       data not available         U. of South Carolina -Columbia (SC)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available       0         U. of South Dakota (SD)       48%       38%       10         U. of South Dakota (SD)       48%       <	Ann Arbor (MI)	data not available	;	
U. of Mississippi Main Campus (MS)       data not available         U. of Montana (MT)       data not available         U. of North Carolina at Chapel Hill (NC)       87%       77%       10         U. of North Dakota (ND)       data not available       0       0         U. of North Dakota (ND)       data not available       0       0         U. of New Barska-Lincoln (NE)       data not available       0       0         U. of New Hampshire-Main Campus (NH)       data not available       0       0         U. of New Hampshire-Main Campus (NM)       data not available       0       <	-Twin Cities (MN)	data not available	)	
U. of Montana (MT)       data not available         U. of North Carolina at Chapel Hill (NC)       87%       77%       10         U. of North Dakota (ND)       data not available       data not available         U. of New Atta not available       data not available       data not available         U. of New Hampshire-Main Campus (NH)       data not available       data not available         U. of New Mexico-Main Campus (NJ)       data not available       data not available         U. of New Mexico-Main Campus (NM)       data not available       data not available         U. of New Mexico-Main Campus (NM)       data not available       data not available         U. of New Mexico-Main Campus (NM)       data not available       data not available         U. of New Jork at Buffalo (NY)       data not available       data not available         U. of Okahoma Norman Campus (OH)       75%       64%       11         U. of Oregon (OR)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available       data not available         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Dakota (SD)       48%       38%       10         U. of Texas at Austin (TX)       data not available       U. of Varinia-Main Campus (VA)	Columbia (MO) 71%	59%	12	0.83
U. of North Carolina at Chapel Hill (NC)       87%       77%       10         U. of North Dakota (ND)       data not available       data not available         U. of New Franswick (NL)       data not available       data not available         U. of New Hampshire-Main Campus (NH)       data not available       data not available         Rutgers UNew Brunswick (NJ)       data not available       data not available         U. of New Mexico-Main Campus (NM)       data not available       data not available         U. of New Mexico-Main Campus (NM)       data not available       data not available         U. of New Mexico-Main Campus (NM)       data not available       data not available         U. of New York at Buffalo (NY)       data not available       data not available         Dhio State U Main Campus (OH)       75%       64%       11         U. of Okahoma Norman Campus (OK)       data not available       data not available         U. of Oregon (OR)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available       data not available         U. of South Carolina-Columbia (SC)       68%       60%       8       0         U. of South Dakota (SD)       48%       38%       10       0       0         U. of Texas at Austin	i Main Campus (MS)	data not available	9	
U. of North Dakota (ND)       data not available         U. of Nebraska-Lincoln (NE)       data not available         U. of New Hampshire-Main Campus (NH)       data not available         Rutgers UNew Brunswick (NJ)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Maxico-Main Campus (NM)       data not available         U. of New Maxico-Main Campus (NM)       data not available         Dhio State UMain Campus (OH)       75%       64%       11         U. of Oklahoma Norman Campus (OK)       data not available       0         U. of Oregon (OR)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available       0         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Dakota (SD)       48%       38%       10         U. of Texas at Austin (TX)       data not available       0         U. of Texas at Austin (TX)       data not available       0         U. of Virginia-Main Campus (VA)       94%       84%	MT)	data not available	9	
