Eliminating Equity Gaps Through Analytics and Institutional Change

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The Challenge in Front of Us

Baccalaureate Degree Attainment by Age 24 by Family Income Quartile

Bachelor's Degree Attainment Rate (moving 3-year average)

- **Top Income Quartile**: 82.4%
- **Third Income Quartile**: 36.1%
- **Second Income Quartile**: 16.5%
- **Bottom Income Quartile**: 8.3%

<table>
<thead>
<tr>
<th>State</th>
<th>Percent of Low-Income Students in Public Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>51%</td>
</tr>
<tr>
<td>Mississippi</td>
<td>71%</td>
</tr>
<tr>
<td>N. Mexico</td>
<td>68%</td>
</tr>
<tr>
<td>Louisiana</td>
<td>65%</td>
</tr>
<tr>
<td>Arkansas</td>
<td>61%</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>61%</td>
</tr>
<tr>
<td>Texas</td>
<td>60%</td>
</tr>
<tr>
<td>Georgia</td>
<td>60%</td>
</tr>
<tr>
<td>Utah</td>
<td>59%</td>
</tr>
<tr>
<td>Florida</td>
<td>59%</td>
</tr>
<tr>
<td>S. Carolina</td>
<td>58%</td>
</tr>
<tr>
<td>Tennessee</td>
<td>58%</td>
</tr>
<tr>
<td>Alabama</td>
<td>58%</td>
</tr>
<tr>
<td>California</td>
<td>55%</td>
</tr>
<tr>
<td>N. Carolina</td>
<td>53%</td>
</tr>
<tr>
<td>W. Virginia</td>
<td>52%</td>
</tr>
<tr>
<td>Delaware</td>
<td>51%</td>
</tr>
<tr>
<td>Nevada</td>
<td>51%</td>
</tr>
<tr>
<td>Arizona</td>
<td>51%</td>
</tr>
<tr>
<td>Hawaii</td>
<td>51%</td>
</tr>
<tr>
<td>Illinois</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source: Southern Education Fund
Changing Demographics

PERCENT OF LOW INCOME STUDENTS IN U.S. PUBLIC SCHOOLS 2013
National Average: 51%

SOUTHERN EDUCATION FOUNDATION | SOUTHERNEDUCATION.ORG
Data Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data
• 34,000 Students on the Atlanta campus
• 50,000+ Students as of 2016 with Perimeter College Consolidation
Graduation Rates by Race & Ethnicity

Where we were: 2003

- **WHITE**: 31.6%
- **AFRICAN AMERICAN**: 25.6%
- **HISPANIC**: 22%
Changing Demographics: Race & Ethnicity

Minorities

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Fall 2008</td>
<td>53%</td>
</tr>
<tr>
<td>Fall 2009</td>
<td>53%</td>
</tr>
<tr>
<td>Fall 2010</td>
<td>54%</td>
</tr>
<tr>
<td>Fall 2011</td>
<td>56%</td>
</tr>
<tr>
<td>Fall 2012</td>
<td>59%</td>
</tr>
<tr>
<td>Fall 2013</td>
<td>60%</td>
</tr>
<tr>
<td>Fall 2014</td>
<td>63%</td>
</tr>
<tr>
<td>Fall 2015</td>
<td>65%</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>66%</td>
</tr>
<tr>
<td>Fall 2017</td>
<td>67%</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>71%</td>
</tr>
</tbody>
</table>
Low-Income Students

Percent of Georgia State Undergraduates on PELL

- Fall 2007: 31%
- Fall 2008: 32%
- Fall 2009: 40%
- Fall 2010: 48%
- Fall 2011: 51%
- Fall 2012: 56%
- Fall 2013: 58%
- Fall 2014: 59%
- Fall 2015: 59%
- Fall 2016: 59%
- Fall 2017: 59%
SAT SCORES

-33 points
- $40 million Appropriations Cuts
Are We the Problem?
19%
Percent of Confirmed Freshmen Who Did Not Enroll Summer 2015
Confirmed GSU Freshman Who Never Attended Any College: 278

- Non-white: 76%
- First Generation: 45%
- Low Income: 71%
- Avg. High School GPA: 3.34
The Hidden Obstacles to Enrollment

- Federal Financial Aid Application
- Verification Request
- State of Georgia Immunization Proof
- Taking Placement Exams
- Registering for Classes
Portal to Guide Students Through Next Steps

Which resources matter most to you?

