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Student Success at Georgia State University (A)

There are students who graduate from Georgia public schools with good, strong GPAs who should be able to go to a university. I'm proud that Georgia State is committed to admitting every qualified student. We're not trying to build our reputation on who we exclude, but on who we include and succeed with.

— Allison Calhoun-Brown, Associate Vice President for Student Success

In part through delivering greater personalized support to our students at Georgia State, we have raised graduation rates by 22 percentage points and eliminated all achievement gaps based on race, ethnicity, and income level. We are graduating thousands more students every year than we were before we began these efforts, and more African Americans than any other nonprofit college in the country.

— Tim Renick, Vice President for Enrollment and Student Success

In early 2016, Tim Renick and Allison Calhoun-Brown—respectively Vice President for Enrollment and Student Success and Associate Vice President for Student Success, at Georgia State University—were concerned by the enrollment data they had just received. A growing proportion of students admitted to Georgia State who confirmed they were coming were not actually enrolling. This had now reached a record high: the 2015 incoming freshman class of 3,410 was 18.5% smaller than if those additional confirmed admits had also enrolled. Moreover, hundreds of them were not enrolling at other colleges. Many would have been the first in their families to attend college, and they were disproportionately African American, Hispanic, and from low-income families—the very students Georgia State was building a reputation for enrolling and graduating in increasing numbers.

Over the past 15 years, Georgia State had grown its undergraduate program by a third, to more than 25,000 students, while increasingly serving Georgia's low-income and minority populations and accepting more students with lower ACT and SAT standardized test scores. During these years, Georgia State enrolled twice as many low-income students, nearly twice as many Hispanic students, 71% more African American students, and 58% more first-generation students. By 2015, 42% of its undergraduate students were African American, 27% were white, 12% were Asian, and 10% were Hispanic (see **Exhibits 1** and **2**).[1] Nearly one in five undergraduates were the first in their family to attend college, and 59% were from families that displayed "exceptional financial need" and received tuition support in the form of United States government Pell Grants averaging $4,000 per year.[2]

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A decade earlier, Georgia State's undergraduate six-year graduation rate[a] was a mere 32%. Georgia State realized that some of its own processes impeded student success and launched several initiatives, ranging from using predictive analytics to enable advisors to intervene earlier and more effectively, to revamping academic requirements, and to creating financial support programs. Through these and related efforts, Georgia State improved the six-year graduation rate to 54% by 2015—a 69% increase within 10 years. Renick was proud that Georgia State had achieved this without lowering educational standards and while simultaneously eliminating disparities in graduation rates for African American, Hispanic, and Pell-eligible students—groups with historically lower college success rates.

This work had been driven by Georgia State's Student Success team, an administrative office that reported to Georgia State President Mark Becker and that had been led by Renick since 2009. Georgia State had developed a reputation for innovation and had earned national recognition and awards for its student success initiatives. Upon receiving one such award in 2016, Becker remarked, "Our model for proactively supporting students in new and innovative ways is leveling the playing field so students from all backgrounds succeed. It is hugely gratifying to see these recognitions bestowed upon our faculty and staff for their creativity and hard work in shaping the future of higher education."[3]

In early 2016, Renick and Calhoun-Brown had just met with Assistant Vice President of Admissions Scott Burke. Burke showed them that, in 2015, nearly 800 students had accepted Georgia State's admissions offer and confirmed they would enroll as freshmen but had failed to actually enroll. The proportion of disappearing students, known as "summer melt" by university admissions offices, had nearly doubled over the past three years, growing from 10.9% to 18.5% of the incoming class. Summer melt often described students who decided after accepting a college offer to attend another school, but Burke noticed disturbing trends in the data: a third of the students who did not start the year at Georgia State were not enrolling in any other degree programs. More concerning, at least 70% were students of color and from low-income families, and many were the first in their family to attend college.

These trends troubled Renick and Calhoun-Brown. Georgia State had transformed its ability to help students of all racial, ethnic, and socioeconomic backgrounds succeed and graduate. They had engaged with students, staff, faculty, the president, and even the state government's education leaders. They had developed and deployed an array of process improvements, many of which were data-centric and evidence-based, and had built new tools that leveraged data—all the while striving to foster a culture that prioritized student success. Most of these efforts had been designed to retain enrolled students. Supporting admitted students who had not yet enrolled provided a new challenge but was aligned with their mission to help all students succeed, including those in demographic and socioeconomic groups with traditionally lower matriculation and graduation rates. Why were so many qualified applicants who had confirmed they were coming, choosing not to come after all? Could Georgia State deploy some of the tools it had developed to improve retention and graduation rates, or would it need to develop new ones? Renick and Calhoun-Brown were eager to get to work.

Georgia State University

A public university based in Atlanta, Georgia State served nearly 32,000 students in 2016, including almost 25,000 undergraduate students, 75% of whom were full-time students. A research university

[a] The six-year graduation rate represented the percentage of first-time, first-year undergraduate students who graduated within 150% of the published time for the program. For example, the six-year graduation rate for 2015 represented the proportion of students who started at Georgia State as freshmen in the fall of 2009 who had graduated from Georgia State by the spring of 2015. Students who started as freshmen at Georgia State but then transferred elsewhere reduced Georgia State's six-year graduation rate. Students who transferred into Georgia State were not included when calculating its six-year graduation rate.

with colleges of business, law, policy, health professions, and education, Georgia State attracted 94% of its student body from Georgia and accepted nearly 60% of undergraduate applicants, most of whom had high school grades and standardized test scores near the state and national averages.

Founded in 1913, Georgia State originated as a night school specializing in business classes.[4] By the 1950s, Georgia State had grown to serve more than 5,000 students and offered both day and evening classes.[5] Many U.S. institutions, particularly in the South, remained racially segregated long after the national abolition of slavery in the 1860s, and Georgia State enrolled only white students for nearly 50 years.[6] The 1954 *Brown v. Board of Education* Supreme Court case formally ended racial segregation in education, but desegregation efforts progressed slowly, and it was not until eight years later that Georgia State admitted its first African American student.[7] From the 1960s through the 1980s, Georgia State transformed from a business college into a university serving more than 20,000 students.[8] It subsequently constructed several buildings in downtown Atlanta, and became a residential campus after it acquired thousands of housing units built for the 1996 Summer Olympics.[9] As Georgia State expanded its enrollment, its student body became more racially and socioeconomically diverse.

A first-generation college graduate himself, Becker had been an accomplished biostatistics professor at the University of Michigan and then the executive vice president for academic affairs and provost at the University of South Carolina before he became Georgia State's seventh president in 2009. He arrived during the Great Recession, when the state of Georgia reduced Georgia State's budget by $40 million over three years (see **Exhibit 3**). Becker enthusiastically accepted the position, energized by the prospect of growing the school, successfully navigating budget cuts, and fostering the type of innovation that could come from constrained resources.[10] Becker worked to expand the student body, which became increasingly diverse each year, leading Georgia State to become a Minority-Serving Institution. In 2011, Georgia State became the top conferrer of bachelor's degrees to African American students of all U.S. non-profit institutions, a position it maintained consistently (see **Exhibit 4**).[11]

By 2015, Georgia State's main campus in Atlanta comprised more than 70 acres.[12] It also operated five smaller academic campuses, additional athletic and academic facilities in Georgia, and a facility in California.[13] Georgia State offered almost 300 degree and certificate programs across eight specialized schools and colleges, and employed more than 1,300 full-time faculty.[14] Tuition for bachelor's degree students was $5,343 per semester for Georgia residents and $14,518 for non-residents.[15]

Building the Student Success Program

In 2003, Georgia State's six-year graduation rate was 32%, compared to an average of 50% for U.S. public universities.[16] By 2008, when Renick became the associate provost, Georgia State's six-year graduation rate had climbed to 43%, still below the national average, which had risen to 57%.[17] Georgia State needed to understand why so many students were struggling and leaving before graduating.

Originally from New York, Renick attained a master's degree and a PhD in religion at Princeton University, and in 1986, became a religious studies professor at Georgia State. An acclaimed instructor, winning recognition from Georgia State's College of Arts and Sciences and the American Academy of Religion, he worked closely with many capable students who struggled to be successful at Georgia State.[18] He was eager to build on prior initiatives to increase student persistence—the proportion of students who continued to be enrolled the following term—and graduation rates. Renick understood that improving these measures would not only increase students' chances for professional success, but would generate more tuition revenue to help offset state budget cuts. Renick estimated a one-percentage-point increase in student persistence each term would mean an additional 325 students advancing to the next grade, contributing more than $3.2 million in tuition per year.

To help lead these efforts, Renick recruited Calhoun-Brown, who had been a political science professor at Georgia State for 15 years after earning a PhD from Emory University. Thinking back on why she accepted Renick's offer, Calhoun-Brown said, "I had been teaching and doing my research for a while, and I was looking for different challenges. I cared very much about students, and part of the charge of this job would be making sure students progressed to graduation."

However, continuing to improve student outcomes would be challenging, especially as Georgia State's growth was driven primarily by students of color and low-income students who, historically, had lower graduation rates (see **Exhibits 5** and **6**). Moreover, Georgia State would change its admission policy in 2014–2015 to accept all academically qualified students who achieved a particular "Freshman Index," calculated using high school grade point averages (GPA) and SAT or ACT scores.

Educational Disparities in the United States

Georgia State's progress occurred in spite of the significant educational disparities in the U.S. Between 1976 and 2015, the share of students enrolled in U.S. degree-granting postsecondary institutions who were racial and ethnic minorities rose 2.6 times, from 16% to 42%.[19] However, even as educational access increased, significant disparities in educational outcomes remained. In 2016, only 39% of African American students received bachelor's degrees within six years, compared to 54% of Hispanic students, and 64% of white students (see **Exhibit 7**).[20]

Often, racial and socioeconomic disparities were intertwined. In 2013, 71% of African American and 67% of Hispanic elementary and high school students lived in U.S. school districts where poverty rates exceeded 20%, significantly higher than the 35% of white students living in low-income communities.[21] Because the U.S. public education system largely relied on local property taxes to fund schools, low-income school districts typically had budgets that afforded lower per-pupil spending.[22] Moreover, economically disadvantaged students were less equipped to handle the high costs of higher education. These factors translated to vast disparities in educational attainment. In 2015, an estimated 58% of individuals from families in the highest income quartile attained at least a bachelor's degree by age 24, compared to 12% from families in the lowest income quartile (see **Exhibit 8**).[23] Educational attainment led to major differences in earnings. In 2015, U.S. workers with a bachelor's degree had median weekly earnings of $1,137, which was 68% higher than the $678 for those who only had a high school diploma (see **Exhibit 9**).[24] And for those who began but did not complete college, their accumulated student loan debt would be more difficult to repay without the wage premium that came with a college degree.

