Using Data and Analytics to Succeed with Students from At-Risk Populations

Timothy M. Renick, Ph.D.
Vice President for Enrollment Management & Student Success and Vice Provost
The Benefits of a College Degree

Average Annual Income

High School Grads: $28,000
College Grads: $45,000

Unemployment Rate

High School Grads: 12.2%
College Grads: 3.8%

Lifetime Income (projected)

High School Grads: $1.3 million
College Grads: $2.3 million

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)

• 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

<table>
<thead>
<tr>
<th>Fall 2008</th>
<th>Fall 2009</th>
<th>Fall 2010</th>
<th>Fall 2011</th>
<th>Fall 2012</th>
<th>Fall 2013</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>53%</td>
<td>53%</td>
<td>54%</td>
<td>56%</td>
<td>59%</td>
<td>60%</td>
<td>63%</td>
<td>65%</td>
</tr>
</tbody>
</table>
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%
SAT SCORES

-28 points
Appropriations Cuts

-$40 million
Are We the Problem?
Challenge:

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

Source: EAB
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.

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

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

- **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!

- **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%
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
Overwhelming Choices
# 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>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>
<th>Would you consider...</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 - $61,100 with BA degree</td>
<td>129 job posts</td>
<td><strong>Medical Office Assistant Certificate</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Learn More</td>
<td>$3,641 in state</td>
<td>Explore</td>
<td>8 classes / 24 credits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 year</td>
</tr>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>2 years</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.25 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Health Studies A.S.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Learn More</td>
<td>$9,427 in state</td>
<td>681 job posts</td>
<td><strong>Radiologic Technology A.A.S</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20 classes / 62 credits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20 classes / 55 credits</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>1 year</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 years</td>
</tr>
</tbody>
</table>

- **Find more options**
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>
</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%
Challenge:
Staying On Track
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
Eliminating Bottlenecks: Peer Tutors

Supplemental Instruction (SI)

<table>
<thead>
<tr>
<th>Course</th>
<th>No SI</th>
<th>SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL</td>
<td>2.41</td>
<td>2.82</td>
</tr>
<tr>
<td>POLS</td>
<td>2.68</td>
<td>3.24</td>
</tr>
<tr>
<td>PHIL</td>
<td>2.55</td>
<td>2.93</td>
</tr>
<tr>
<td>CHEM</td>
<td>2.15</td>
<td>2.74</td>
</tr>
<tr>
<td>ACCT</td>
<td>2.06</td>
<td>2.64</td>
</tr>
<tr>
<td>PHYS</td>
<td>1.89</td>
<td>2.73</td>
</tr>
<tr>
<td>CRJU</td>
<td>2.26</td>
<td></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
Panther Retention Grants

Grants Since 2012: 8,000+

AVERAGE GRANT $900

Seniors Graduated: 70%

Grant Recipients Graduated 2015-16: 1,257
Advisement: GPS Advising

Predictive Analytics Project with EAB

10 YEARS OF DATA
2.5 MILLION GRADES
144,000 STUDENT RECORDS
800+ ANALYTICS-BASED ALERTS
30,000 STUDENTS TRACKED DAILY
Alerts Based on Historical RPG Data

Graduation Rate in Major by Introductory Course Grade

**Introduction to Chemistry**
Natural Science majors

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>70.0%</td>
</tr>
<tr>
<td>B</td>
<td>66.7%</td>
</tr>
<tr>
<td>C</td>
<td>39.5%</td>
</tr>
<tr>
<td>D/F</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

**Comparative Politics**
Political Science majors

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>81.8%</td>
</tr>
<tr>
<td>B</td>
<td>73.9%</td>
</tr>
<tr>
<td>C</td>
<td>25.0%</td>
</tr>
<tr>
<td>D/F</td>
<td>6.2%</td>
</tr>
</tbody>
</table>

