Eliminating Achievement Gaps Through Data and Analytics

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Vice President for Enrollment Management & Student Success and Vice Provost
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%

• 32,500 Students on the Atlanta campus
• Research University status achieved in 1995
• 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

Underrepresented Minorities

- Fall 2008: 53%
- Fall 2009: 54%
- Fall 2010: 56%
- Fall 2011: 59%
- Fall 2012: 60%
- Fall 2013: 63%
- Fall 2014: 65%
- Fall 2015: 66%
- Fall 2016: 67%

Years: Fall 2008, Fall 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Fall 2015, Fall 2016, Fall 2017
Low-Income Students

Percent of Georgia State Undergraduates on PELL

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

-33 points
Are We the Problem?
Challenge:
Summer Melt
Summer Melt

Fall 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
Personalized Interactions Before Enrollment

Help us get to know David...
- I work more than 20 hrs. per week
- I'm first in my family to attend college
- English is my second language
- I'm a parent
- I'm a veteran
- I have a disability

In high school, what was your...
- favorite class?
- hardest class?
  - art
  - math
  - english/writing
  - music
  - history
  - phys. ed
  - geography
  - science

What are you interested in?
- community service
- finance & business
- food & cooking
- music & arts
- professional development
- science & technology
- sports
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 Chat Bots on Smart Devices

Number of Knowledge-Based Texts Sent Over First 3 Months: 201,000
One-Year Drop in Summer Melt: 22%

+324 Students
Challenge:
Getting Off to a Good Start
The Human Cost of Inaction

50%

First-Year Retention Rates for Academically At-Risk Freshmen in 2011
Summer Success Academy

400 highest risk freshmen by academic analytics
Summer session before freshman fall with 7 credit hours of bachelor’s-level work
Intensive advisement
Academic skills
Financial literacy training
Team/mindset building

Denzel,

Congratulations on your acceptance to Georgia State University! While your acceptance letter makes its way to you via post, we would like to provide you with additional information regarding your specialized admissions status.

As we reviewed your application for fall admission, we recognized you as a perfect candidate for our Success Academy. This is a wonderful opportunity to move on campus early, start using valuable campus resources, meet your peers, and take initiative and develop the skills that will help you make the most of your college education.

You may view your acceptance letter by logging in to the Check Your Status portal. We realize you may have questions about the program prior to enrolling, and we're here to help! In addition to the Success Academy website, we've put together the following Success Academy brochure.

Should you have any additional questions, please feel free to contact Amina Moss, Success Academy liaison.
Retention Rate of Summer Success Academy Students In 2016

87%
Challenge: Choosing A Major
### Program Picker

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

<table>
<thead>
<tr>
<th>Program</th>
<th>Classes/Credits</th>
<th>Time to Complete</th>
<th>Financial Aid</th>
<th>Total Tuition</th>
<th>Outcomes</th>
<th>Average Salary</th>
<th>Hiring Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nursing A.S.</strong></td>
<td>20 classes / 60 credits</td>
<td>2 years</td>
<td>✓ Selected</td>
<td>$9,176 in state</td>
<td>High rate of transfer to 4-year colleges</td>
<td>$38,500 / $51,100 with BA degree</td>
<td>129 job posts</td>
</tr>
<tr>
<td><strong>Medical Office Assistant Certificate</strong></td>
<td>8 classes / 24 credits</td>
<td>1 year</td>
<td></td>
<td>$3,641 in state</td>
<td>Students seek employment or another stackable certificate</td>
<td>$29,129</td>
<td>137 job posts</td>
</tr>
<tr>
<td><strong>Radiologic Technology A.A.S</strong></td>
<td>20 classes / 55 credits</td>
<td>2 years</td>
<td>✓ Selected</td>
<td>$8,850 in state</td>
<td>Most students seek employment post-graduation</td>
<td>$37,819</td>
<td>459 job posts</td>
</tr>
<tr>
<td><strong>Health Studies A.S.</strong></td>
<td>20 classes / 62 credits</td>
<td>2.25 years</td>
<td>✓ Selected</td>
<td>$9,427 in state</td>
<td>High rate of transfer to 4-year colleges</td>
<td>$42,774 / $51,553 with BS degree</td>
<td>661 job posts</td>
</tr>
</tbody>
</table>
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>GPA</td>
<td>2.73</td>
<td>2.96</td>
</tr>
</tbody>
</table>