U. of Nebraska-Lincoln (NE)       data not available         U. of New Hampshire-Main Campus (NH)       data not available         Rutgers UNew Brunswick (NJ)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Mork at Buffalo (NY)       data not available         Ohio State UMain Campus (OH)       75%       64%       11         U. of Oklahoma Norman Campus (OK)       data not available         U. of Oregon (OR)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Dakota (SD)       48%       38%       10         U. of Texas at Austin (TX)       data not available       U. of Texas at Austin (TX)       data not available         U. of Virginia-Main Campus (VA)       94%       84%       10	lina at Chapel Hill (NC) 87%	77%	10	0.89
U. of New Hampshire-Main Campus (NH)       data not available         Rutgers UNew Brunswick (NJ)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Mexico-Main Campus (NV)       data not available         State U. of New York at Buffalo (NY)       data not available         Ohio State UMain Campus (OH)       75%       64%       11         U. of Oklahoma Norman Campus (OK)       data not available       0         U. of Oregon (OR)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available       0         U. of South Carolina-Columbia (SC)       68%       60%       8       0         U. of South Carolina-Columbia (SC)       68%       60%       8       0         U. of Texas at Austin (TX)       data not available       0       0       0         U. of Texas at Austin (TX)       data not available       0       0       0       0         U. of Virginia-Main Campus (VA)       94%       84%       10       0       0       0       0       0       0       0       0       0       0       0       0       0       0	ota (ND)	data not available	9	
Rutgers UNew Brunswick (NJ)       data not available         U. of New Mexico-Main Campus (NM)       data not available         U. of New Mexico-Main Campus (NV)       data not available         State U. of New York at Buffalo (NY)       data not available         Ohio State UMain Campus (OH)       75%       64%       11         U. of Oklahoma Norman Campus (OK)       data not available       0         U. of Oregon (OR)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available       0         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Carolina-Columbia (SC)       68%       38%       10         U. of Texas at Austin (TX)       data not available       0         U. of Virginia-Main Campus (VA)       94%       84%       10         U. of Virginia-Main Campus (VA)       94%       84%       10	Lincoln (NE)	data not available	9	
U. of New Mexico-Main Campus (NM)       data not available         U. of Nevada-Reno (NV)       data not available         State U. of New York at Buffalo (NY)       data not available         Dhio State UMain Campus (OH)       75%       64%       11         U. of Oklahoma Norman Campus (OK)       data not available       11         U. of Oregon (OR)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available       0         U. of Rhode Island (RI)       data not available       0         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Carolina-Columbia (SC)       48%       38%       10         U. of South Dakota (SD)       48%       38%       10         U. of Tennessee (TN)       data not available       0         U. of Utah (UT)       data not available       0         U. of Virginia-Main Campus (VA)       94%       84%       10         U. of Virginia-Main Campus (VA)       94%       84%       10	oshire-Main Campus (NH)	data not available	)	
U. of Nevada-Reno (NV)       data not available         State U. of New York at Buffalo (NY)       data not available         Ohio State UMain Campus (OH)       75%       64%       11         U. of Oklahoma Norman Campus (OK)       data not available         U. of Oregon (OR)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available       0         U. of Rhode Island (RI)       data not available       0         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Dakota (SD)       48%       38%       10         U. of Tennessee (TN)       data not available         U. of Utah (UT)       data not available         U. of Virginia-Main Campus (VA)       94%       84%       10         U. of Vermont (VT)       data not available       10       10	v Brunswick (NJ)	data not available	9	
State U. of New York at Buffalo (NY)data not availableOhio State UMain Campus (OH)75%64%11U. of Oklahoma Norman Campus (OK)data not available11U. of Oregon (OR)68%59%9Pennsylvania State UMain Campus (PA)data not available11U. of Rhode Island (RI)data not available11U. of South Carolina-Columbia (SC)68%60%8U. of South Dakota (SD)48%38%10U. of Texas at Austin (TX)data not available10U. of Virginia-Main Campus (VA)94%84%10U. of Vermont (VT)data not available10	co-Main Campus (NM)	data not available	)	