Georgia State's Strategic Plan

Georgia State's student success efforts were also informed by its ten-year strategic plan, developed in 2011. At that time, 56% of Georgia State's students were students of color and 51% were low-income—and those percentages were increasing each year (refer to **Exhibits 1** and **2**). Renick and Calhoun-Brown were committed to increasing graduation rates, but they knew that it would be challenging simply to maintain the gains Georgia State had already made, as the percent of low-income students in Georgia's public schools already exceeded 55% and increased each year.[25] Renick said, "What we were in effect doing was enrolling more of the students we were least effective in graduating—which was also a financial challenge for the institution."

In 2011, when the graduation rate was 48%, Georgia State's strategic planning committee—which included Calhoun-Brown—made student success a key component of Georgia State's strategic plan and set goals to be achieved by 2020 with intermediate benchmarks for 2015. Georgia State's goal was "to become a national model for undergraduate education by demonstrating that students from all backgrounds can achieve academic and career success at high rates."[26] The plan outlined a number of

specific, metrics-oriented targets, including substantial increases to the number of degrees conferred, graduation rates, and enrollment of first-generation and federal aid-eligible students (see **Exhibit 10**).[27]

Becker also agreed to reinvest a portion of additional revenues generated by the Student Success team back into student success. Renick said, "If we raised our retention and graduation numbers by a certain amount, they would bounce 10% of revenues back to student success. They just said, 'You had a successful year last year. You know better than we do what to do to make next year successful. Here's 10%—do whatever you want with it.'" Renick, supported by the university president, the strategic plan, a few committed leaders, and a funding mechanism for his initiatives, set out to refine student data collection and mine it with intent. Reviewing metrics and analyses became a crucial activity to help the Student Success team identify and quantify problems affecting students' ability to graduate.

Advising via Predictive Analytics

Despite making progress retaining and graduating students, in 2011 Georgia State's graduation rate was still below 50%. Renick and Calhoun-Brown wanted to tackle a big issue: nearly 25% of the prior year's undergraduates had not returned, amounting to thousands of students. Renick said, "It wasn't that they were flunking out, or that they had a bar on their account for financial reasons. It was kind of this silent group. If you had asked me in 2010 why we were losing 5,700 students a year, I would have said that we really didn't know." They set out to understand why these students had not returned.

Renick and Calhoun-Brown believed advisors could help. Student advisors assisted students with course selection, answered questions, and directed them to resources such as tutoring. The Student Advisement Center consisted of 12 advisors who served all students through their first 42 credit hours, which for most meant the first three semesters.[b] The Center used a low-touch approach due to its ratio of one advisor per 1,200 students. Tracking student performance and preparing for meetings was an inefficient process requiring accessing 19 screens that referenced several IT systems and triggered different types of warnings. Advisors kept paper records of how many students they saw each day.

Advisors were aware of the problems facing the students they met, but were responsible for too many students to meet them all. They focused mostly on supporting students at severe risk of failing out and on responding to high-achieving students who wanted advice to do even better, leaving them with virtually no time to reach out to others. An analysis of advising services yielded results that were "pretty disturbing," according to Renick. "What we found in effect was almost 100% of our advising resources were going towards students whose outcomes were not being materially impacted by the advice that they were getting."[28] Calhoun-Brown observed, "You can have the biggest impact on graduation rates for people in the middle, but we had no good way to interact with those people. We wanted to know what they were doing academically that put them at risk."

Renick and Calhoun-Brown turned to Carol Cohen, Director of the University Advisement Center, to help rethink the process. Cohen had been recruited from Georgia State's athletic advising department, a high-touch group that had a much better advisor-to-student ratio. Renick said, "We had this idea that there were things students were doing that were leading them to drop out, but we were only finding out about the problems after the fact. Could we identify the things that would eventually cause them to drop out?" Cohen made it very clear that advisors needed better data to understand why students were leaving the university and to identify which students advisors should contact.

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[b] After accumulating 42 credits, students declared a major and were assigned advisors (typically professors) in their specific academic program.

Georgia State had a data warehouse with many types of student data, including courses taken, grades, and credits. The team wondered whether this data could be used to predict which students were at greatest risk of dropping out so that advisors could intervene to lend support. However, the use of predictive analytics was uncommon in university settings, and they struggled to find a vendor to help them implement their vision. By chance, Renick ran into Ed Venit at a conference. Venit, then a senior research consultant at Education Advisory Board (EAB), was looking for ways to use EAB's expertise to build an analytics solution for higher education. Georgia State agreed to partner with EAB to develop a software solution, later known as Navigate, to support students more effectively.

A new prediction tool One tool in Navigate was a machine learning-based prediction model that issued daily predictions of the likelihood that each student would graduate within a six-year period. The model was designed to help advisors classify students into groups based on how much support they required to be successful. According to Lars Waldo, EAB's Senior Director of Data Science, the model was capable of incorporating several categories of data. Each category included a wide array of variables, most of which came from Georgia State's data warehouse. Examples included:

- **Pre-enrollment data** High school grades; standardized exam scores; demographic, geographic, and socioeconomic indicators; transfer status; transfer credits.
- **Program of study** Courses taken, their sequence, and in which term; major declared; prior majors declared; number of major declarations.
- **Academic progress** Lifetime accumulated credits; ratio of earned credits to attempted credits; average number of credits per term; the number of credits enrolled in the current term.
- **Academic performance** Cumulative GPA; GPA trend; cumulative GPA rank in the major.

The model used variables in their raw form and, for some, in transformations such as squared terms (e.g., cumulative GPA squared) to account for nonlinear relationships between input and output variables. Waldo explained that the model could also accommodate customized requests to include data typically stored outside the student information system, such as financial aid data, supplemental admissions data, and campus life engagement (e.g., club involvement, sports game attendance), which Georgia State opted to exclude.

To ensure the model applied appropriate weighting based on various student groups, students were divided into subpopulations: pre-enrollment, first semester, underclass members (past their first term, with less than 60 credit hours), upperclass members (60 to 120 credit hours) and "super seniors" (more than 120 credit hours). Some of these groups were further segmented into those who initially enrolled at Georgia State and those who came as transfer students.

The data from each group was fed into a machine learning model that, at its core, was a logistic regression model that used elastic net regularization to reduce model complexity and prevent overfitting (by reducing the number of variables used in the logistic regression).[c] The model generated a predicted probability (ranging from 0% to 100%) of how likely the student was to graduate within six

[c] In the regression context, *overfitting* refers to models whose regression coefficients overemphasize accurately predicting outcomes in the *training dataset*—the sample used to generate the coefficients—resulting in poor prediction accuracy when estimating outcomes in the *testing dataset*, the "hold out" sample used only to assess out-of-sample prediction accuracy. To reduce overfitting and improve the model's out-of-sample accuracy, ridge regression and LASSO (Least Absolute Shrinkage and Selection Operator) regression techniques can be applied to *regularize* the model, which adjusts coefficients—in some cases to zero, effectively dropping some variables resulting in a simpler model. *Elastic net regularization* incorporates a weighted average of ridge and LASSO regression approaches to reduce overfitting.

years. The model received a daily data feed from Georgia State's student information system, although the most predictive elements, such as course grades and GPA, changed only at the end of each term.

The model categorized these predicted probability values into red, yellow, or green classifications based on configurable thresholds. Advisors could then develop outreach strategies for each group. For example, knowing that the second semester of sophomore year was particularly challenging for many math majors, advisors might email all sophomore math majors who were flagged "red," asking them to set up an appointment. The model was re-trained every year or two to ensure its prediction algorithm continued to be updated with recent student behavior.

Success markers Navigate provided a second tool that let advisors track student performance against success markers for their major. These success markers were the courses—and course sequence, timing, and the grades earned—that Georgia State viewed as critical to success within a major. The tool also provided a single screen summarizing student performance on success markers and his or her risk category, which meant advisors no longer had to scan 19 screens for a comprehensive picture and they now had milestones against which to gauge student progress (see **Exhibits 11a** and **11b**).

These student success markers were identified in a two-step process. Georgia State's advising team first proposed a set of student success markers they believed were important to a student's ability to graduate within six years, and then EAB analyzed historical data to determine which markers were statistically significant predictors of graduating. Calhoun-Brown said, "No one had ever gone back and looked to see whether you needed a particular grade in a prerequisite class to succeed in the next level. For example, maybe the faculty set a prerequisite grade of C to move on to Accounting II, but no one had evaluated whether you actually needed a B- or a B or a B+ to do well. And maybe students who get worse than a B+ needed more support or some intervention to help them make positive change." In addition to grades, EAB looked at the timing of when classes were taken. Venit said, "For example, maybe we should be really worried that you haven't finished pre-calculus by your third semester."

Georgia State rolled out this system in 2012, calling it Graduation and Progression Success Advising (GPS Advising). Advisors were required to use it and, when alerts were triggered, were directed to reach out to students within 48 hours. Calhoun-Brown said, "For the most part, advisors were excited about the new system because this made their work easier in many ways." With student progress against their major's success markers now readily visible to advisors, advisors could set alerts to be notified when students failed to complete success markers on schedule—such as not achieving a recommended course grade by a particular semester. They could also set alerts for behaviors that increased the risk of not meeting success markers in the future—such as missing a registration deadline or not enrolling in a recommended course in the recommended term.

