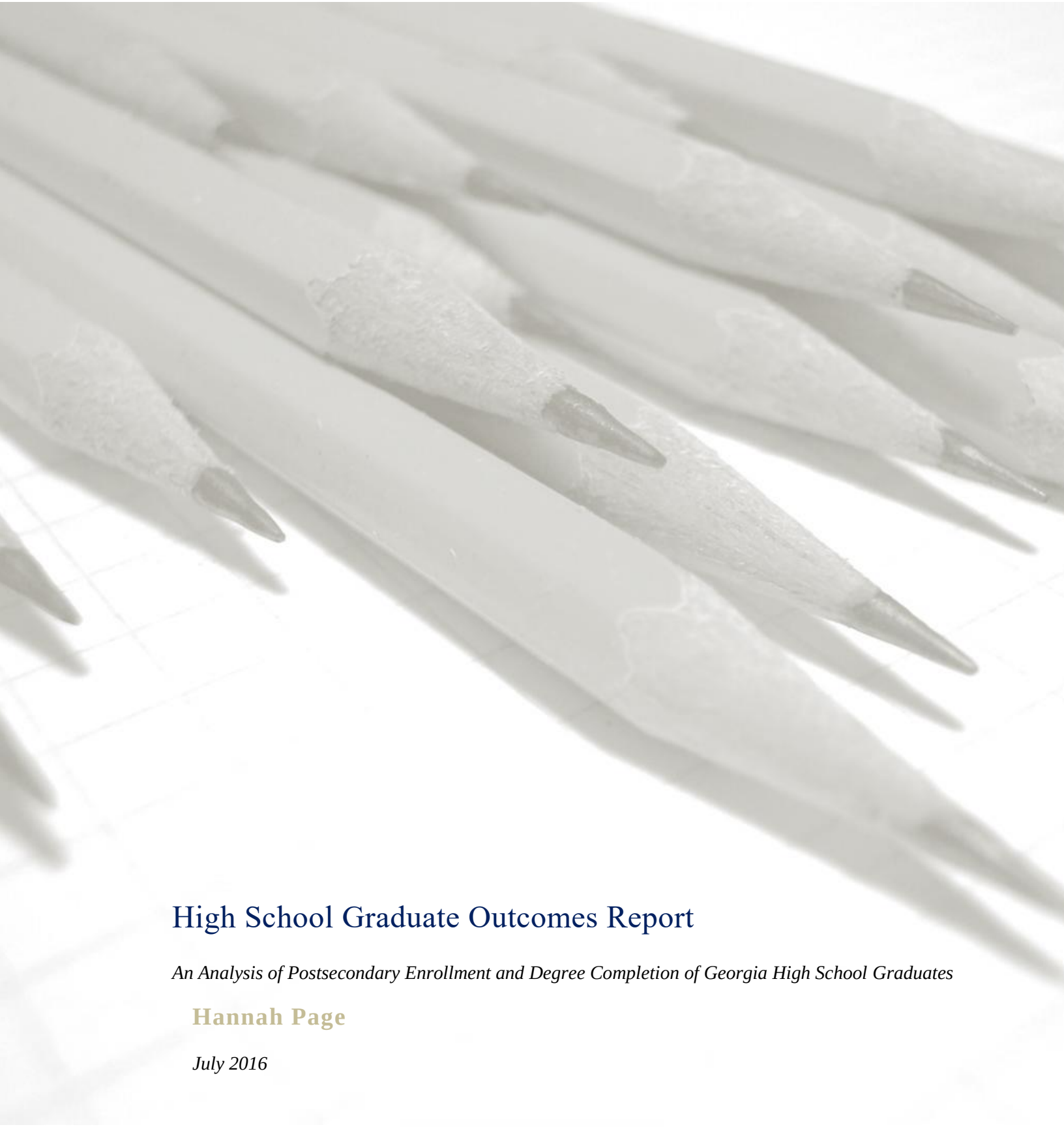

High School Graduate Outcomes Report

An Analysis of Postsecondary Enrollment and Degree Completion of Georgia High School Graduates

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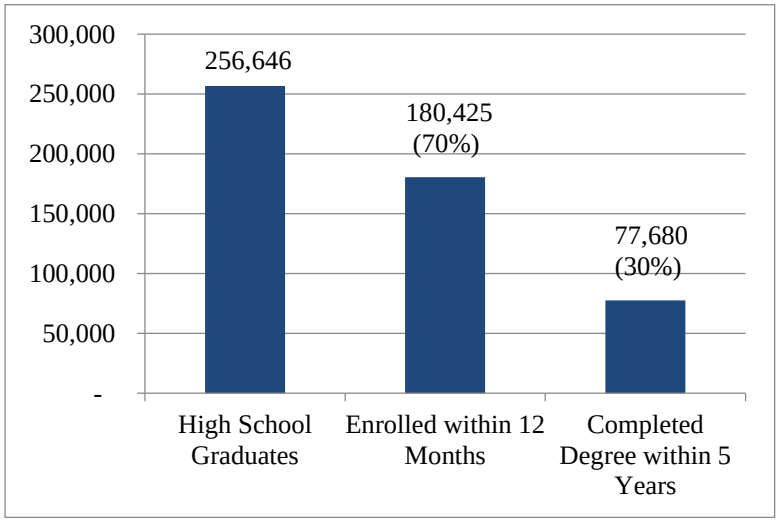
THE GOVERNOR'S OFFICE OF STUDENT ACHIEVEMENT

Executive Summary

This report serves as a follow-up to the "Georgia Students' High School to College Transition" report published by GOSA in 2009, which presents college enrollment by school system and investigates the relationship between college enrollment as well as student-level factors. This report goes beyond the previous report by adding a layer of analysis using newly available data from Georgia's Academic and Workforce Analysis and Research Data System (GA•AWARDS) and investigates relationships at the high school level. The report also acts as a companion tool to the High School Graduate Outcomes Dashboard, launched in January 2016, which allows users to drill down into the data from high school graduating classes between 2007 and 2014 and investigate where students enrolled in college, as well as the overall outcome of their enrollment.[i]

This analysis follows the high school graduating classes of 2008, 2009, and 2010 to analyze patterns in college enrollment and degree completion. Using data from these three graduating classes allows for an analysis of degree completion since at least five years have passed since high school graduation.[ii] Additionally, the rates of college enrollment and degree completion are examined by high school to identify differences between high schools. Figure 1 presents the total number of high school graduates, the total that enrolled in college within 12 months, and the total who completed a degree within 5 years.