- Select any of our student services that interest you, and we'll add appropriate information to your path.

A Few Recommendations:

- **Child Care**
  - On campus and nearby child care options to help while you are in class.

- **Commuting Services**
  - Learn the different ways you can get to and from campus.

- **First Generation to Attend College**
  - Resources to help new students learn the ropes and lingo of college.

- **Student Technologies**
  - Get help with all apps, gadgets, and sites that can enhance your campus experience.

All Student Services:

- **Tutoring & Academic Support**
  - A great resource for help outside the classroom for your work inside the classroom.

- **Career Guidance**
  - Helping you find the right career path and prepare you for the job market. It's never too early to start!

- **Mentorships**
  - Helping you connect with experience students who can help guide your way.

- **Housing Services**
  - Resources to help you find a place to stay near campus.

- **Clubs and Activities**
  - Grow and have fun! Get involved in one of our many on-campus activities.

- **Disability Services**
  - Providing support and equipment to qualified students with physical, mental, or educational needs.
24/7 Responses Using a Chatbot on Smart Devices
Three-Year Drop in Summer Melt: 37%

+362 Students per year
Average Number of Majors Cycled Through By Graduating Seniors in 2010

2.6
Overwhelming Choices

- LOST
- CONFUSED
- UNSURE
- UNCLEAR
- PERPLEXED
- DISORIENTED
- BEWILDERED
Freshman Learning Communities & Meta Majors

Freshman Learning Communities with block schedules of 5 to 6 courses:
95% of non-Honors freshmen (Opt-out model)

1st Year GPA

<table>
<thead>
<tr>
<th></th>
<th>No FLC</th>
<th>FLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year GPA</td>
<td>2.73</td>
<td>2.96</td>
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Retention

<table>
<thead>
<tr>
<th></th>
<th>No FLC</th>
<th>FLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention</td>
<td>81%</td>
<td>85%</td>
</tr>
</tbody>
</table>
Choice Architecture: Meta Majors

- Business
- Education
- Exploratory
- STEM
- Humanities & Arts
- Health Professions
- Policy/Social Science
# Academic Guides with Live Job Data

## Program Picker

Take control of your future! Explore majors and certificates that work for you.

<table>
<thead>
<tr>
<th>You chose this...</th>
<th>Would you consider...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing A.S.</td>
<td>Medical Office Assistant Certificate</td>
</tr>
<tr>
<td>Learn More</td>
<td>Learn More</td>
</tr>
</tbody>
</table>

- **Classes/Credits**: 20 classes / 60 credits
- **Time to Complete**: 2 years
- **Financial Aid**: Selected
- **Total Tuition**: $9,176 in state
- **Outcomes**: High rate of transfer to 4-year colleges
- **Average Salary**: $38,500 / $51,100 with BA degree
- **Hiring Demand**: 129 job posts

<table>
<thead>
<tr>
<th></th>
<th>Radiologic Technology A.A.S</th>
<th>Health Studies A.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn More</td>
<td>Learn More</td>
<td>Learn More</td>
</tr>
</tbody>
</table>

- **Classes/Credits**: 8 classes / 24 credits
- **Time to Complete**: 1 year
- **Financial Aid**: May not be Financial Aid eligible
- **Total Tuition**: $3,641 in state
- **Outcomes**: Students seek employment or another stackable certificate
- **Average Salary**: $29,129
- **Hiring Demand**: 137 job posts

- **Classes/Credits**: 20 classes / 55 credits
- **Time to Complete**: 2 years
- **Financial Aid**: Selected
- **Total Tuition**: $8,850 in state
- **Outcomes**: Most students seek employment post-graduation
- **Average Salary**: $37,819
- **Hiring Demand**: 459 job posts

- **Classes/Credits**: 20 classes / 62 credits
- **Time to Complete**: 2.25 years
- **Financial Aid**: Selected
- **Total Tuition**: $9,427 in state
- **Outcomes**: High rate of transfer to 4-year colleges
- **Average Salary**: $42,774 / $51,553 with BS degree
- **Hiring Demand**: 661 job posts
Student One-On-One Meetings with Career Counselors