Based on Georgia State's progress improving student success metrics and the early promise of the university's contract with EAB, the state provided Georgia State with $2.1 million in permanent funding to support hiring 42 more advisors to reduce the student-advisor ratio to 300:1.[29] The improved student-advisor ratio allowed Georgia State to extend proactive advising through a student's third year, after which the student's academic college or department assigned a professional or faculty advisor.[30] When Georgia State rolled out Navigate in 2012, it triggered tens of thousands of alerts, and advisors held more than 50,000 advising sessions per year with targeted students.

Based on the additional meetings with students who had previously remained largely overlooked, the Student Success team became aware of other inefficiencies—such as students registering for the wrong courses or taking courses in the wrong order (e.g., taking a higher-level course before taking the prerequisites). Those actions led students to take more courses than necessary to earn the 120 credits needed to graduate—lengthening their time to graduate and increasing the number of semesters they

had to pay tuition and forego working full-time. The learnings generated by predictive analytics helped Georgia State develop academic and financial programs to address these inefficiencies.

Academic Support

Georgia State's data indicated that many students dropped out for academic reasons. While Graduation and Progression Success Advising helped predict and prevent academic problems, the Student Success team also looked for ways to address academic problems as they arose.

Renick realized that in 2008, 43% of students failed introductory Algebra, Pre-Calculus, and Statistics—all large classes where students did not get much personal attention.[31] Several faculty members believed that failing large numbers of students was an appropriate way to "weed out" those unlikely to succeed in higher-level courses, but with the strategic plan's commitment to student success in mind, Renick disagreed.[32] Rather than hire more faculty to reduce average class size or bring in more student tutors, the Student Success team piloted an adaptive learning model in which students spent 75% of class time using a computer program that provided personalized feedback. Georgia State built designated adaptive learning computer labs where students came to work during specified times. From 2008 to 2014, non-pass rates in introductory math courses decreased by 24 percentage points to 19%.[33] In 2016, Georgia State received a grant from the Gates Foundation—an organization well known for requiring rigorous performance evaluation—to continue scaling its adaptive learning approach.[34]

Similarly, the Student Success team saw that many students struggled in Georgia State's popular nursing and business programs, which maintained minimum GPA requirements. If students' GPAs dropped below the programs' thresholds, they could no longer enroll in courses related to those majors. Some students switched majors and others enrolled in courses unrelated to their majors to increase their GPAs enough to continue with their chosen programs. The wasted credit hours equated to wasted time and money, a particularly critical issue for Georgia State's low-income students. Of identifying this problem, Cohen said, "That really got the ball rolling. This is what we're facing. This is why students are getting upset with us—because they want to take business courses and they can't."

Data indicated that this problem affected about 1,000 students per year and impacted graduation rates—the graduation rate for students who dropped below the nursing GPA threshold was 20 points lower than the university average.[35] Richard Staley, EAB's Vice President of Technology Partner Success, explained, "If they're not in the right-fit major, it's better to support their transition to a new major earlier rather than two years in. Looking at the data, you have enough information to guide decision moments for nursing students at the end of the first year. By waiting, you put students in a holding pattern, whereas they could have successfully transitioned to something else and we could have minimized delays to graduation." Using the predictive analysis of which students were more likely to succeed in the business program, faculty raised that program's GPA entry threshold from 2.5 to 2.8 and lowered its GPA retention threshold from 2.5 to 2.0.[36] The graduation rate of business students increased to nearly 60%, among the highest at Georgia State. Based on the Student Success team's suggestions, faculty shortened the pre-nursing program to one year and focused the curriculum on courses that were also applicable to other health majors.[37] The 20-point graduation gap between pre-nursing students accepted into the nursing program and those who were not disappeared.[38]

Georgia State also wanted to eliminate unnecessary credit hours and reduce the time students spent getting degrees. In 2010, students had taken an average of 140 credit hours before they graduated with a bachelor's degree—well above the 120 credits required. One contributing factor was the average number of major switches, which was 2.4 in 2008.[39] To help students find the right major, in 2013 Georgia State began assigning its Freshman Learning Communities (FLCs)—groups of 25 freshmen—

by the "meta-major" the student selected. Meta-majors were eight broad academic areas, each of which included several related majors (STEM, Arts & Humanities, Health, etc.), and freshmen in the same meta-major FLC were assigned the same first-year schedule. Assigning FLCs in this way let freshmen learn more about their course of study before selecting a major. Between 2011 and 2015, incidents of major switching decreased by 32%.[40] Not all students chose a meta-major, but those in meta-major FLCs had an average GPA of 2.96 and first-year retention of 85%, compared to 2.73 and 81% for those who did not choose one and whose FLC comprised students with less similar academic interests.[41]

Financial Support

Financial concerns had long been a barrier to the success of low-income students and were of growing concern for Georgia State now that these students represented more than half of the student population. Advisors often heard from students who were at risk of leaving Georgia State because they needed to work to support their families or had other funding constraints. Financial problems were often worsened by academic inefficiencies as described above, which led students to take more credit hours and increased the risk that they would exhaust their funding sources before completing all degree requirements. Renick remarked:

> The vast majority of Georgia State students have high amounts of unmet need, even when you account for them taking out loans and working 20 hours per week. The average Georgia State undergraduate with unmet need has a roughly $7,000 gap between what it costs to be a student at Georgia State and what the student receives from the federal government and earns from working. It remains a huge obstacle to help students who don't have the financial support to study in the way they're expected to study.

The Student Success team looked at options to deploy their limited financial resources to address this, and eventually settled on microfinance. Microfinance—typically loans or grants of less than $1,000—had proven to be a successful, cost-effective tool to stimulate economic growth in developing countries, particularly in sub-Saharan Africa,[42] but was not commonly used in educational settings.

When Renick first became associate provost, he assessed student data and saw that many students did not reenroll even if they had GPAs between 2.5 and 2.99.[43] Many of these students had originally received Helping Outstanding Pupils Educationally (HOPE) Scholarships, awarded to Georgia residents who graduated high school with a GPA of at least 3.0 (a B average) and attended an eligible Georgia institution.[44] The HOPE Scholarship awarded more than $8,000 per year (more than 70% of in-state tuition).[45] Students' eligibility for HOPE was reassessed each academic year. If their GPAs fell below 3.0, they were no longer eligible for HOPE, but they could get it back at the next reassessment if their GPA increased above 3.0. In 2008, only 8% of Georgia State students who lost HOPE regained it—and their graduation rate was 21%, compared to 61% of those who retained HOPE.[46]

Renick and Calhoun-Brown devised a potential solution, Keep HOPE Alive.[d] If students lost the scholarship, Georgia State would provide two $500 grants—one per semester. In 2009, Georgia State conducted a pilot by awarding a total of $40,000 to 40 students, but there was no measurable increase in those students' recovering their HOPE Scholarship.[47] Renick and Calhoun-Brown added a condition that students could only receive the grants if they attended academic workshops, advising sessions,

[d] "Keep hope alive" became a household phrase in the U.S. during Jesse Jackson's U.S. presidential campaigns in 1984 and 1988, as he concluded many of his campaign speeches with this phrase.

and financial literacy training.[48] That year, 60% of Keep HOPE Alive students recovered the scholarship.[49]

Going forward, Georgia State selected 60 to 70 students each year for Keep HOPE Alive. Georgia State prioritized students with stronger academic records, and those who had lost the HOPE Scholarship after freshman year rather than after sophomore year, since rising sophomores had accumulated fewer credits and could more easily raise their GPAs. Renick said, "Some students sadly might have a 1.2 GPA at the end of freshman year. We may be able to get them federal aid, but they're not good candidates for Keep HOPE Alive because the prospects of getting their GPAs above 3.0 within a year are small. Keep HOPE Alive is not infinitely scalable because it's only going to work for students within fighting distance." Between 2011 and 2015, 55% of Keep HOPE Alive awardees regained the HOPE Scholarship.[50] The graduation rate for students who lost their HOPE Scholarship nearly doubled from 21% in 2008 to 38% in 2015.[51]

Students who lost the HOPE Scholarship were not the only ones leaving for financial reasons while in good academic standing. In 2011, Renick and Calhoun-Brown learned that the number of students who left for financial reasons was steadily rising. In Georgia, universities were required to drop all students who failed to pay for the full cost of courses within the first week of class. Calhoun-Brown said, "Sometimes, we'd have to drop thousands of students. This was a big problem because you fight so hard to get students registered and in the right classes." In 2011, this happened to more than 1,000 students per semester.[52] The data revealed that seniors comprised the largest proportion of students leaving for financial reasons—likely because their grant or scholarship money had run out by the time they entered their final semesters.[53] The amount owed by these students was usually less than $1,500,[54] and dropping these students meant Georgia State had to refund any tuition it had already collected. Venit said, "It's a pretty bad business process. Think about it. What business would say, 'I would rather not get $6,000 from you next year because you owe me $300 now'? That's nuts."

The team considered increasing the dollar amount of need-based scholarships awarded to freshmen but changed course once the data showed that seniors with a high likelihood of graduating based on GPAs comprised the largest group with outstanding balances.[55] In 2011, they piloted an alternative solution.[56] The team looked at the list of seniors who had outstanding balances but were otherwise on track for graduation. With a $40,000 gift from Becker, they worked down the list, starting with the smallest balances, until the funding was exhausted—giving grants to 34 students, 70% of whom graduated within the next two semesters.[57] Renick said, "It's challenging to compare the results against a counterfactual that cannot be established—what the students would have done if not given the grant—but our historical data indicated that only about 30% of students who were previously dropped from classes for financial reasons came back to graduate."

The following academic year, Georgia State expanded the program, awarding grants—now dubbed Panther Retention Grants—to 2,600 students.[58] The school also added a requirement that recipients had to meet with financial and academic advisors.[59] At the start of each semester, it screened all students to build a list of those with outstanding balances. Then, it prioritized students who were close to graduating, had a good GPA and a low outstanding balance, and had exhausted other sources of aid. Sometimes, though, the team would make exceptions for students who did not meet all of their criteria. Renick said, "Roughly 80% are identified just from the list, and 20% require some deliberation—it might take a call to advising or some other research to figure out whether the student qualifies or not."