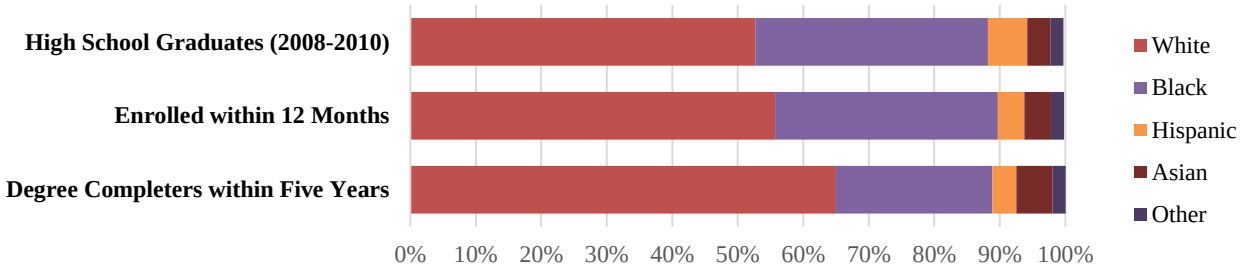
Figure 1: Outcomes for High School Graduates (2008-2010)



[i] In this report, "college" refers to colleges, universities, and technical colleges.
[ii] In this report, "degree" refers to certificates, associate's, bachelor's, master's, doctorates, and professional degrees.

The figure below presents the race/ethnicity percentages among of high school graduates, the number who enrolled in college within 12 months, and the number who completed a degree within 5 years.[iii] Students who enrolled in college and those who earned degrees within this cohort are proportionally more likely to be white and Asian and less likely to be Hispanic and black when compared to the original high school graduate cohort. It is important to note that the outcomes presented in this paper should not be interpreted as cause-effect because additional factors outside of the scope of this analysis may play a role in the relationship.

Figure 1: Demographics of Graduates, Enrollees and Five-Year Degree Completers



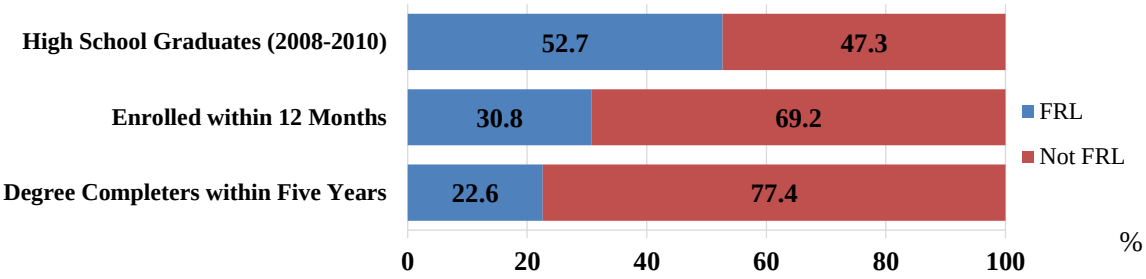
Selected findings from the analysis of high school graduates between 2008 and 2010 include:

- Enrollment in College within 12 Months
  - 70.3% of high school graduates enrolled in college within 12 months.
  - Of those high school graduates enrolling, 86.1% of students elected in-state colleges.
  - Of the students enrolling in colleges outside of Georgia, 57.1% enrolled in the neighboring states of Alabama, South Carolina, Tennessee, Florida, and North Carolina.
  - High schools with higher participation rates on the SAT/ACT and AP tended to have higher enrollment rates, as do high schools with higher average three-year high school graduation rate (2008-2010).
  - High schools with high eligibility rates for free or reduced-price lunch (FRL) tended to have lower college enrollment rates.
- Degree Completion
  - Only 30.3% of the students in this study completed a certificate or degree within five years.
  - Compared to all high school graduates, Hispanic and black students were proportionally underrepresented among degree completers, while white and Asian students were proportionally overrepresented.

[iii] Degree completers waiting more than twelve months after high school graduation to enroll in college are included in the enrollment group in Figure 1.

- 52.7% of high school graduates were eligible for FRL, but only 22.6% of degree completers five years later were FRL-eligible.

Figure 3: Graduates, Enrollees and Five-Year Degree Completers by FRL Status



- 18.2% of students who require remediation in math and English at Georgia public colleges completed a degree within five years, compared to 45.0% of students who did not require remediation.
- High schools with higher FRL-eligibility rates tended to have lower degree completion rates.
- High schools with high AP exam participation rates and high school graduation rates tended to have higher degree completion rates.

Contents

EXECUTIVE SUMMARY ..... **I**

TABLE OF TABLES AND FIGURES ..... **V**

TABLE OF ABBREVIATIONS ..... **VI**

INTRODUCTION **7**

DATA AND METHODOLOGY **7**

HIGH SCHOOL GRADUATE COHORT DEMOGRAPHICS **8**

STATEWIDE COLLEGE ENROLLMENT **9**

PATTERNS AND OUTCOMES IN GEORGIA'S COLLEGE ENROLLMENT BY HIGH SCHOOL **11**

Geographic Patterns 12

College Enrollment and Other Characteristics 17

STATEWIDE DEGREE COMPLETION RATES **22**

PATTERNS IN HIGH SCHOOL RATES OF CERTIFICATE AND DEGREE COMPLETION **24**

Relationship with Other Characteristics 28

Comparison of Enrollment Rates and Degree Completion Rates 31

CONCLUSION **32**

APPENDICES **34**

Appendix A. High School Outcomes Calculation Guide 34

Appendix B: High School Code Changes 36

Appendix C: Degree Ranking 37

Table of Tables and Figures

Figure 1: Outcomes for High School Graduates (2008-2010) i
Figure 2: Demographics of Graduates, Enrollees and Five-Year Degree Completers ii
Figure 3: Graduates, Enrollees and Five-Year Degree Completers by FRL Status iii
Figure 4: Georgia's High School Graduates by High School Location (2008-2010) .....
Table 1: Demographics of High School Graduates Enrolling in Colleges within 12 Months 9
Figure 5: 2008-2010 High School Graduates Enrolling in College within 12 Months 10
Table 2: College Enrollment Rate Summary Statistics 11
Figure 6: Density Plot of College Enrollment Rates 11
Table 3: Top In-State and Out-of-State Institutions by Enrollment 12
Table 4: College Enrollment by Out-of-State and In-State 12
Figure 7: In-State Enrollment by College Type and Size 13
Figure 8: Out-of-State Enrollment 14
Table 5: Summary Statistics for District Enrollment Rates 15
Figure 9: Map of District Enrollment Rates 16
Table 6: Summary Statistics of Percentage of Graduates Eligible for FRL by High School 17
Figure 10: College Enrollment Rate by Free and Reduced-Price Lunch Population 18
Table 7: ACT/SAT Participation Rates by High School 19
Figure 11: High School College Enrollment by ACT/SAT Participation 19
Table 8: AP Exam Participation Rates by High School 20
Figure 12: College Enrollment by AP Exam Participation 20
Table 9: High School Graduation Rate Summary Statistics (2008-2010) 21
Figure 13: College Enrollment Rates and Average High School Graduation Rates 21
Table 10: Demographics of High School Graduates and Five Year Degree Completers 22
Figure 14: Highest Degrees by Type Earned within Five Years 23
Figure 15: Degree Completion by Learning Support 23
Table 11: Degree Completion by High School Summary Statistics 24
Figure 16: Density Plot of High School Degree Completion Rates 24
Table 12: Summary Statistics for District Enrollment Percentages 25
Figure 17: Map of Degree Completion Rates by District 26
Figure 18: Five-Year Degree Completers by State 27
Figure 19: Degree Completion Rates by Free and Reduced-Price Lunch 28
Figure 20: Degree Completion Rates by AP Exam Participation 29
Figure 21: Average High School Graduation Rates by Degree Completion 30
Figure 22: College Enrollment by Degree Completion Rates 31
Figure 23: Demographics of Graduates, Enrollees and Five-Year Degree Completers 32
Figure 24: Graduates, Enrollees and Five-Year Degree Completers by FRL Status 33
Table 13: Degree/Certificate Ranking 35
Table 14: High School Code Changes 36