Ohio State UMain Campus (OH)75%64%11U. of Oklahoma Norman Campus (OK)data not availableU. of Oregon (OR)68%59%9Pennsylvania State UMain Campus (PA)data not availableU. of Rhode Island (RI)data not availableU. of South Carolina-Columbia (SC)68%60%8U. of South Dakota (SD)48%38%10U. of Texas at Austin (TX)data not availableU. of Virginia-Main Campus (VA)94%84%10U. of Vermont (VT)data not available	eno (NV)	data not available	9	
U. of Oklahoma Norman Campus (OK)       data not available         U. of Oregon (OR)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available         U. of Rhode Island (RI)       data not available         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Dakota (SD)       48%       38%       10         U. of Tennessee (TN)       data not available         U. of Texas at Austin (TX)       data not available         U. of Virginia-Main Campus (VA)       94%       84%       10         U. of Vermont (VT)       data not available       10	York at Buffalo (NY)	data not available	)	
U. of Oregon (OR)       68%       59%       9         Pennsylvania State UMain Campus (PA)       data not available         U. of Rhode Island (RI)       data not available         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Dakota (SD)       48%       38%       10         U. of Tennessee (TN)       data not available         U. of Texas at Austin (TX)       data not available         U. of Virginia-Main Campus (VA)       94%       84%       10         U. of Vermont (VT)       data not available       10	fain Campus (OH) 75%	64%	11	0.85
Pennsylvania State UMain Campus (PA)       data not available         U. of Rhode Island (RI)       data not available         U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Dakota (SD)       48%       38%       10         U. of Tennessee (TN)       data not available         U. of Texas at Austin (TX)       data not available         U. of Virginia-Main Campus (VA)       94%       84%         U. of Vermont (VT)       data not available	Norman Campus (OK)	data not available	)	
U. of Rhode Island (RI)     data not available       U. of South Carolina-Columbia (SC)     68%     60%     8       U. of South Dakota (SD)     48%     38%     10       U. of Tennessee (TN)     data not available       U. of Texas at Austin (TX)     data not available       U. of Utah (UT)     data not available       U. of Virginia-Main Campus (VA)     94%     84%       U. of Vermont (VT)     data not available	R) 68%	59%	9	0.87
U. of South Carolina-Columbia (SC)       68%       60%       8         U. of South Dakota (SD)       48%       38%       10         U. of South Dakota (SD)       48%       38%       10         U. of Tennessee (TN)       data not available       0         U. of Texas at Austin (TX)       data not available         U. of Utah (UT)       data not available         U. of Virginia-Main Campus (VA)       94%       84%         U. of Vermont (VT)       data not available	ate UMain Campus (PA)	data not available	)	
U. of South Dakota (SD)       48%       38%       10         U. of Tennessee (TN)       data not available         U. of Texas at Austin (TX)       data not available         U. of Utah (UT)       data not available         U. of Virginia-Main Campus (VA)       94%       84%         U. of Vermont (VT)       data not available	nd (RI)	data not available	)	
U. of Tennessee (TN)     data not available       U. of Texas at Austin (TX)     data not available       U. of Utah (UT)     data not available       U. of Virginia-Main Campus (VA)     94%     84%     10       U. of Vermont (VT)     data not available	olina-Columbia (SC) 68%	60%	8	0.88
U. of Texas at Austin (TX)     data not available       U. of Utah (UT)     data not available       U. of Virginia-Main Campus (VA)     94%     84%     10       U. of Vermont (VT)     data not available	ota (SD) 48%	38%	10	0.79
U. of Utah (UT)         data not available           U. of Virginia-Main Campus (VA)         94%         84%         10           U. of Vermont (VT)         data not available         0	(TN)	data not available	)	
U. of Utah (UT)         data not available           U. of Virginia-Main Campus (VA)         94%         84%         10           U. of Vermont (VT)         data not available         0	ustin (TX)	data not available	)	
U. of Vermont (VT) data not available		data not available	)	
U. of Vermont (VT) data not available	ain Campus (VA) 94%	84%	10	0.89
		data not available	)	
U. of Wisconsin-Madison (WI) 83% 71% 12				0.86
West Virginia U. (WV) data not available			)	
U. of Wyoming (WY) data not available				
				0.85

#### NOTES

- <sup>1</sup> Birgenau, Robert J., and Frank D. Yeary. "Rescuing Our Public Universities." *Washington Post*, September 27, 2009..