In 2016, Georgia State awarded more than 2,300 Panther Retention Grants in amounts that averaged around $1,300; 62% of the recipients were seniors. Since the launch of the program, 78% of the seniors who received these grants had graduated within three semesters, which was more than double the

graduation rate of seniors who had been dropped due to non-payment (see **Exhibit 12**).[60] Furthermore, Georgia State believed the program had a positive financial return, as the grants enabled Georgia State to receive tuition from these students, which tended to range from $3,600 to $6,100 per semester.[61]

Next Steps

By early 2016, Georgia State had demonstrated significant increases in retention and graduation rates. Between 2010 and 2015, its undergraduate six-year graduation rate increased from 48% to 54%,[62] and African American, Hispanic, and low-income students now graduated at rates at or above the university average (see **Exhibits 13**, **14**, and **15**). The number of credit hours graduating students had accumulated—and had to pay for—decreased from 140 to 133 (see **Exhibit 16**), saving students $18 million in annual tuition costs. In 2014, President Barack Obama praised the Panther Retention Grant program, and in 2015, Georgia State received the American Council on Education's Institutional Transformation Award[63] and was ranked the fifth Most Innovative National University by *U.S. News & World Report*.[64]

Improving retention and graduation also affected Georgia State's finances. Since it already accepted all applicants who met the admissions criteria set by the state, Georgia State could not grow revenue by admitting more students. Thus, retaining students not only bolstered graduation rates, but also revenues. The year over year increases in persistence and graduation rates with larger class sizes helped generate an additional $60 to $70 million for the university. At the same time, the university lost some revenues by helping students avoid excessive credit hours. Renick said, "If a student graduates in four years instead of five and a half, it actually contributes less money to the institution. But we're graduating a lot more students. That has huge benefits financially—including down the road, for giving, since people who drop out of college don't typically give to their former institutions."

Even More Graduates

Looking ahead, Renick and Calhoun-Brown wanted to continue improving Georgia State's graduation rate beyond 54%,[e] but it was a challenging undertaking. Could predictive analytics capabilities be deployed to other contexts, such as identifying students who were likely to exhaust their financial aid? Should they expand the reach of academic initiatives in adaptive learning or course progression? Should they expand the Panther Retention Grant program, in grant value or number of students? Calhoun-Brown said, "Our financial aid director estimates that 75% of students who drop out are doing so for financial reasons, not academic reasons. Panther Retention Grants have a positive return on investment, so that kind of program is very popular with funders, and we've identified some internal funding mechanisms to support it. But you do have to have the money, so there are limits to expanding it."

The team was also assessing the possibility of expanding their scope to student engagement. Renick and Calhoun-Brown suspected that fostering greater student engagement would increase student persistence, graduation rates, and—especially when they took on leadership roles—would help students be better prepared for their future careers. As they considered how to increase student engagement, they needed to consider what data to gather and what interventions to try. "There are very few measures to track how our students are engaging in student life. Are they going to sporting

[e] Factoring in students who left Georgia State and completed degrees elsewhere, more than 75% graduated within six years.

events? Are they accessing particular services? Do they belong to student organizations? The infrastructure for measuring these things doesn't yet exist," Calhoun-Brown observed.

Summer Melt

In fall 2015, Georgia State's Assistant Vice President for Admissions, Scott Burke, ran reports that showed that the percentage of students who indicated that they were planning to attend Georgia State but then did not enroll was steadily increasing (see **Exhibits 17a** and **17b**). Using National Student Clearinghouse data, Georgia State's data analytics team did a deep dive into where the 774 students who did not end up matriculating at Georgia State went. The data analysis team prepared maps of where students were from and where they ended up going. Some enrolled at other state schools or schools closer to their homes, but 278 did not enroll anywhere, and 76% of these students were students of color, 71% were low-income, and 45% were first-generation. Ben Brandon, Senior Director of Student Success Analytics, said, "They completely fell off the face of the higher education landscape."

Burke and the Student Success team began hypothesizing why students might not be matriculating. To build and validate these hypotheses, the admissions office talked with students about the process of enrolling. Brandon said, "The theme that emerged was that it was kind of a frustratingly bureaucratic process to go from being a senior in high school to a freshman in college." Students whose parents had attended college seemed to be able to navigate the process fairly seamlessly, but for other students it was proving to be a significant challenge. Many had difficulty filling out the financial aid forms and others had challenges with "verification," a process by which the federal government selected some financial aid applicants to submit supporting documents. Some abandoned the enrollment process at a step which required them to upload vaccine and medical history, and others dropped out when required to submit high school transcripts, sign up for an orientation session, or sign for their federal loans (see **Exhibit 18**).

With one admissions advisor per 2,450 applicants, the admissions team's capacity was already strained. The application pool was growing each year, and the team was overwhelmed by the volume of student inquiries, which related to a range of topics, including housing and orientation. Sometimes, the admissions team took as long as two weeks to respond to queries. Burke said, "You hear from students things like, 'Well, another school got back to me in a week or a few days or 24 hours.'"

Georgia State had already pursued several measures to reduce summer melt. It switched to new customer relationship management software to become more organized about student outreach, but with little success. Burke said, "We were trying to improve our customer service and our connections to other offices to better support and enroll more students, but we were realizing very small gains." Providing financial incentives was not a viable option due to limited institutional aid. Burke said, "We do offer scholarships and out-of-state tuition waivers, but they are exclusively merit-based." The team hired a few additional admissions counselors, but Burke noted, "The reality is we have space and financial constraints that have prohibited us from being able to staff up in any kind of meaningful way." Changing admissions criteria to admit fewer students who were especially prone to fail to complete enrollment tasks was also not an option, since admissions requirements were set by the state.

Burke had recently attended a forum hosted by AdmitHub, a start-up that was developing an artificial intelligence, two-way chatbot to support students during the admissions process.[65] Burke had seen that Renick was willing to reinvest resources to design innovative solutions if they did not already exist. The Student Success team decided to partner with AdmitHub to adapt its chatbot to help reduce summer melt. The chatbot could be programmed to answer questions about how and when to complete enrollment tasks, such as filling out the Free Application for Federal Student Aid (FAFSA) form or submitting a high school transcript. First, Georgia State and AdmitHub would need to design the

chatbot and create a pilot to test its effectiveness. The pilot would cost $53,000, which amounted to about $15 per enrolling student for the anticipated 2016 entering class of 3,500 students.[66]

Reaching Beyond Georgia State

Georgia State's Student Success team wanted to continue improving the university's retention and graduation rates, and wanted to help other institutions make similar improvements, having already hosted visits by representatives of hundreds of schools who came to learn best practices.

University Innovation Alliance In 2014, Georgia State co-founded the University Innovation Alliance, a group of public research universities committed to "increasing the number and diversity of college graduates in the United States" by finding ways "to do a better job of graduating students across the socioeconomic spectrum, particularly low-income students, first-generation students, and students of color."[67] The Alliance's Executive Director Bridget Burns said, "Research universities have always been powerful engines for innovation. These 11 institutions agreed to engage in a public experiment to tap that same ingenuity to discover, test, and scale innovations focused on student success. We wanted to see how, together, we could make a substantial difference in the number of high-quality degrees we are producing, and specifically for low-income students." The Alliance was prioritizing program evaluation to assess the effectiveness of its member universities' many efforts and intended to hire an external evaluator to conduct assessments and produce reports for member university presidents and funders.[68] Renick and Calhoun-Brown were considering what to suggest in terms of evaluation design, what metrics to use, and how to compare results across institutions.

National Institute for Student Success Georgia State was considering launching a National Institute for Student Success to teach administrative teams from other institutions about its innovative practices and systems. Renick and Calhoun-Brown sought to share best practices in a more systematic way and more firmly establish Georgia State's reputation as a leader in student success. Renick said, "Our hosting has gotten out of hand—we've had as many as 80 or 90 people come to visit on a single day. We've been trying to find a way to manage that and disseminate more effectively." The Institute's goals would be to "1) disseminate evidence-based student success practices; 2) provide mentorship, consultation, and technical assistance to institutions of higher education; 3) conduct scientific research and contribute new insights to the field;" and "4) improve post-secondary outcomes for students across the nation."[69] Renick and Calhoun-Brown had to decide whether to launch the Institute, and if so, whether to offer executive education programs, graduate programs, or both. William Moses, managing director for The Kresge Foundation's Education program, said, "Someone who attends might get a credential focused on student success, or gain work experience by being part of a team at Georgia State. They'd get more in-depth engagement as opposed to a day's worth of meetings."

Looking Ahead

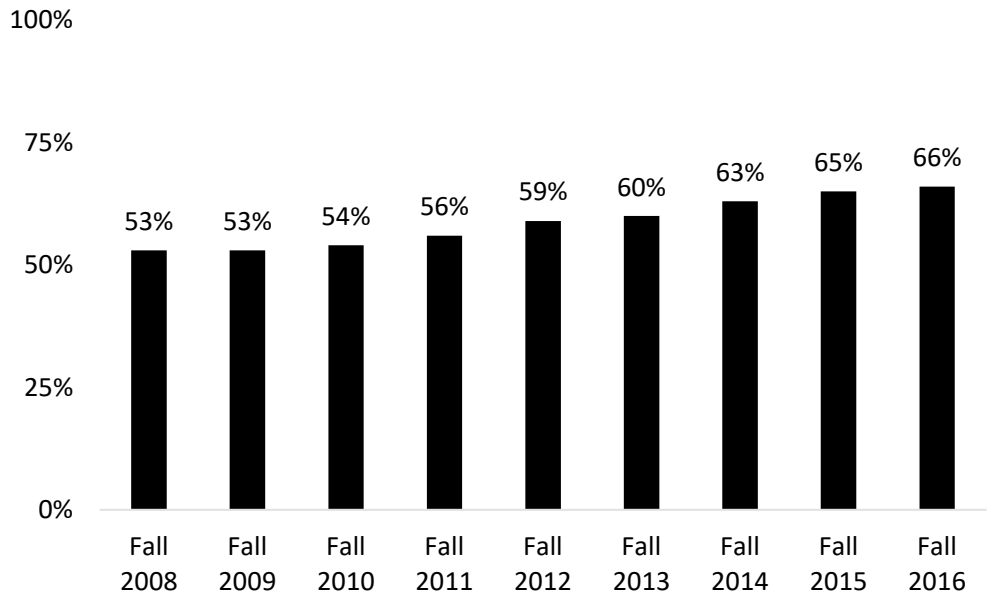
Proud of all they had accomplished so far (see **Exhibit 19**), Renick and Calhoun-Brown now needed to decide where the Student Success team should focus over the next several years. How should they continue to improve graduation rates? How should they address summer melt, and how should they scale their efforts nationally to help students at other institutions achieve academic and career success?