Table of Abbreviations

ACT	American College Test	GICA	Georgia Independent College Association
AP	Advanced Placement	GOSA	Governor's Office of Student Achievement
APS	Atlanta Public Schools	LEP	Limited English Proficiency
FRL	Free and Reduced-Price Lunch	NSC	National Student Clearinghouse
GA•AWARDS	Georgia's Academic and Workforce Analysis and Research Data System	TCSG	Technical College System of Georgia
GaDOE	Georgia Department of Education	USG	University System of Georgia

Introduction

Building on GOSA's 2009 Post-Secondary Enrollment report, this analysis explores the relationships between student and high school characteristics and college enrollment and degree completion.[1] It follows the high school graduate cohorts of 2008, 2009, and 2010 with the overall goal of exploring the following questions:

- Are certain groups of students who graduate more likely to enroll in college within 12 months or earn a certificate or degree within 5 years?
- What high school characteristics are associated with college enrollment and degree completion?

This report also serves as a companion to GOSA's High School Graduate Outcomes Dashboard and employs the same business rules as used in the dashboard.[2]

This report investigates how individual student characteristics, such as gender, race/ethnicity, and disability status, are related to college enrollment and degree completion. It also investigates how high school characteristics, such as the percentage of students taking Advanced Placement (AP) exams and the average graduation rate, are related to college enrollment and degree completion. Finally, geographic patterns are analyzed at the district, state, and national level. It is important to note that the outcomes presented in this paper should not be interpreted as cause-effect because additional factors outside of the scope of this analysis may play a role in the relationship.

The report is divided into five parts. The first section describes the data used in this report, followed by a second section that has a discussion of composition of the high school graduate cohort. The third section presents information on high school graduates enrolling in college within twelve months, and the fourth focuses on those students who earned degree within five years of high school graduation. The report concludes with a summary of findings and avenues for further research.

Data and Methodology

This report utilizes data from Georgia's longitudinal data system, GA•AWARDS, which applies a matching algorithm that links records from participating agencies across multiple years. Using these matched data, this report analyzes the college enrollment and degree attainment rates for students who graduated from high school during the 2007-2008, 2008-2009, and 2009-2010 school years.[3] Using data from these three cohorts allows for an analysis of degree completion since at least five years have passed since high school graduation.

[1] In this report, "college" refers to colleges, universities, and technical colleges. "Degree" refers to certificates, associate's, bachelor's, master's, doctorates, and professional degrees.
[2] For more information on the calculations used in the Dashboard, click here.
[3] Detailed information about the treatment of duplicate enrollments is located in the calculation guide in Appendix A. During the three-year period, at least nine high schools within districts changed school codes while retaining the same school name. Please refer to Appendix B for an explanation and table of all high schools impacted by the school code changes.

This report matches all of Georgia's public high school graduates in this cohort with college enrollment and degree attainment records using a unique identifier called the GA•AWARDS ID. The data also include demographic information, including gender, race/ethnicity, disability status, limited English proficiency (LEP), and eligibility for free or reduced-price lunch (FRL).[4] This report presents subgroup information as descriptive information only.

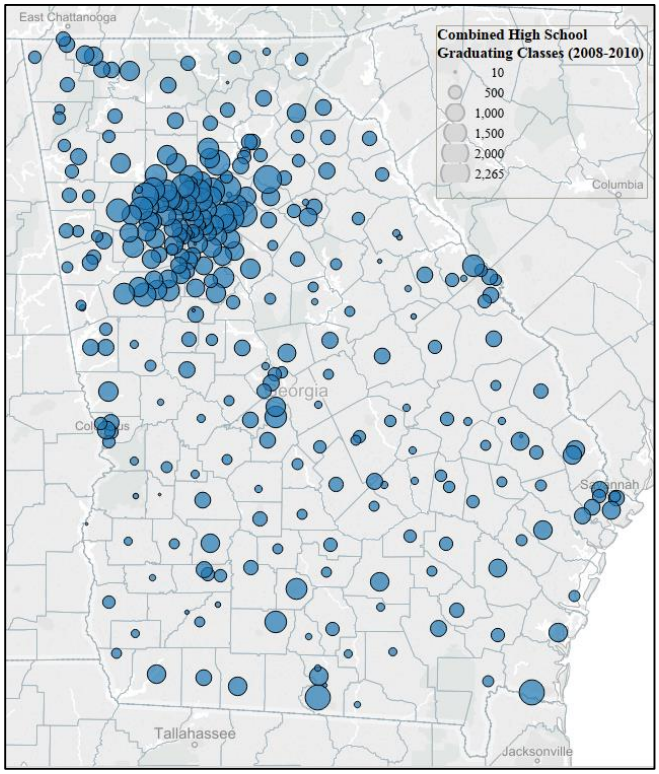
High School Graduate Cohort Demographics

Over a quarter of a million students make up the aggregated high school graduating classes during the three years. These high school graduates represent all of Georgia's city and county districts, as well as state charter schools active during these years.[5] These students graduated from 414 high schools across the state of Georgia, ranging from combined class sizes of 10 in DeKalb County's Destiny Academy of Excellence and Quitman County High School to 2,265 in Gwinnett County's Brookwood High School.[6]

When the three years of high school graduating classes are combined, female graduates outnumbered male graduates by more than five percentage points (52.5% compared to 47.5%). More than a third (36.6%) of the graduates were eligible for free and reduced-priced lunches. A third of the high school graduates were black, and more than half are white.