- <sup>2</sup> Planty, M., R Bozick, and S.J. Ingels. "Academic Pathways, Preparation, and Performance - A Descriptive Overview of the Transcripts from the High School Graduating Class of 2003-04 (NCES 2007-316)." Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 2006.
- <sup>3</sup> Roderick, Melissa, et al. From High School to the Future: Potholes on the Road to College. Chicago: Consortium on Chicago School Research, University of Chicago, 2008.
- <sup>4</sup> Rooney, Patrick, et al. *The Condition of Education 2006* (NCES 2006-071). Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 2006.
- <sup>5</sup> EdTrust analysis of NPSAS:08 data using the NCES online Data Analysis System (DAS). The income-band quintiles referenced here include all dependent students (see Figure 9). The distribution of students at the public research-extensive universities includes full-time, full-year, one-institution, dependent students at public research-extensive universities (see Figure 14 and endnote 19).
- <sup>6</sup> Baum, Sandy, and Jennifer Ma. "Education Pays." College Board, 2007.
- <sup>7</sup> Bowen, William G., Chingos, Matthew M., McPherson, Michael S. Crossing the Finish Line. Princeton University Press. New Jersey, 2009.
- <sup>8</sup> 39th Annual Survey Report on State-Sponsored Student Financial Aid, 2007-08. National Association of State Student Grant and Aid Programs, 2008.
- <sup>9</sup> Hoachlander, Gary, Anna C. Sikora, Laura Horn, and C. Dennis Carroll. "Community College Students: Goals, Academic Preparation, and Outcomes (NCES 2003-164)." Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 2003.
- <sup>10</sup> Wirt, John; Choy, Susan; Provasnik, Stephen; Rooney, Patrick; Sen, Anindita; Tobin, Richard. *The Condition of Education 2003* (NCES 2003-067). U.S. Department of Education, National Center for Education Statistics. Washington, D.C.: 2003.
- <sup>11</sup> The 7 percent of students who enter associate's programs and eventually earn bachelor's degrees in the system is an estimate only. It is calculated by multiplying the percentage of freshman students who transfer out of associate's and into bachelor's programs in the system within four years by the percentage of students who transfer into bachelor's programs and graduate within six years. The Access to Success dataset used to compute this estimate does not longitudinally track the progress of individual students who transfer out of associate's programs.
- <sup>12</sup> Wellman, Jane V., et al. Trends in College Spending. Delta Cost Project. 2009. www.deltacostproject.org/resources/pdf/trends\_in\_spending-report.pdf
- <sup>13</sup> Hawaii has unique demographics, in which Filipinos and Native Hawaiians are the primary underrepresented populations. Because the available data are not disaggregated to separate these groups, the state is omitted from these calculations. Similarly, because Hurricane Katrina created highly unusual circumstances for Louisiana's higher education system in 2005, the state also is omitted from these calculations.
- <sup>14</sup> University of Florida Purpose and Mission, University of Florida. *www.registrar.ufl.edu/ catalogarchive/03-04-catalog/introduction/mission.html.* (accessed January 6, 2010).
- <sup>15</sup> Because Hurricane Katrina created highly unusual circumstances for Louisiana's higher education system in 2005, the state is omitted from these calculations. Six other states also are omitted from the low-income student metric calculations for technical reasons. Pell recipient data are available at the system level but not at the campus level for University of Connecticut, Rutgers University, University of New Mexico, Pennsylvania State University,

and University of Washington. Because the number of Pell recipients at the individual flagships cannot be determined, these five states are omitted from these calculations. Finally, Kentucky is omitted from the calculations because prior to 2005-06, Pell Grant recipient data for University of Kentucky (UK) included Pell recipients at Lexington Community College, so the number of Pell recipients at UK in 2004-05 cannot be determined accurately.

- <sup>16</sup> Hawaii has unique demographics, in which Filipinos and Native Hawaiians are the primary underrepresented populations. Because the available data are not disaggregated to separate these groups, the state is omitted from these calculations. Similarly, because Hurricane Katrina created highly unusual circumstances for Louisiana's higher education system in 2005, the state also is omitted from these calculations.