**Music Theory I**
Music majors

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>66.7%</td>
</tr>
<tr>
<td>B</td>
<td>55.5%</td>
</tr>
<tr>
<td>C</td>
<td>12.5%</td>
</tr>
<tr>
<td>D/F</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
### Academic Program Maps: B.S. in Chemistry

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

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

<table>
<thead>
<tr>
<th>SEMESTER 5</th>
<th>SEMESTER 6</th>
</tr>
</thead>
</table>
| - Complete CHEM 4000 with a C or Better  
- Complete CHEM 4110 with a C or Better | - Complete CHEM 4010 with a C or Better  
- Complete CHEM 4120 with a C or Better |

<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>
Linking Academics to Career Pathways
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
$15 million
Savings to the Class of 2016 in tuition and fees when compared to the Class of 2013
Confounding Expectations

STEM Degrees Conferred Since 2011 (enrollment change)

- Black: +69% (12%)
- Black Male: +111% (15%)
- Hispanic: +226% (22%)
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
Impacts
Growing Recognition
Georgia State Degree Conferrals

2008-09: 5,857  
2014-15: 7,601

INCREASE: 1,744 (+30%)
### Bachelor’s Degrees Awarded

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>1,001</td>
<td>1,322</td>
<td>1,440</td>
<td>1,550</td>
<td>1,692</td>
<td>1,825</td>
<td><strong>82%</strong></td>
</tr>
<tr>
<td>Pell</td>
<td>1,298</td>
<td>1,648</td>
<td>1,835</td>
<td>2,007</td>
<td>2,052</td>
<td>2,501</td>
<td><strong>93%</strong></td>
</tr>
<tr>
<td>Hispanic</td>
<td>196</td>
<td>300</td>
<td>328</td>
<td>372</td>
<td>414</td>
<td>435</td>
<td><strong>123%</strong></td>
</tr>
</tbody>
</table>
Graduation Rates by Race & Ethnicity (Clearinghouse Data Added)

White:
- Ten Years Ago: 50.4%
- Today: 31.6%
- Today, with Clearinghouse Data Added: 76.4%

African American:
- Ten Years Ago: 25.6%
- Today: 58.4%
- Today, with Clearinghouse Data Added: 77.5%

Hispanic:
- Ten Years Ago: 22%
- Today: 57.6%
- Today, with Clearinghouse Data Added: 76.7%
#1 in Degrees Conferred to African Americans

**Top 100 Degree Producers: Non-Profit Universities**

2014 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>1645</td>
<td>35%</td>
<td>8%</td>
</tr>
<tr>
<td>2 FAMU</td>
<td>FL</td>
<td>1475</td>
<td>95%</td>
<td>6%</td>
</tr>
<tr>
<td>3 North Carolina A &amp; T State University</td>
<td>NC</td>
<td>1214</td>
<td>87%</td>
<td>7%</td>
</tr>
<tr>
<td>4 University of Central Florida</td>
<td>FL</td>
<td>1195</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>5 University of Maryland - University College</td>
<td>MD</td>
<td>1073</td>
<td>26%</td>
<td>5%</td>
</tr>
<tr>
<td>6 University of Memphis</td>
<td>TN</td>
<td>1016</td>
<td>34%</td>
<td>9%</td>
</tr>
<tr>
<td>7 Jackson State University</td>
<td>MS</td>
<td>987</td>
<td>90%</td>
<td>11%</td>
</tr>
<tr>
<td>8 Howard University</td>
<td>D.C.</td>
<td>966</td>
<td>94%</td>
<td>-15%</td>
</tr>
<tr>
<td>9 The University of Texas at Arlington</td>
<td>TX</td>
<td>951</td>
<td>14%</td>
<td>10%</td>
</tr>
<tr>
<td>10 Florida Atlantic University</td>
<td>FL</td>
<td>905</td>
<td>18%</td>
<td>-2%</td>
</tr>
</tbody>
</table>

Source: Diverse Issues in Higher Education