Figure 3 shows a map of the graduates by high school and size of the combined graduating classes. The map shows a clustering of high schools in Atlanta, Augusta, Columbus, Macon, and Savannah. Although high schools are clustered around the metro Atlanta area, the majority (56.0%) of high school graduates came from high schools located outside of the metro Atlanta area.[7]

Figure 4: Georgia's High School Graduates by High School Location (2008-2010)



[4] For all of these groupings, the data represent the student's graduating year.
[5] Eleventh and twelfth graders from Clay County attend high school in Randolph County.
[6] High school graduating classes with fewer than 10 total students were excluded in this analysis.
[7] The metro area is defined by the Atlanta Regional Commission as the ten-county metropolitan area (http://www.atlantaregional.com/about-us/the-region). In addition to these districts, the following metro area city school systems are included: Atlanta Public Schools (APS), Buford City, Decatur City, and Marietta City Schools.

Statewide College Enrollment

Using college enrollment data from GA•AWARDS, GOSA determined whether students enrolled in colleges within the Technical College System of Georgia (TCSG) or the University System of Georgia (USG), private in-state schools, or out-of-state schools within twelve months of high school graduation.[8] The table below presents the demographics of these enrolling students. Compared to the high school graduates, students who are female, Asian, white, and live in the metro-Atlanta area were proportionally more likely to enroll in college within 12 months, while black students, Hispanic students, and students who qualified for FRL and LEP status were proportionally less likely to enroll. It should be noted that these data are descriptive in nature and are used to summarize the sample of students.

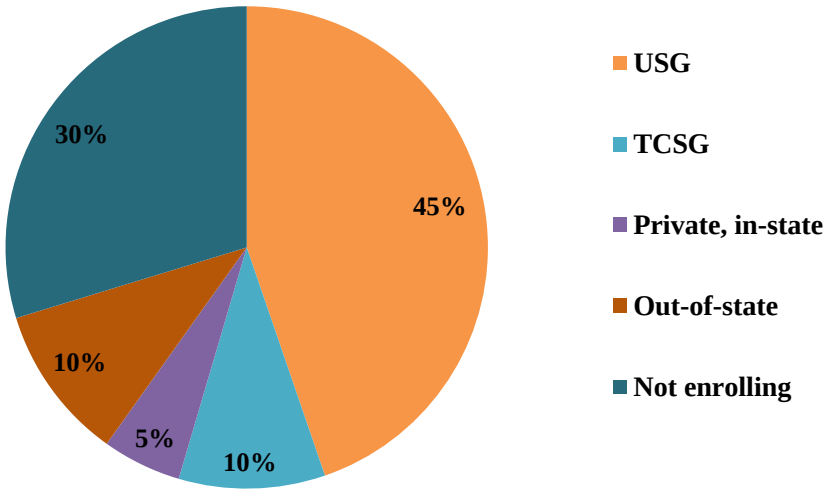
Table 1: Demographics of High School Graduates Enrolling in Colleges within 12 Months

Demographic Indicator	High School Graduating Classes (n=256,646)	Enrollees in College (n= 180,425)
Female	52.5%	55.5%
Male	47.5%	45.5%
Asian	3.5%	4.0%
Black	35.5%	34.0%
Hispanic	6.0%	4.1%
Other	2.3%	2.2%
White	52.7%	55.7%
Free and Reduced-Price Lunch	36.6%	30.8%
Limited English Proficiency	1.4%	0.7%
Students with Disabilities	5.1%	3.8%
Metro-Atlanta	44.0%	45.6%

[8] Please refer to the calculation guide for information on how GOSA treated students with multiple enrollments during the year following high school graduation.

The figure below presents the percentage of high school graduates enrolled by type of college, along with those students who did not enroll in any college during this time period. The plurality (45%) enrolled in USG institutions, followed by 10 % each enrolling in out-of-state and TCSG institutions. Five percent of students enrolled in private, in-state institutions. Of enrolled students, the majority (86%) enrolled in programs within the state of Georgia.

Figure 5: 2008-2010 High School Graduates Enrolling in College within 12 Months



Patterns and Outcomes in Georgia's College Enrollment by High School

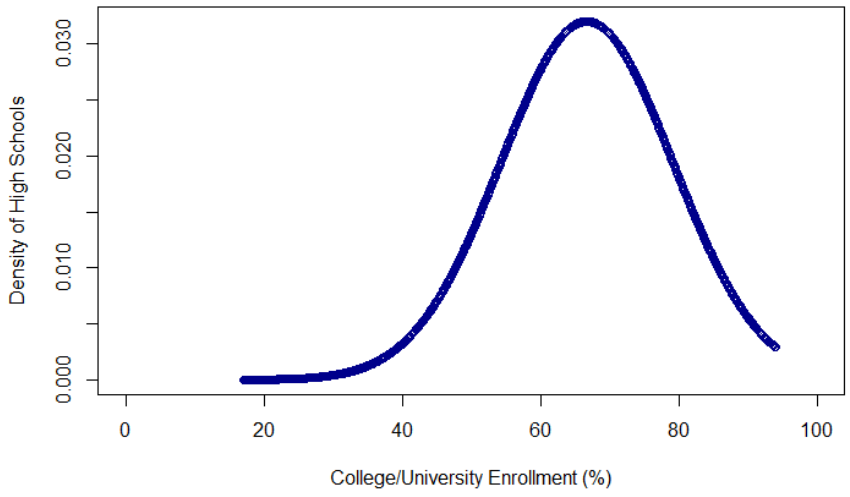
The following section presents an analysis of the college enrollment rate calculated at the high school level, followed by an analysis of geographic patterns and student characteristics.

To calculate the enrollment rate by high school, students from each graduating high school class enrolling in college within 12 months were divided by the total number of high school graduates.[9] The table below presents the summary statistics for the college enrollment rate at the high school level. Within an average high school, 66.7% of high school graduates enrolled in a college within twelve months. This rate ranged from 17.1% at Jackson County's Regional Evening Alternative School to 94.0% at Richmond County's Davidson Magnet School. The middle 50% of schools had enrollment rates between 60.6% and 74.6%, as presented in in the figure below. Many of the high schools with lower enrollment rates tended to be from non-traditional schools, including alternative and evening schools, while higher performers were often more selective magnet schools.

Table 2: College Enrollment Rate Summary Statistics

	Min	Average	Max	Standard Deviation
Enrollment Rate	17.1	66.7	94.0	12.5

Figure 6: Density Plot of College Enrollment Rates



[9] Full calculation information for the enrollment percentage available in Appendix A.

Geographic Patterns

Utilizing the 12-month enrollment data, the table below presents the top enrolling in-state and out-of-state colleges and universities. All of the top ten in-state institutions were USG colleges and universities, and half were located within the metro Atlanta area. For the top enrolling out-of-state institutions, half were located in Alabama and the fifth highest enrolling institution, the University of Phoenix, offers online courses and may include students staying in Georgia.