- <sup>17</sup> Trends in Student Aid 2009. College Board, 2009.
- <sup>18</sup> Bowen, William G., Chingos, Matthew M., McPherson, Michael S. Crossing the Finish Line. Princeton University Press. New Jersey, 2009.
- <sup>19</sup> This financial aid discussion is based on Ed Trust analysis of NPSAS:04 and NPSAS:08 data in the NCES online Data Analysis System (DAS). The analysis is limited to full-time, full-year, one-institution, dependent students at public research-extensive universities.
- <sup>20</sup> Bowen, William G., Matthew M. Chingos, and Michael S. McPherson. Crossing the Finish Line. Princeton, N.J.: Princeton University Press, 2009.
- <sup>21</sup> Gerald, Danette, and Kati Haycock. "Engines of Inequality." Washington, D.C.: The Education Trust, 2006.
- <sup>22</sup> Baum, Sandy, and Jennifer Ma. "Education Pays." College Board, 2007.
- <sup>23</sup> Ed Trust analysis of BPS:96 data.
- <sup>24</sup> Bowen, William G., Matthew M. Chingos, and Michael S. McPherson. *Crossing the Finish Line*. Princeton, N.J.: Princeton University Press, 2009.
- <sup>25</sup> Gerald, Danette, and Kati Haycock. "Engines of Inequality." Washington, D.C.: The Education Trust, 2006.
- <sup>6</sup> Roderick, Melissa, et al. "From High School to the Future: Potholes on the Road to College." Chicago: Consortium on Chicago School Research, University of Chicago, 2008.
- <sup>17</sup> Bowen, William G., Matthew M. Chingos, and Michael S. McPherson. *Crossing the Finish Line*. Princeton, N.J.: Princeton University Press, 2009. And data e-mailed by Matthew Chingos, December 14, 2009.
- <sup>8</sup> This estimate of 177,000 high-achieving, low-income students is the number of students who fell in the bottom two income quintiles, took the SAT/ACT and earned at least an 1100 combined math and verbal SAT score (or an equivalent ACT score), graduated from high school in 2007, and attended some form of postsecondary education in 2008, as evidenced by their inclusion in the NPSAS:08 dataset.
- <sup>9</sup> Using NPSAS:08 data, we determined that the 50th percentile combined math and verbal SAT score among entering freshmen who graduated high school in 2007 and subsequently entered public research-extensive universities was 1100. This figure includes students who earned an equivalent score on the ACT. Thus, we used 1100 as an indicator of a "high achieving" student who would have been eligible for admission into such an institution.
- <sup>o</sup> Wyner, Joshua S., John M. Bridgeland, and John J., Jr. Dilulio. "Achievement Trap: How America Is Failing Millions of High-Achieving Students from Lower-Income Families." Jack Kent Cookie Foundation & Civic Enterprises, 2007.
- <sup>31</sup> Bowen, William G., Matthew M. Chingos, and Michael S. McPherson. Crossing the Finish Line. Princeton, N.J.: Princeton University Press, 2009.
- <sup>32</sup> Ed Trust analysis of NPSAS:08 data using the NCES online Data Analysis System (DAS).
- <sup>33</sup> Baum, Sandy, and Jennifer Ma. "Education Pays." College Board, 2007.

#### ABOUT THE EDUCATION TRUST

The Education Trust promotes high academic achievement for all students at all levels—pre-kindergarten through college. We work alongside parents, educators, and community and business leaders across the country in transforming schools and colleges into institutions that serve all students well. Lessons learned in these efforts, together with unflinching data analyses, shape our state and national policy agendas. Our goal is to close the gaps in opportunity and achievement that consign far too many young people—especially those who are black, Latino, American Indian, or from low-income families—to lives on the margins of the American mainstream.



The Education Trust is grateful to Lumina Foundation for Education for generously supporting our work. The views expressed in this publication are those of the authors and do not necessarily represent those of the foundation, its officers. or employees.



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