Exhibit 1 Georgia State University Undergraduate Student Demographics, 2005–2015

	Undergraduates			% of Undergraduates			% Change 2015 vs 2005
	2005	2010	2015	2005	2010	2015	
Total Class	18,953	23,488	25,168	100%	100%	100%	33%
Full-Time	13,747	17,547	18,966	73%	75%	75%	38%
Part-Time	5,206	5,941	6,202	27%	25%	25%	19%
Female	11,488	14,006	14,849	61%	60%	59%	29%
Male	7,465	9,482	10,319	39%	40%	41%	38%
Black/African American	6,171	8,509	10,522	33%	36%	42%	71%
White	7,536	8,889	6,688	40%	38%	27%	-11%
Asian	1,845	2,616	3,084	10%	11%	12%	67%
Hispanic/Latinx	855	1,737	2,394	5%	7%	10%	180%
Multiracial	276	784	1,256	1%	3%	5%	355%
Not reported	1,618	353	668	9%	2%	3%	-59%
Non-resident Alien	563	469	506	3%	2%	2%	-10%
American Indian	52	56	38	0.3%	0.2%	0.2%	-27%
Hawaiian/Pacific Islander	37	75	12	0.2%	0.3%	<0.1%	-68%
In State	17,789	22,320	23,575	94%	95%	94%	33%
Out of State	1,164	1,168	1,593	6%	5%	6%	37%
Adult Learners	4,691	5,647	4,943	25%	24%	20%	5%
First Generation	3,486	5124	5,515	18%	22%	22%	58%
Pell Eligible	5,878	11,477	13,653	31%	49%	54%	132%

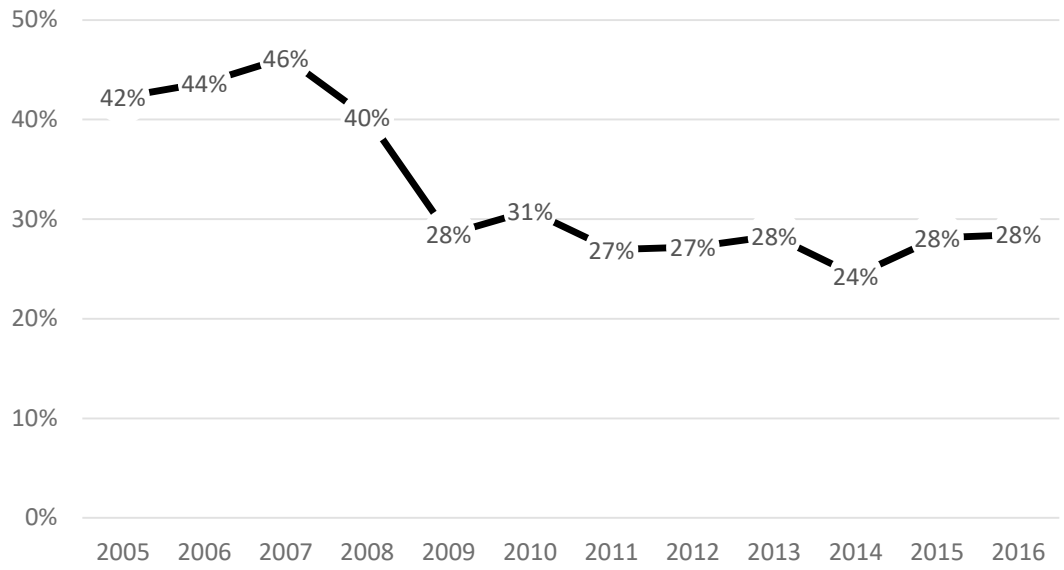
Source: Georgia State University documents.

Exhibit 2 Georgia State University Minority Undergraduate Student Enrollment, 2008–2016



Source: Georgia State University documents.

Exhibit 3 Proportion of Georgia State University's Budget from State Appropriations, 2005–2016



Source: Casewriters, based on data compiled from Georgia State University, Archives for Financial Reports, https://finance.gsu.edu/downloads/financial-reports/, accessed October 2020.

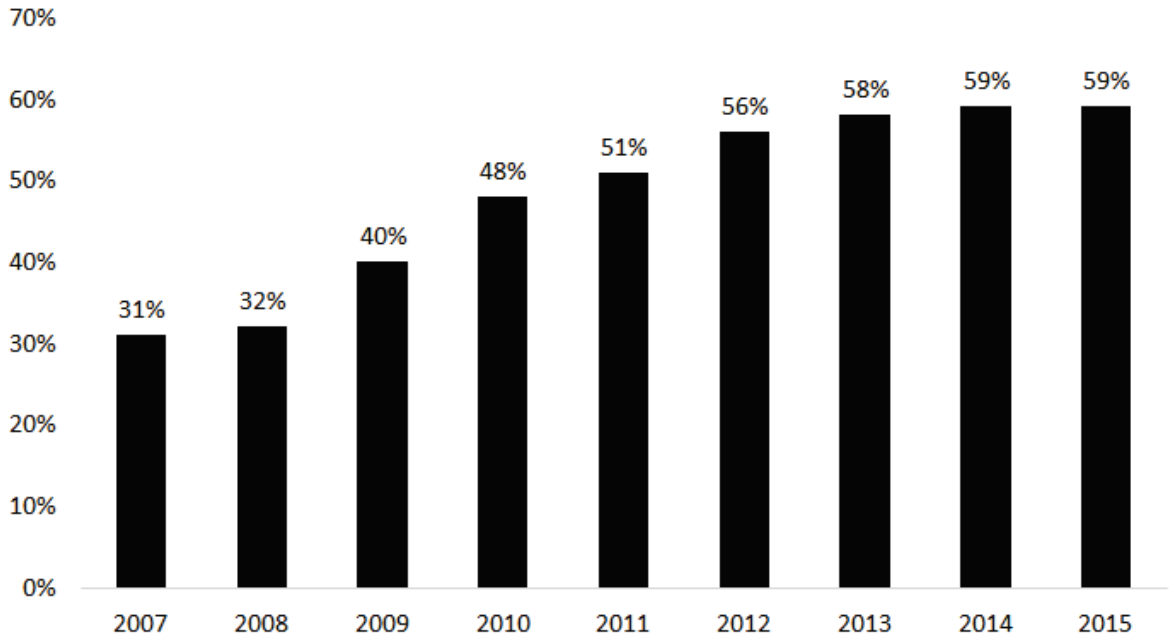
Exhibit 4 U.S. Universities Conferring the Most Bachelor's Degrees to African American Students, 2012–13

University	Degrees Conferred to African American Students in 2012-2013 Academic Year	African Americans as a Percentage of all Bachelor's Degree Graduates	Historically Black College or University?
Georgia State University	1,525	35%	No
Florida Agricultural and Mechanical University	1,398	95%	Yes
University of Central Florida	1,171	10%	No
Howard University	1,139	94%	Yes
North Carolina A&T State University	1,130	87%	Yes
University of Maryland–University College	1,019	26%	No
Saint Leo University	936	32%	No
University of Memphis	934	34%	No
Florida Atlantic University	920	18%	No
Jackson State University	893	90%	Yes

Source: Adapted from Victor M. Borden, "The Top 100 Bachelor's | Master's | Professional Doctoral Degrees Conferred," *Diverse: Issues in Higher Education* 31(18) (October 9, 2014): 20-48, via EBSCOhost, accessed September 2020.

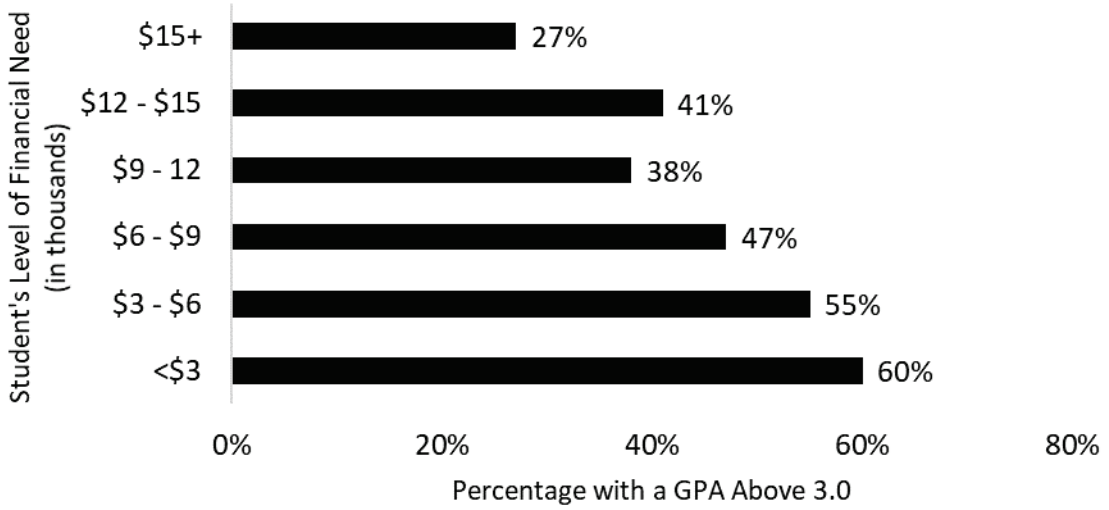
Note: This list excludes for-profit institutions.

Exhibit 5 Georgia State University Undergraduates Receiving Pell Grants, Fall 2007–Fall 2015



Source: Georgia State University, Panther Retention Grants, https://success.gsu.edu/initiatives/panther-retention-grants/, accessed August 2020.