Table 3: Top In-State and Out-of-State Institutions by Enrollment

Rank	In-State institutions	Out-of-State institutions
1	University of Georgia	Auburn University (AL)
2	Georgia Perimeter College	University of Alabama (AL)
3	Georgia Southern University	Jacksonville State University (AL)
4	Georgia State University	Alabama State University (AL)
5	Kennesaw State University	University Of Phoenix (AZ)
6	Valdosta State University	Tuskegee University (AL)
7	Gainesville State College	Florida A&M University (FL)
8	University of West Georgia	University Of South Carolina (SC)
9	Georgia Institute of Technology	Benedict College (SC)
10	Gordon State College	University Of Mississippi (MS)

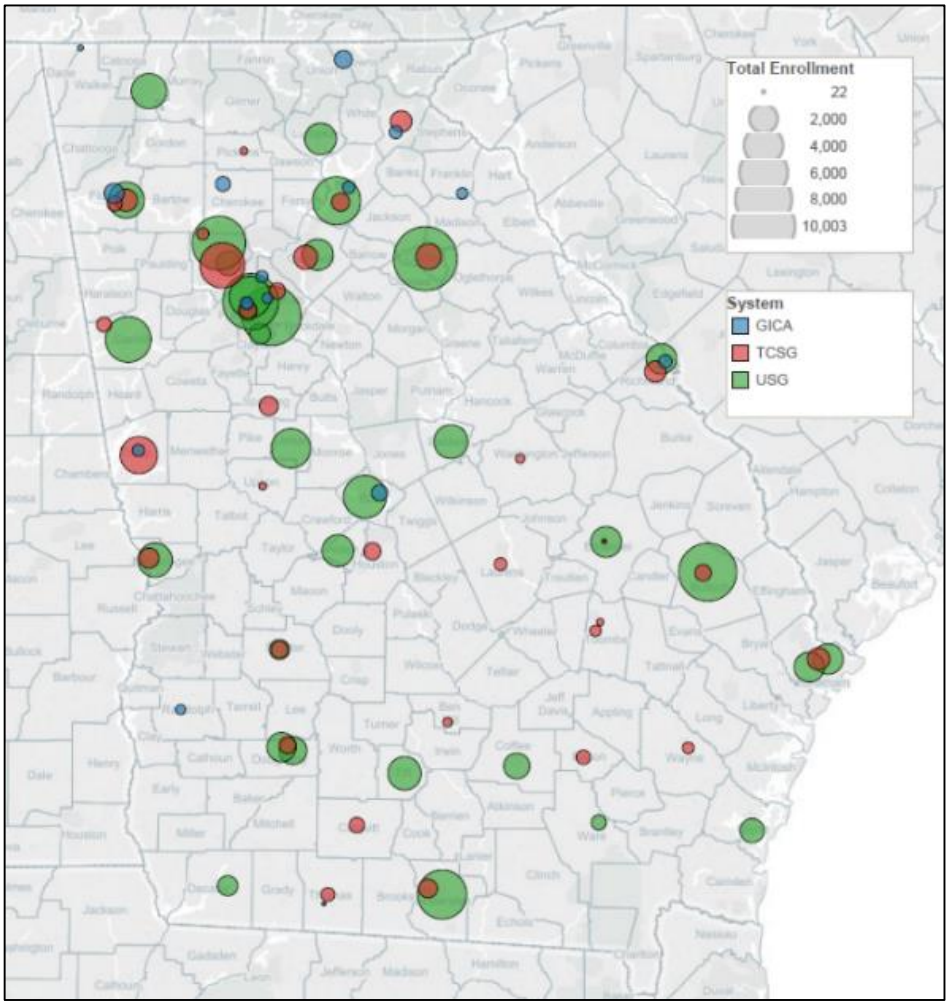
Students who elect to stay within the state differ from those attending an out-of-state institution. A greater percentage of students enrolling out-of-state were male, black, or from the metro-Atlanta area, while a smaller percentage of out-of-state enrollees were white or eligible for FRL in high school (see the table below).

Table 4: College Enrollment by Out-of-State and In-State

Demographic Indicator	In-State Enrollment (n=155,397)	Out-of-State Enrollment (n=25,028)
Female	56.2%	51.4%
Male	43.8%	48.6%
Asian	4.2%	2.9%
Black	32.5%	43.6%
Hispanic	4.3%	2.5%
Other	2.2%	2.3%
White	56.8%	48.7%
Free and Reduced-Price Lunch	31.1%	28.9%
Limited English Proficiency	0.8%	0.5%
Students with Disabilities	3.9%	3.0%
Metro-Atlanta	42.9%	62.5%

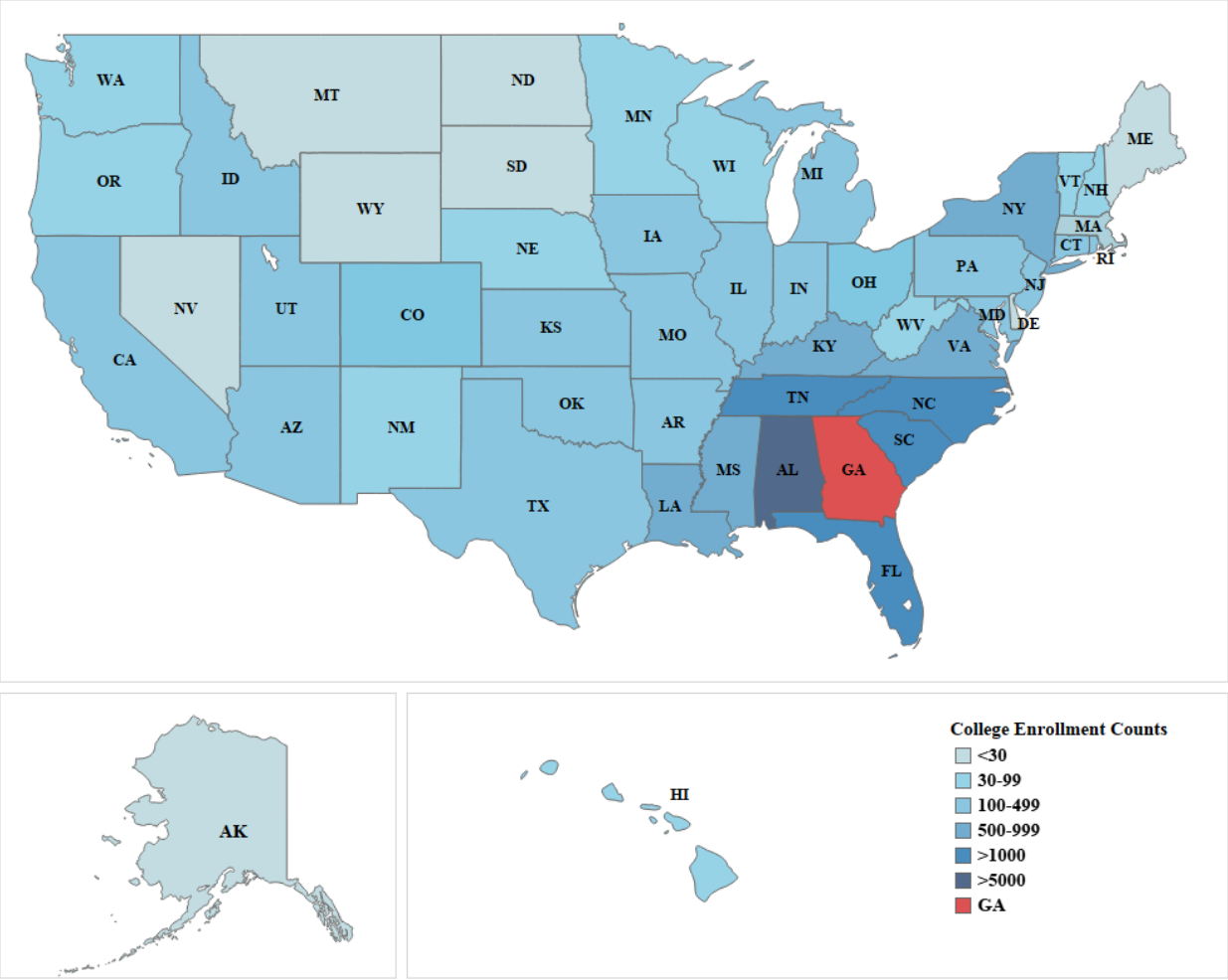
The map below displays in-state college enrollment by size and is colored by type of institution, with green indicating USG institutions, red indicating TCSG, and blue for private, in-state colleges. Enrollment remains clustered in Atlanta, Augusta, Macon, Valdosta, and Columbus.