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
Meta Majors

Major Changes in 2013: 2,718
Major Changes in 2015: 1,853
2-Year Change: -32%
The Advisement Challenge: The Murky Middle

Student Performance Curve
(Illustrative)

Obvious Risk Cases
 Mostly Ds and Fs
 High Attrition Risk

Murky Middle
 Mixture of Bs and Cs
 Outcome Still Uncertain

Nearly impossible to pick out who might be at risk from a cursory transcript review

The “All-Stars”
 Straight As and Bs
 Probable Graduates

Source: Education Advisory Board
Challenge: Gateway Courses
Strengthening Math Pathways

**Pre-Calculus, College Algebra, Intro to Statistics**

- DWF Prior to Change: 43%
  DWF Today: 28% (35% drop)

- Number of Students enrolled in courses taught through the MILE, 2016-17: **8,500**
  +1,275 Students Passing
## Adaptive Learning at Scale

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Students</th>
<th>Sections</th>
<th>DFW</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1101</td>
<td>American Government</td>
<td>4694</td>
<td>55</td>
<td>16.3%</td>
</tr>
<tr>
<td>MATH 1070</td>
<td>Elementary Statistics</td>
<td>2701</td>
<td>76</td>
<td>25.2%</td>
</tr>
<tr>
<td>ECON 2105</td>
<td>Principle of Macroeconomics</td>
<td>2340</td>
<td>38</td>
<td>19.2%</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>2252</td>
<td>26</td>
<td>21.8%</td>
</tr>
<tr>
<td>POLS 2401</td>
<td>Global Issues</td>
<td>2250</td>
<td>35</td>
<td>18.9%</td>
</tr>
<tr>
<td>FILM 2700</td>
<td>History of the Motion Picture</td>
<td>2226</td>
<td>59</td>
<td>15.2%</td>
</tr>
<tr>
<td>ECON 2106</td>
<td>Principles of Microeconomics</td>
<td>2122</td>
<td>31</td>
<td>24.7%</td>
</tr>
<tr>
<td>MATH 1101</td>
<td>Introduction to Mathematical Modeling</td>
<td>2019</td>
<td>56</td>
<td>26.5%</td>
</tr>
<tr>
<td>MATH 1111</td>
<td>College Algebra</td>
<td>1540</td>
<td>45</td>
<td>20.2%</td>
</tr>
<tr>
<td>SOCI 1101</td>
<td>Introductory Sociology</td>
<td>1432</td>
<td>29</td>
<td>20.2%</td>
</tr>
<tr>
<td>MATH 1113</td>
<td>Pre-calculus</td>
<td>1289</td>
<td>34</td>
<td>27.5%</td>
</tr>
<tr>
<td>CHEM 1211</td>
<td>Principles of Chemistry I</td>
<td>1096</td>
<td>37</td>
<td>17.2%</td>
</tr>
<tr>
<td>BIOL 1103</td>
<td>Introductory Biology I</td>
<td>1051</td>
<td>48</td>
<td>24.8%</td>
</tr>
</tbody>
</table>
Eliminating Bottlenecks: Peer Tutors

Supplemental Instruction (SI)

<table>
<thead>
<tr>
<th>Course</th>
<th>BIOL</th>
<th>POLS</th>
<th>PHIL</th>
<th>CHEM</th>
<th>ACCT</th>
<th>PHYS</th>
<th>CRJU</th>
</tr>
</thead>
<tbody>
<tr>
<td>No SI</td>
<td>2.41</td>
<td>2.60</td>
<td>2.93</td>
<td>2.74</td>
<td>2.64</td>
<td>2.73</td>
<td>2.26</td>
</tr>
<tr>
<td>SI</td>
<td>2.82</td>
<td>3.24</td>
<td>2.93</td>
<td>2.55</td>
<td>2.15</td>
<td>2.06</td>
<td>1.89</td>
</tr>
</tbody>
</table>