685% 3-year increase

809

2015

6,355

2018
1,000+

Number of Fully Registered Students Being Dropped Each Semester for Non-Payment in 2010-2011
< 30%

Likelihood that a college student who stops out for financial reasons will ever complete degree at the institution
Who were we dropping

- Seniors
- Academically on track
- Balance below $1,500
Panther Retention Grants

AVERAGE GRANT $900

Graduated: 86.5%

Grant Recipients
Graduated 2016-17: 1,321
Panther Retention Grants

13,000+

Grants awarded since 2011
5,760

Students Who Dropped Out of Georgia State in 2010
Advisement: GPS Advising

Predictive Analytics Project with EAB

10 YEARS OF DATA | 2.5 MILLION GRADES | 800+ ANALYTICS-BASED ALERTS

144,000 STUDENT RECORDS | 30,000 STUDENTS TRACKED DAILY
## B.S. in Chemistry

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>SEMESTER 2</th>
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<tbody>
<tr>
<td>• Complete 1 of ENGL 1101, ENGL 1102 or ENGL 1103 (C or Better)</td>
<td>• Complete ENGL 1102 or 1103 (C or Better)</td>
</tr>
<tr>
<td>• Complete MATH 1113 or Higher (B- or Better)</td>
<td>• Complete MATH 2211 or Higher (B- or Better)</td>
</tr>
<tr>
<td>• Complete CHEM 1211K (B- or Better)</td>
<td>• Complete CHEM 1212K (B- or Better)</td>
</tr>
<tr>
<td>• Complete CHEM 1211K (B- or Better)</td>
<td>• Maintain a cumulative GPA of 2.25 or Better</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SEMESTER 3</th>
<th>SEMESTER 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Complete CHEM 2400 (B- or Better)</td>
<td>• Complete CHEM 3410 (C or better)</td>
</tr>
<tr>
<td>• Complete MATH 2212 (C or better)</td>
<td>• PHY 2212k (B- or Better) (C or better)</td>
</tr>
<tr>
<td>• Complete PHY 2211k (C or better)</td>
<td>• Maintain a cumulative GPA of 2.25 or Better</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SEMESTER 5</th>
<th>SEMESTER 6</th>
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<tbody>
<tr>
<td>• Complete CHEM 4000 with a C or Better</td>
<td>• Complete CHEM 4010 with a C or Better</td>
</tr>
<tr>
<td>• Complete CHEM 4110 with a C or Better</td>
<td>• Complete CHEM 4120 with a C or Better</td>
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<table>
<thead>
<tr>
<th>SEMESTER 7</th>
<th>SEMESTER 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Complete CHEM 4160 with a B- or better</td>
<td>• Complete CHEM 4190 with a C or Better</td>
</tr>
</tbody>
</table>
Performance in ‘Marker’ Courses

Graduation Rate in Major by Introductory Course Grade

**Introduction to Chemistry**  
Natural Science majors

- A: 70.0%
- B: 66.7%
- C: 39.5%
- D/F: 8.3%

**Comparative Politics**  
Political Science majors

- A: 81.8%
- B: 73.9%
- C: 25.0%
- D/F: 6.2%

**Music Theory I**  
Music majors

- A: 66.7%
- B: 55.5%
- C: 12.5%
- D/F: 0.0%
Anomalous Electronic Footprint

Activity Clusters

Weekly WIFI Logins vs. Weekly GLUU Logins

Example Plots and Distance Measures For Students Who Recently Switched Groups

Example 1

Example 2

Example 3

Example 4

Example 5

Example 6
Results: Increased Retention

Increased Average First Term Retention
Fall to Spring Retention

- Fall 2010: 83.4%
- Fall 2011: 84.6%
- Fall 2012: 87.9%
- Fall 2013: 89.0%
Results: Decline in Time to Degree

Credit Hours at Completion: All Bachelors Students

- 2009-10: 140
- 2010-11: 140
- 2011-12: 141
- 2012-13: 141
- 2013-14: 138
- 2014-15: 135
- 2015-16: 133