Figure 7: In-State Enrollment by College Type and Size



For students who enrolled outside of Georgia, they chose between more than 1,500 colleges and universities in all remaining 49 states.[10] In addition to graduates being more likely to enroll in neighboring states, between 500-999 students also enrolled in colleges and universities in Arizona, Kentucky, Louisiana, Mississippi, New York, Virginia, and the District of Columbia.[11] Fewer than 30 students enrolled in colleges in Alaska, Delaware, Maine, Montana, Nevada, North Dakota, South Dakota, and Wyoming (see map below).

Figure 8: Out-of-State Enrollment



[10] Colleges/universities in Puerto Rico and the Virgin Islands enrolled fewer than 10 students during this time period and are excluded from the map. Colleges in the District of Columbia are also excluded from the map.

[11] The majority of students (69.1%) enrolling in Arizona are enrolled at the University of Phoenix.

District Geographic Patterns

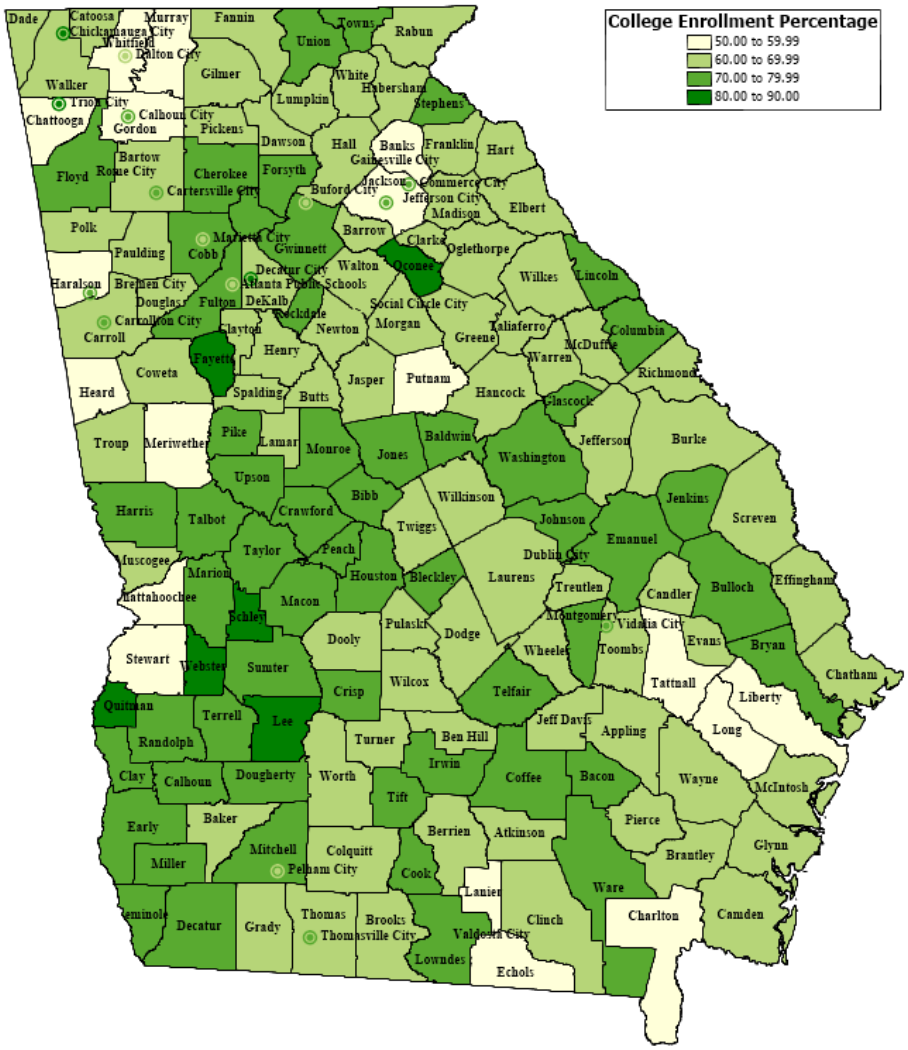
Eight districts had enrollments rates over 80%: Chickamauga City, Decatur City, Fayette County, Lee County, Oconee County, Schley County, Trion City, and Webster County. Six districts had college enrollment rates that were lower than 55%: Chattahoochee County, Gordon County, Haralson County, Heard County, Long County, and Stewart County. When college enrollment rates are compared by district enrollment, large districts with more than 5,000 graduates in the three years had a slightly higher average college enrollment rate (71.6%) than those districts with fewer than 100 graduates (70.0%).

Table 3: Summary Statistics for District Enrollment Rates

	Min	Average	Max	Standard Deviation
Enrollment Rate	50.0	68.4	85.6	7.0

The map below presents college enrollment rates by district, with those in darker green with higher enrollment than those in lighter green.[12] Districts in the western portions of middle and south Georgia and the north Metro Atlanta area had higher than average enrollment rates, while several districts in the northeastern and southeastern region of the state surrounding Long County had lower enrollment rates.