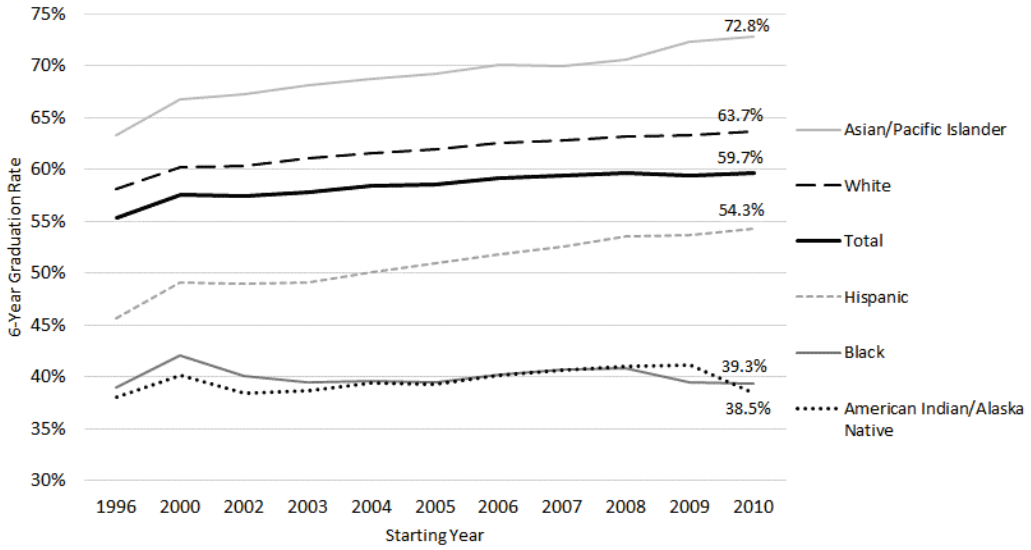
Exhibit 6 Percentage of Georgia State University Undergraduates with a GPA above 3.0, 2009



Source: Adapted from Georgia State University, Panther Retention Grants, https://success.gsu.edu/initiatives/panther-retention-grants/, accessed August 2020.

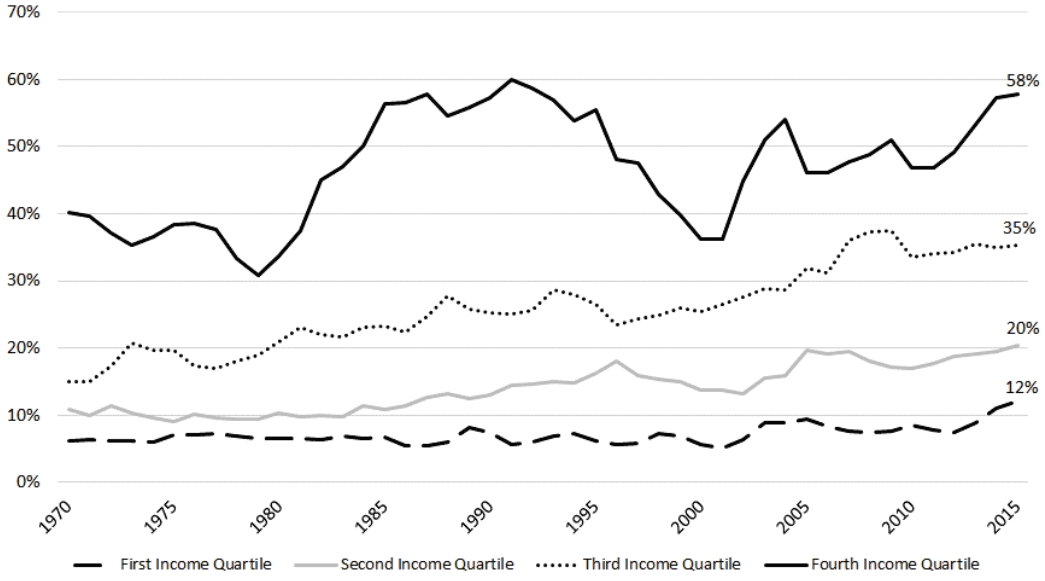
Note: "Level of financial need" indicates the difference between the cost of tuition and the amount that the student can afford to pay. "<$3" includes the average of the values presented for "Neg.-$0" and "$0-$3K" in the original chart.

Exhibit 7 U.S. Bachelor's Students' Six-Year Graduation Rates by Race and Year Entering College, 1996–2010



Source: Adapted from Table 326.10, "Graduation from first institution attended for first-time, full-time bachelor's degree-seeking students at 4-year postsecondary institutions, by race/ethnicity, time to completion, sex, control of institution, and acceptance rate: Selected cohort entry years, 1996 through 2011," Digest of Education Statistics, National Center for Education Statistics, https://nces.ed.gov/programs/digest/d18/tables/dt18_326.10.asp, accessed August 2020.

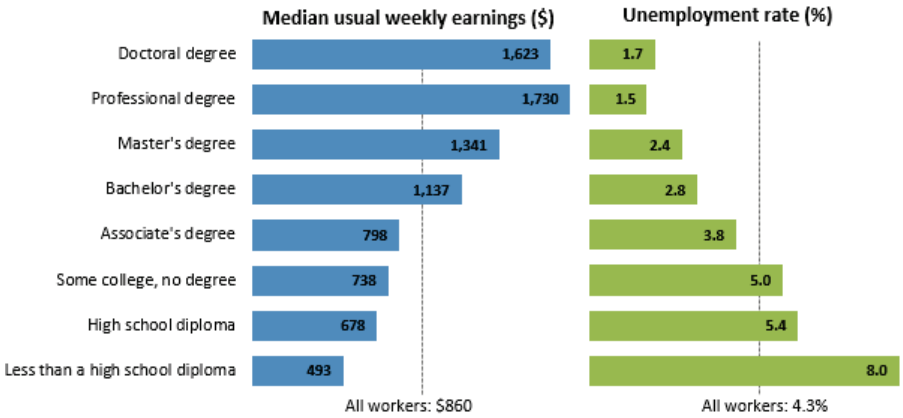
Exhibit 8 U.S. Bachelor's Degree Attainment by Age 24, by Family Income Quartile, 1970–2015



Source: Adapted from "Equity Indicator 5a: Estimated bachelor's degree attainment rate by age 24 for dependent family members by family income quartile: 1970 to 2015" in "Indicators of Higher Education Equity in the United States," Pell Institute, 2017, http://pellinstitute.org/indicators/reports_2017_data.shtml, accessed August 2020.

Notes: First Income Quartile refers to family income of less than $37,679; Second Income Quartile $37,679 to $68,494; Third Income Quartile $68,494 to $119,765; Fourth Income Quartile $119,765 and above, all pertaining to family income for dependent 18- to 24-year-olds in 2015 according to the U.S. Census Bureau's Current Population Survey.

Exhibit 9 Earnings and Employment Rates by Educational Attainment, 2015



Source: Dennis Vilorio, "Education matters," U.S. Bureau of Labor Statistics, Career Outlook, March 2016, https://www.bls.gov/careeroutlook/2016/data-on-display/education-matters.htm, accessed August 2020.

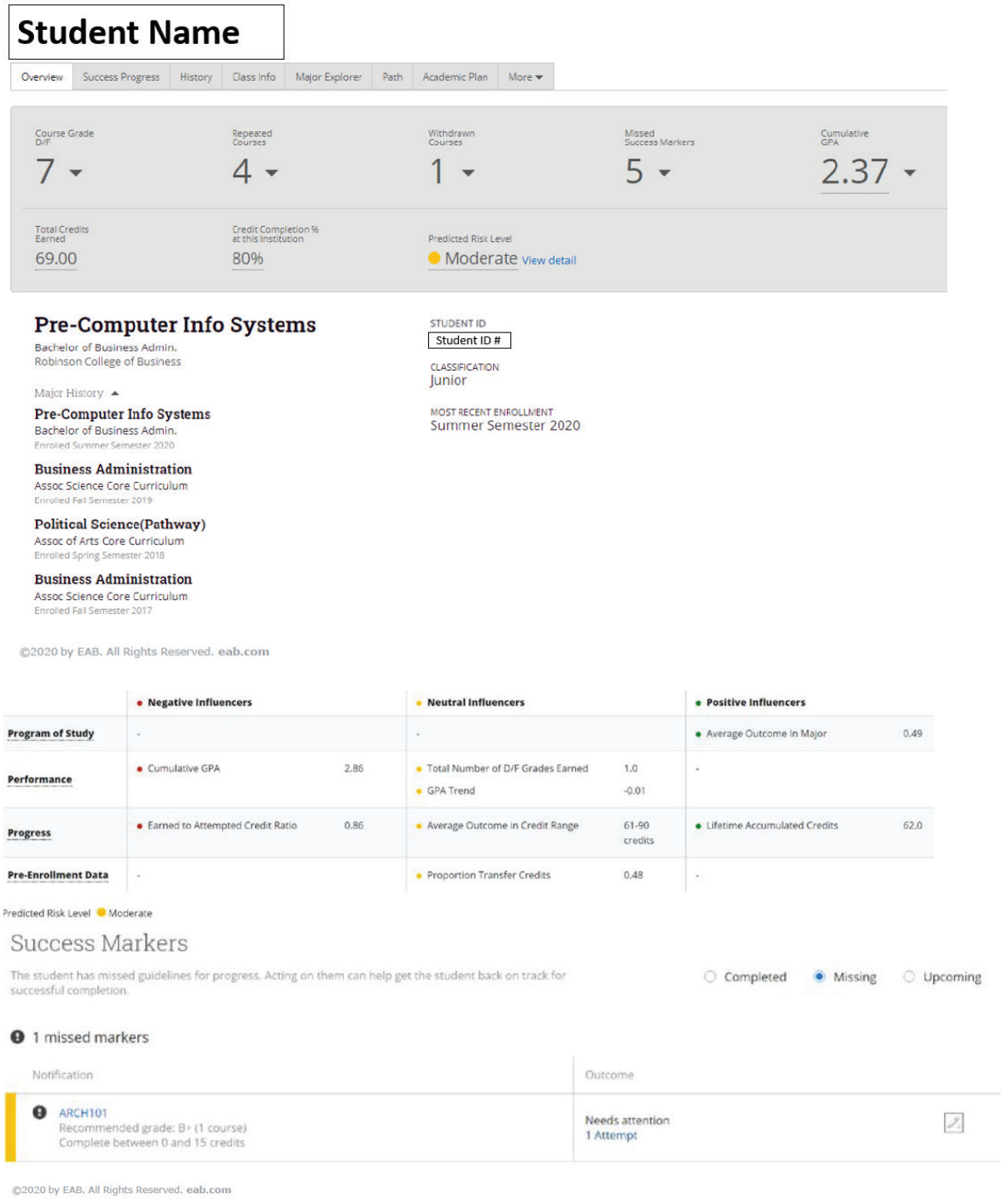
Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.