Course GPA
- No SI: 2.41
- SI: 2.91

One-Year Retention
- No SI: 83.5%
- SI: 91.2%

Students: 9,700
Challenge: Staying On Track
Grants Since 2012: 8,000+

Average Grant: $900

Seniors Graduated: 70%

Grant Recipients Graduated 2015-16: 1,257
2012 Graduation Rates of Pre-Nursing Majors

Graduation Rates by First-Year GPA

<table>
<thead>
<tr>
<th>GPA</th>
<th>0.0-2.0</th>
<th>2.0-2.2</th>
<th>2.2-2.4</th>
<th>2.4-2.6</th>
<th>2.6-2.8</th>
<th>2.8-3.0</th>
<th>3.0-3.2</th>
<th>3.2-3.4</th>
<th>3.4-3.6</th>
<th>3.6-3.8</th>
<th>3.8-4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>56</td>
<td>25</td>
<td>25</td>
<td>29</td>
<td>25</td>
<td>45</td>
<td>28</td>
<td>26</td>
<td>13</td>
<td>15</td>
<td>11</td>
</tr>
</tbody>
</table>

- Graduated in program
- Graduated in any program
- University Grad. Rate
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
### Academic Program Maps: B.S. in Chemistry

<table>
<thead>
<tr>
<th>SEMESTER 1</th>
<th>SEMESTER 2</th>
</tr>
</thead>
<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></td>
<td>• Maintain a cumulative GPA of 2.25 or Better</td>
</tr>
</tbody>
</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>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEMESTER 5</th>
<th>SEMESTER 6</th>
</tr>
</thead>
<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>
</tr>
</tbody>
</table>

<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>
Alerts Based on Historical RPG Data

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%
Proactive Interventions

• Registration holds
• Drops & Withdrawals
• Major Changes
• Faculty alerts
• Underperformance in Gateway courses
Linking Academics to Career Pathways
52,150
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%
Rapidly Improving Progression Rates

Freshmen with 30-hours of Passing Credit After 12 Months

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-13</td>
<td>47%</td>
</tr>
<tr>
<td>2013-14</td>
<td>53%</td>
</tr>
<tr>
<td>2014-15</td>
<td>56%</td>
</tr>
<tr>
<td>2015-16</td>
<td>63%</td>
</tr>
</tbody>
</table>
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

Students
$15 million

Savings to the Class of 2016 in tuition and fees when compared to the Class of 2013
Con founding Expectations

STEM Degrees ConferredSince 2011 (enrollment change)

Black +69% (12%)
Black Male +111% (15%)
Hispanic +226% (22%)
Impacts
Growing Recognition
The Calculus of Student Success: ROI

1-point increase in retention = 325 students

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

ROI for each 1-point increase = $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>2016 - 17</th>
<th>6-Year Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>1,001</td>
<td>2,040</td>
<td>+1,039</td>
<td>+103%</td>
</tr>
<tr>
<td>Pell</td>
<td>1,298</td>
<td>2,957</td>
<td>+1,659</td>
<td>+128%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>196</td>
<td>509</td>
<td>+313</td>
<td>+160%</td>
</tr>
</tbody>
</table>
Graduation Rates by Race & Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>2003</th>
<th>Today</th>
<th>Today, with Clearinghouse Data Added</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>31.6%</td>
<td>50.4%</td>
<td>76.4%</td>
</tr>
<tr>
<td>African American</td>
<td>25.6%</td>
<td>58.4%</td>
<td>77.5%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>22.0%</td>
<td>57.6%</td>
<td>76.7%</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>
</tr>
</tbody>
</table>

Source: Diverse Issues in Higher Education