Figure 9: Map of District Enrollment Rates



[12] Equal sized intervals of percentage ranges determine the color bands. Two state charter schools (Mountain Education Center and CCAT) have graduates in the dataset. However, since these two schools serve students statewide, they are excluded from this district-level analysis. Note that 11th and 12th graders from Clay County attend high school and graduate from Randolph County. In this map, Clay County is assigned the same percentage as Randolph County.

College Enrollment and Other Characteristics

The following section compares the high school college enrollment rate to FRL status, SAT/ACT and AP exam participation, and high school graduation rates to determine how these characteristics are related to the rate of college enrollment at the high school level.

Free and Reduced-Price Lunch (FRL)

FRL indicators provide a useful proxy for an individual student or family's income status.[13] When comparing the percentage of the graduating class identified as eligible for FRL to the college enrollment rate, a negative relationship emerges. In other words, as the percentage of the FRL-eligible graduates at a high school decreased, the college enrollment rate increased (see figure below).[14]

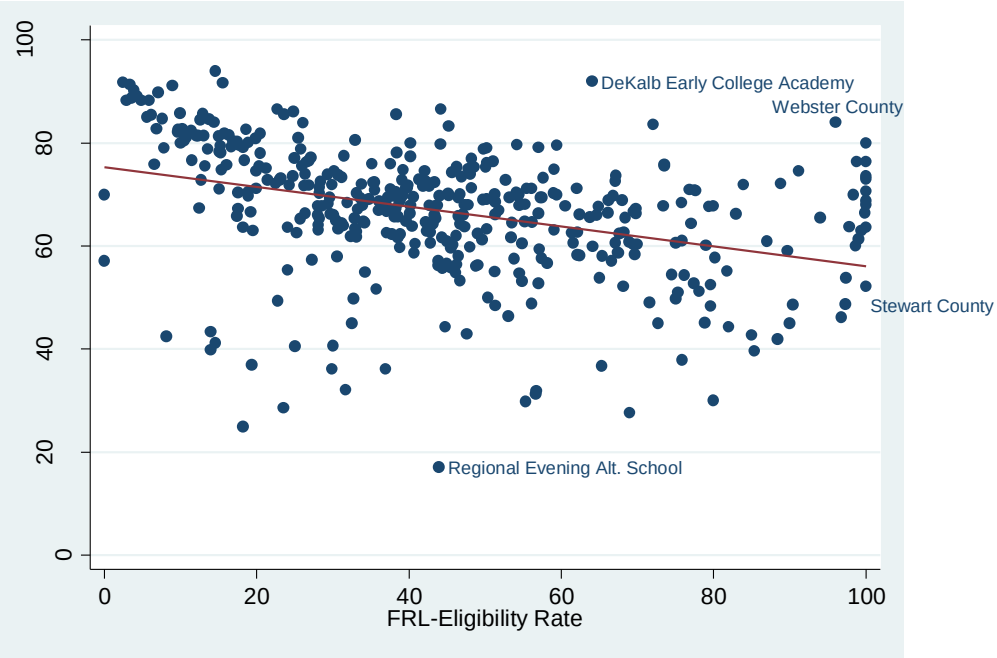
Table 6: Summary Statistics of Percentage of Graduates Eligible for FRL by High School

	Min	Average	Max	Standard Deviation
Graduates Eligible for FRL (%)	0	44.6	100	24.0

[13] FRL status is reported as of the student's graduating year. Because these graduation years occurred before the expansion of the National School Lunch Program's Community Eligibility Provision (CEP), the numbers presented here are not affected by the issues discussed in this e-bulletin.

[14] Fayette County's Evening School and Charter Conservatory (CCAT) do not report any graduates qualifying for FRL, while all graduates qualify for FRL in nine high schools: Atkinson County High School, Macon County High School, Quitman County High School, Screven County High School, Stewart County High School, Talbot County's Central Elementary High School, Taliaferro County School, Telfair County High School, and Terrell County High School.

Figure 10: College Enrollment Rate by Free and Reduced-Price Lunch Population



Dots above the red line indicate that the schools' enrollment rate was higher than predicted based on its FRL-eligibility rate. As seen in the figure above, DeKalb County's Early College Academy and Webster County High School are outliers, with a high percentage of graduates qualifying for FRL and a high college enrollment rate. Webster County High School, falling into the top right corner, has a higher enrollment rate (84%) than would be predicted by a population of 96% of graduates eligible for FRL, and the Early College Academy enrolls 92% of its students in college and more than half (64%) of its graduates is eligible for FRL. At the bottom of the plot, Jackson County's Regional Evening Alternative School enrolls 17% of students in college, and 44% of the graduates are eligible for FRL. Of high schools with FRL eligibility rates of 90% or more, college enrollment ranges from 45% (APS's South Atlanta Law and Social Justice School) to 84% (Webster County High School). The eight high schools with 100% FRL have higher college enrollment rates than is predicted, aside from Stewart County High School, which is located just below the trend line.

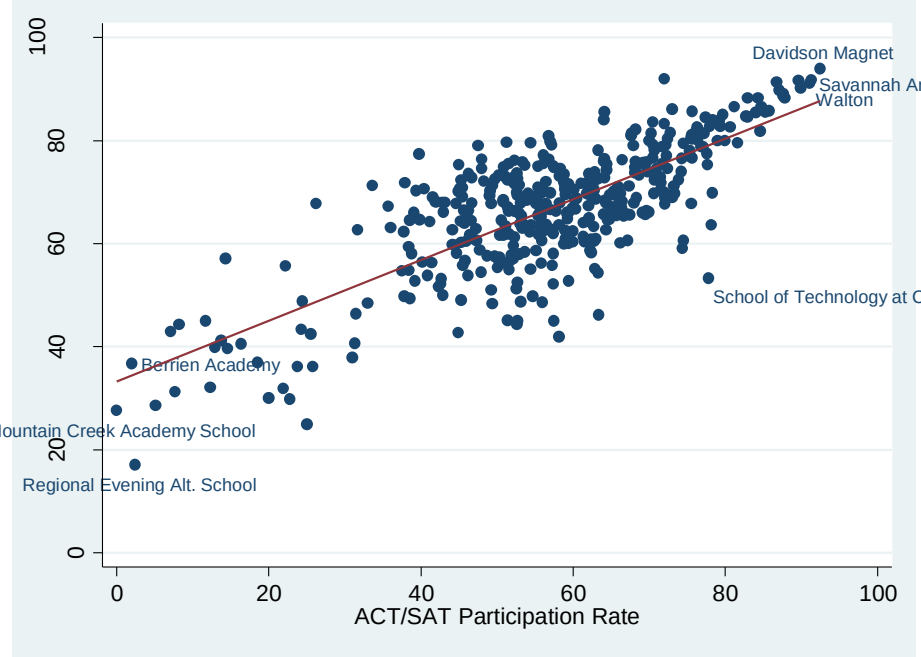
ACT and SAT Participation Rates

As the rate of high school graduates taking ACT and/or SAT increased, the college enrollment rate tended to increase as well (see figure below). The three schools with ACT/SAT participation rates above 90% also had high enrollment rates: Richmond County's Davidson Magnet School, Savannah Arts Academy, and Cobb County's Walton High School. The high schools with the lowest SAT/ACT participation rates (less than 3%) are alternative schools: Murray County's Mountain Creek Academy School, Berrien County's Academy Performance Learning Center, and Jackson County's Regional Evening Alternative School. The nature of the population and programming at alternative schools may contribute to lower rates of SAT and ACT taking. Notably, nearly 80 percent (77.8%) of students at Atlanta Public School's School of Technology at Carver took either the SAT or the ACT, yet only 53.3% of students enrolled in college within a year.