Exhibit 10 Progress towards Key Student Success Goals as of 2015

		2010 Baseline	2015 Status	2020 Goal
Student Population	Undergraduate applicants	12,105	13,579	Not applicable
	Undergraduate enrollment	23,488	25,168	Not applicable
Growth	Undergraduate degrees conferred	4,222	4,788	5,500
Graduation Rate	6-year graduation rate	48%	54%	60%
Key Undergraduate Student Demographics	Enrollment of first-generation students	5,124	5,515	6,661
	Enrollment of Pell-eligible students	11,477	13,653	14,920
	Enrollment of adult learners	5,647	4,943	7,341

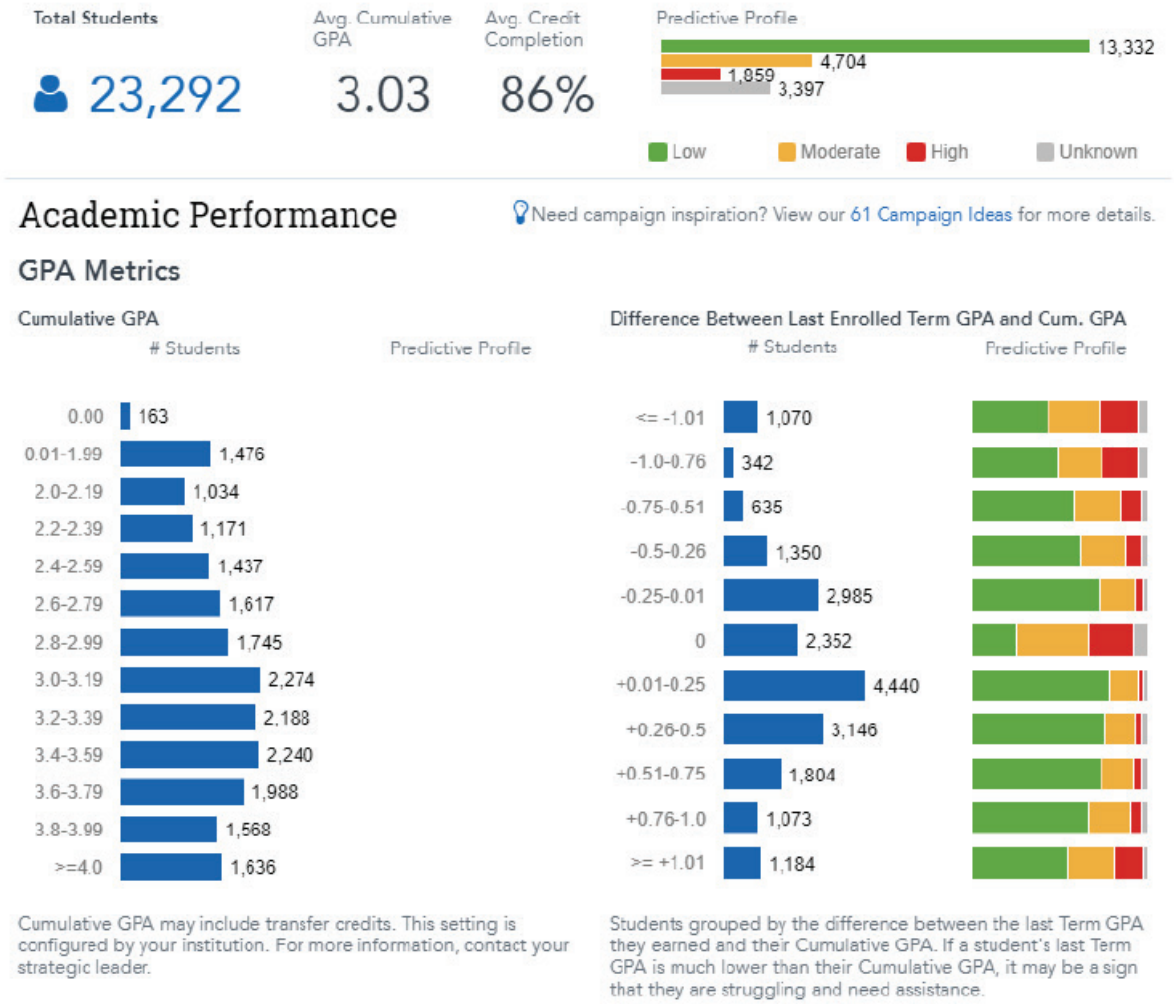
Source: Adapted from "A University-wide Plan for Student Success," Georgia State University, College Completion Plan 2012, p. 10, https://enrollment.gsu.edu/wp-content/blogs.dir/57/files/2013/09/GSU_College_Completion_Plan_09-06-12.pdf, accessed August 2020, and internal Georgia State University documents.

Exhibit 11a Screenshots of Navigate Dashboard for Advisors



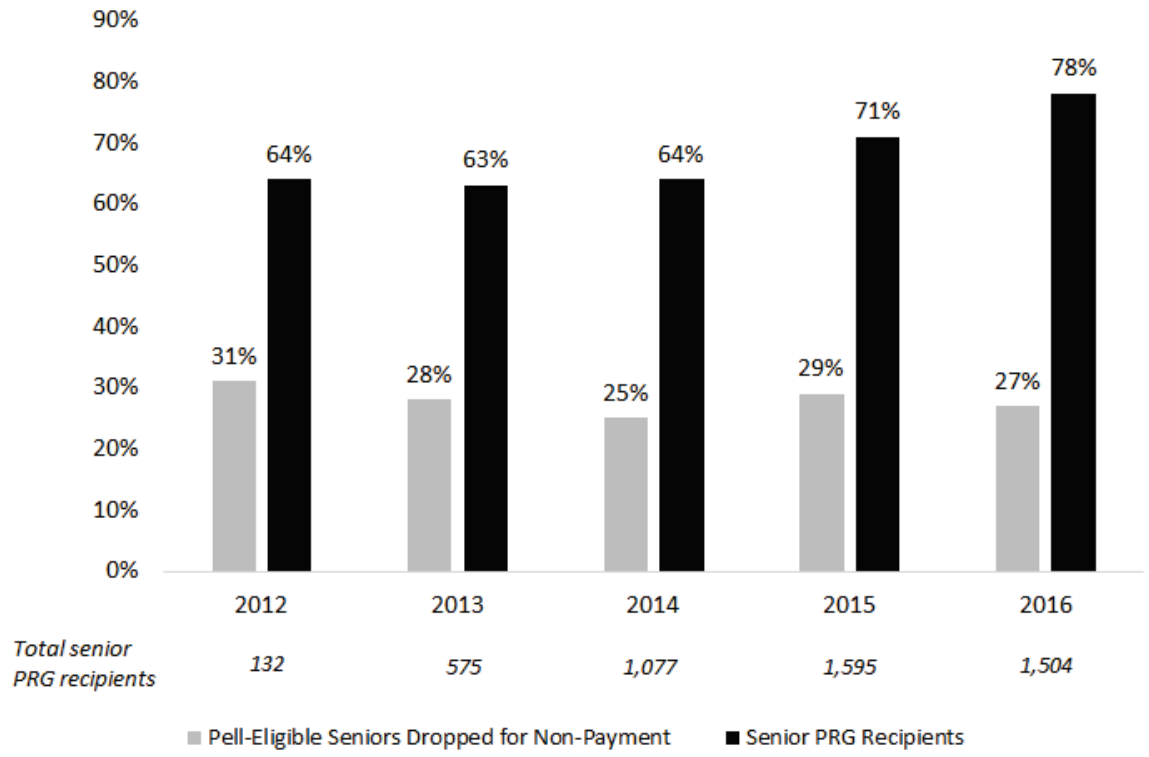
Source: EAB documents.

Exhibit 11b Aggregate Student Data from Navigate



Source: EAB documents.

Exhibit 12 Graduation Rates for Senior Panther Retention Grant (PRG) Recipients Compared to a Counterfactual Group, 2012–2016



Source: Boston Consulting Group (BCG), "Georgia State University Panther Retention Grant ROI Analysis," 2018, https://success.gsu.edu/download/panther-retention-grant-roi-analysis-2018/, accessed August 2020.

Note: The percentage represents the number of seniors who graduated within three terms. The comparison group is Pell-eligible seniors who were dropped due to non-payment for a given fall, spring, or summer term within an academic year.