Decline in Time to Degree
ROI for Students

$18 million

Savings to the Class of 2018 in tuition and fees when compared to the Class of 2012
Confounding Expectations

STEM Degrees Conferred Since 2011 (enrollment change)

Black +114% (14%)
Black Male +153% (15%)
Hispanic +275% (24%)
Impacts
The Calculus of Student Success: ROI

1-point increase in retention = \textbf{325 students}

Average student tuition & fees annually/student = $9,800

ROI for each 1-point increase = \textbf{$3.18 million/year}
Georgia State Undergraduate Degrees Awarded

2010-11: 4,222  
2016-17: 7,047

INCREASE: +2,825 (+67%)
## Bachelor’s Degrees Awarded Annually

<table>
<thead>
<tr>
<th></th>
<th>2009-10</th>
<th>2017 - 18</th>
<th>6-Year Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>African American</strong></td>
<td>1,001</td>
<td>2,040</td>
<td>+1,039</td>
<td>+103%</td>
</tr>
<tr>
<td><strong>Pell</strong></td>
<td>1,498</td>
<td>3,428</td>
<td>+1,930</td>
<td>+129%</td>
</tr>
<tr>
<td><strong>Hispanic</strong></td>
<td>196</td>
<td>557</td>
<td>+361</td>
<td>+184%</td>
</tr>
</tbody>
</table>
Graduation Rates by Race & Ethnicity

<table>
<thead>
<tr>
<th>Race</th>
<th>2003</th>
<th>Today</th>
<th>Today, with Clearinghouse Data Added</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>32%</td>
<td>50%</td>
<td>78%</td>
</tr>
<tr>
<td>African American</td>
<td>26%</td>
<td>58%</td>
<td>78%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>22%</td>
<td>57%</td>
<td>81%</td>
</tr>
</tbody>
</table>
#1 in Degrees Conferred to African Americans

## Top 100 Degree Producers: Non-Profit Universities

2016 African-American Bachelor's - All Disciplines Combined

<table>
<thead>
<tr>
<th>Institutions</th>
<th>State</th>
<th>Total</th>
<th>%Grads</th>
<th>%Chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Georgia State University</td>
<td>GA</td>
<td>1805</td>
<td>38%</td>
<td>8%</td>
</tr>
<tr>
<td>2 FAMU</td>
<td>FL</td>
<td>1584</td>
<td>95%</td>
<td>6%</td>
</tr>
<tr>
<td>3 University of Maryland-University College</td>
<td>MD</td>
<td>1409</td>
<td>26%</td>
<td>19%</td>
</tr>
<tr>
<td>4 University of Central Florida</td>
<td>FL</td>
<td>1316</td>
<td>10%</td>
<td>1%</td>
</tr>
<tr>
<td>5 North Carolina A &amp; T State University</td>
<td>NC</td>
<td>1196</td>
<td>80%</td>
<td>7%</td>
</tr>
<tr>
<td>6 Howard University</td>
<td>D.C.</td>
<td>1160</td>
<td>90%</td>
<td>-6%</td>
</tr>
<tr>
<td>7 Florida Atlantic University</td>
<td>FL</td>
<td>1087</td>
<td>19%</td>
<td>7%</td>
</tr>
<tr>
<td>8 Florida International University</td>
<td>FL</td>
<td>1020</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>9 University of Memphis</td>
<td>TN</td>
<td>1011</td>
<td>33%</td>
<td>3%</td>
</tr>
<tr>
<td>10 The University of Texas at Arlington</td>
<td>TX</td>
<td>992</td>
<td>13%</td>
<td>-7%</td>
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Source: Diverse Issues in Higher Education
Perimeter College 3-Year Graduation Rates

Consolidation with Georgia State

Perimeter 3-Yr Grad + Transfer 58%
<table>
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<tr>
<th></th>
<th>2014-15</th>
<th>2017-18</th>
</tr>
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<td><strong>African American</strong></td>
<td>4%</td>
<td>12%</td>
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<tr>
<td><strong>White</strong></td>
<td>10%</td>
<td>15%</td>
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<tr>
<td><strong>Hispanic</strong></td>
<td>6%</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Pell</strong></td>
<td>5%</td>
<td>15%</td>
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