Exhibit 13 Georgia State University Bachelor's Degree Student Graduation Rates, 2003–2015

	2003	2010	2015
6-Year Graduation Rate	32%	48%	54%
6-Year: African American	29%	51%	58%
6-Year: Hispanic/Latinx	22%	58%	58%
6-Year: Pell	N/A	51%	55%
5-Year Graduation Rate	N/A	40%	46%
4-Year Graduation Rate	N/A	21%	23%

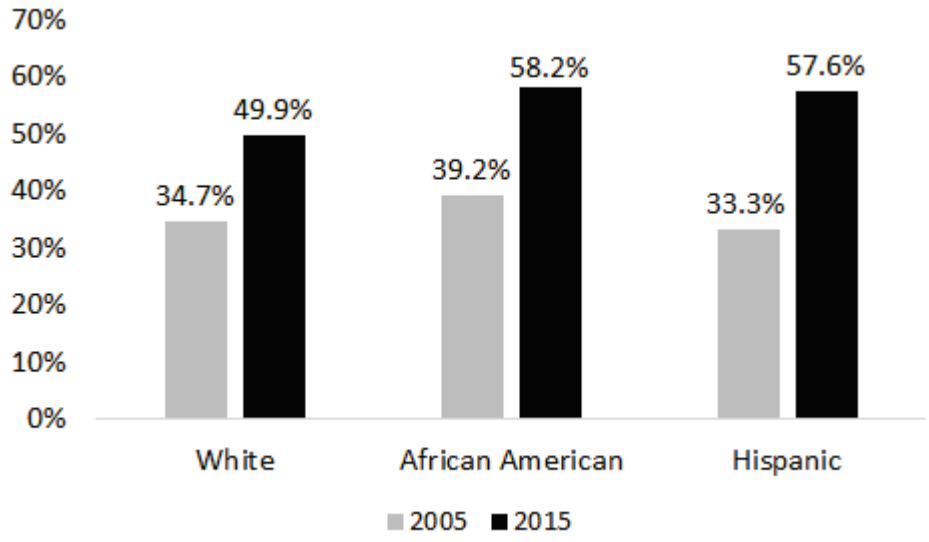
Source: Adapted from page 2 and Chart 2, "2017 Report – Georgia State University – Complete College Georgia," Georgia State University, 2016, https://success.gsu.edu/files/2017/01/Georgia-State-University-2016-Complete-College-Report-with-Appendix-10-26-16.pdf, accessed August 2020.

Exhibit 14 Georgia State University Bachelor's Degree Conferrals, 2010–2011 and 2014–2015

	2010-2011		2014-2015		% Change 2014-15 vs 2010-11
Total Bachelor Degree Conferrals	**4,222**	**100%**	**4,788**	**100%**	13%
White	1,890	45%	1,856	39%	-2%
Black or African American	1,388	33%	1,829	38%	32%
Asian	548	13%	536	11%	-2%
More Than One Race	170	4%	184	4%	8%
American Indian or Alaska Native	13	0%	19	0%	46%
Native Hawaiian or Pacific Islander	19	0%	8	0%	-58%
Not reported	194	5%	356	7%	84%
Hispanic/Latinx	294	7%	435	9%	48%
Non-Hispanic/Latinx	3,690	87%	4,107	86%	11%
Not Reported	238	6%	246	5%	3%
Adult Learners	1,566	37%	1,700	36%	9%
First Generation	1,117	26%	1,360	28%	22%
Pell Eligible	2,403	57%	3,280	69%	36%

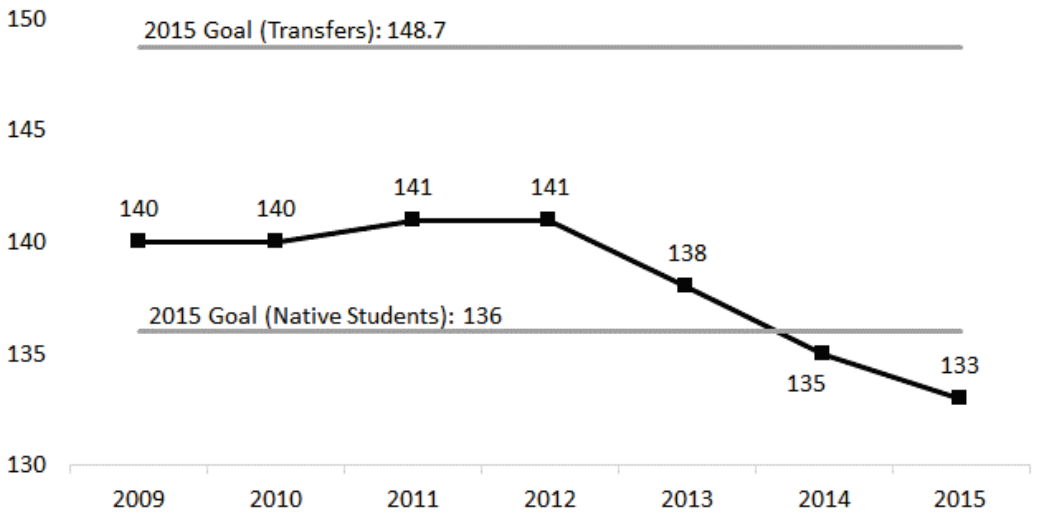
Source: Adapted from Chart 4, "2018 Report – Georgia State University – Complete College Georgia," Georgia State University, 2018, p. 23, https://success.gsu.edu/download/2018-status-report-georgia-state-university-complete-college-georgia/, accessed August 2020.

Exhibit 15 Georgia State University's 6-Year Bachelor's Graduation Rates Among First-Time, First-Year Freshmen, 2005 and 2015



Source: Adapted from Chart 9, "2016 Report – Georgia State University – Complete College Georgia," Georgia State University, 2018, p. 20, https://success.gsu.edu/files/2017/01/Georgia-State-University-2016-Complete-College-Report-with-Appendix-10-26-16.pdf, accessed June 2020.

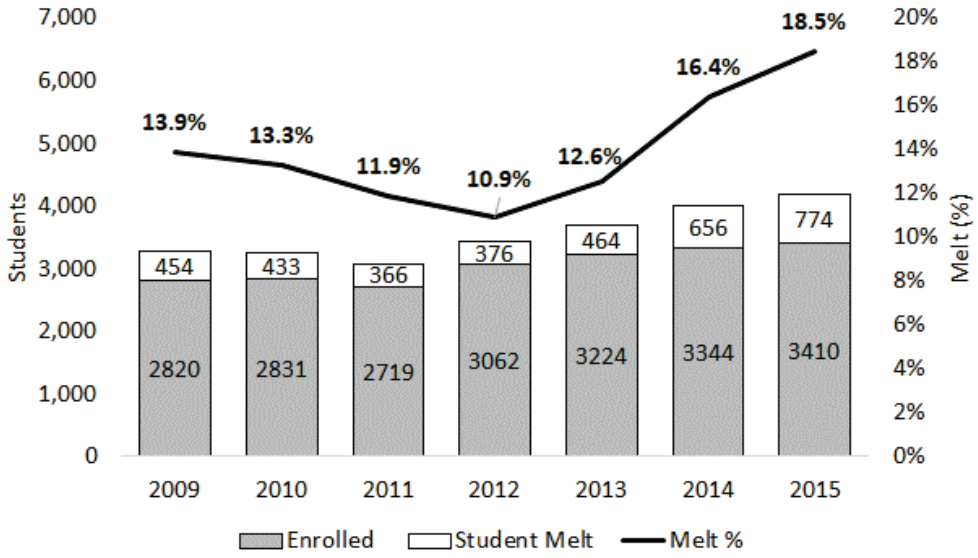
Exhibit 16 Georgia State University Bachelor's Students' Credit Hours at Graduation: Bachelor's Students, 2009–2015



Source: Adapted from Chart 8, "2016 Report – Georgia State University – Complete College Georgia," Georgia State University, 2018, p. 20, https://success.gsu.edu/files/2017/01/Georgia-State-University-2016-Complete-College-Report-with-Appendix-10-26-16.pdf; "A University-wide Plan for Student Success," Georgia State University, 2012, p. 10, https://enrollment.gsu.edu/wp-content/blogs.dir/57/files/2013/09/GSU_College_Completion_Plan_09-06-12.pdf; both accessed June 2020.

Note: Bachelor's students needed at least 120 credits to graduate. Transfer students represented approximately 60% of the undergraduate student body, and native students (i.e., non-transfers) represented approximately 40%. Totals are for the academic year beginning the fall of the stated year (e.g., 2010 refers to the 2010-11 academic year).

Exhibit 17a Georgia State University's Summer Melt (%), Fall 2009–Fall 2015



Source: Adapted from Georgia State University documents.

Exhibit 17b Georgia State University's Summer Melt Demographics, Fall 2015

Race	% of All Races	Percent First Generation	Median Unmet Need
Black or African American	52%	43%	$20.309
White	25%	36%	$12,637
Asian	11%	40%	$11,699
Multiracial	7%	30%	$14,834
Not reported	4%	61%	$17,857
American Indian/Alaskan Native	Less Than 10 Students		
Native Hawaiian or Pacific Islander	Less Than 10 Students		

Source: Georgia State University documents.

Exhibit 18 Steps for Incoming Georgia State University Students

1. Set up CampusID, Email, and Web Services.
   - Set up Your CampusID.
   - Get DUO.
   - Set up PantherMail.
2. Log in to Panther Access to Web Services (PAWS).
3. Fill out your FAFSA Application.
4. Submit intent to enroll.
5. Apply for housing (optional).
6. Verify lawful presence.
7. Sign up for New Student Orientation.
8. Register for placement tests (if needed).
9. Submit required immunizations (MMR, Tetanus/Diptheria, Varicella, and Hepatitis B, plus Meningitis for those in University Housing).
10. Review financial aid package.
11. Plan for parking and transportation.
12. Send final transcripts and test scores.
13. Remove emergency contact hold
14. Meet with your academic advisor.

Source: Adapted from Georgia State University, "Next Steps for Accepted Students," https://admissions.gsu.edu/bachelors-degree/accepted-students/#campus-identity, accessed August 2020.

Note: Some of these steps could be completed simultaneously.

Exhibit 19 Summary of Select Student Success Initiatives, 2008–2016

Initiative	Year Introduced	Summary
Adaptive Learning	2008	Computer lab-based classes for prerequisite math classes with high non-pass rates.
Keep HOPE Alive	2008	Two $500 grants for students who lost their HOPE scholarships and who agreed to attend academic workshops, advising sessions, and financial literacy training.
Panther Retention Grants	2011	Grants averaging less than $2,000, awarded to students who were on track for graduation but had a low outstanding balance at the start of the semester.
Advising via Predictive Advising	2012	Navigate system that predicted a student's risk of not graduating based on various academic factors.
Business/Nursing Program Changes	2012	Changes to the curriculum and GPA requirements of programs with lower average graduation rates.
Meta-Majors	2013	Eight broad academic areas including related majors (STEM, Arts & Humanities, Health, etc.), which Freshman Learning Communities were organized around.

Source: Casewriters.

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