Table 4: ACT/SAT Participation Rates by High School

	Min	Average	Max	Standard Deviation
ACT/SAT Participation Rate	0.0	56.9	92.5	16.4

Figure 11: High School College Enrollment by ACT/SAT Participation



AP Exam Participation [15]

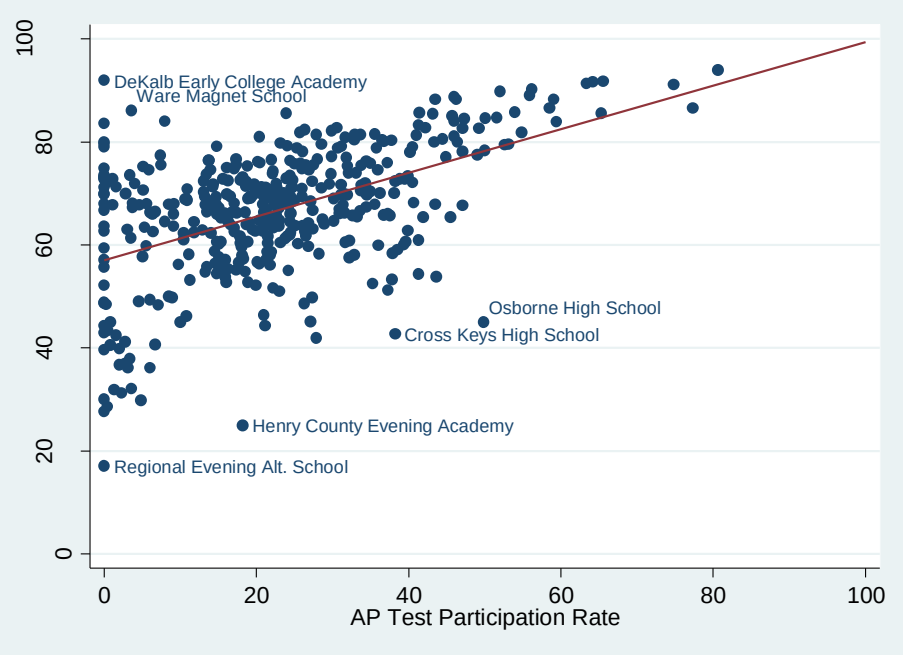
In the average high school, 22.8% of students took at least one AP exam. Richmond County's Davidson Magnet School has the highest exam participation rate at 80.6%, and 29 high schools have no students taking AP exams.

Table 5: AP Exam Participation Rates by High School

	Min	Average	Max	Standard Deviation
AP Exam Participation Rate	0.0	22.8	80.6	15.1

A study by College Board found that participation in AP courses positively correlates with student achievement, college readiness, and college completion.[16] The following plot shows that a similar relationship exists in Georgia between AP exam participation and rates of college enrollment; as AP exam participation increased, the college enrollment rate also increased. Ware Magnet School and DeKalb Early College Academy emerge as outliers, with low or no AP participation but high college enrollment rates. In contrast, Cobb County's Osborne High School and DeKalb County's Cross Keys High School had lower-than-expected college enrollment rates based on their AP exam participation rates.

Figure 12: College Enrollment by AP Exam Participation



[15] This study also examined the relationship between AP course enrollment and college enrollment. Only three percent of students who took an AP course did not take the associated exam. Similar patterns were found. As a result, the AP course information is not presented here.
[16] Are AP Students More Likely to Graduate from College on Time? College Board Research Report Mattern, Marini, Shaw, 2013.

Graduation Rate

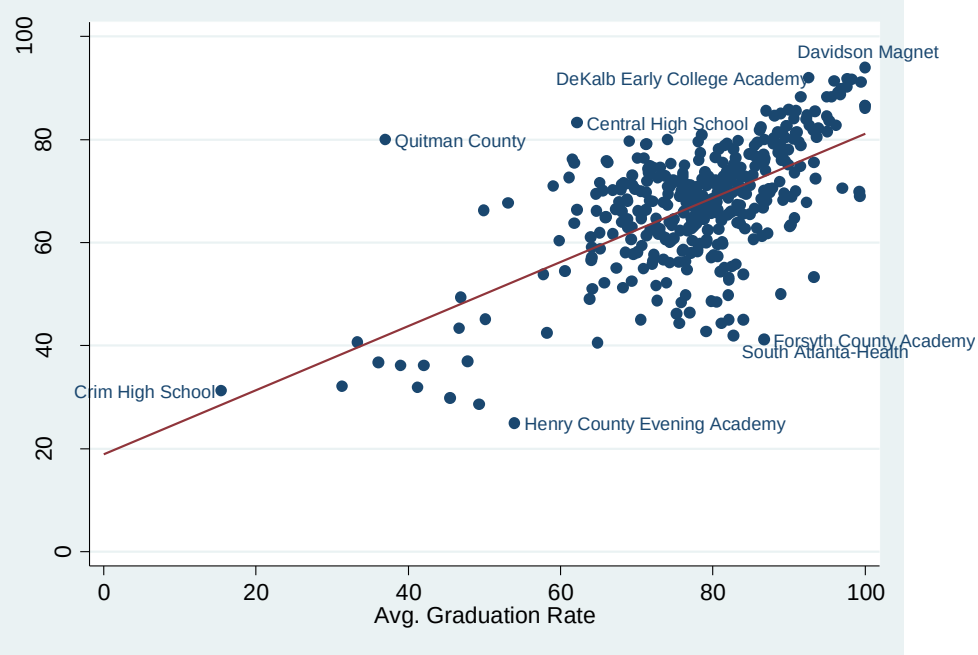
The average three-year graduation rate is calculated by averaging the graduation rate from all years in which the school was active. The table below presents summary statistics for the three-year average graduation rate. The graduation rate ranges from a 15.5% graduation rate at Atlanta Public School's (APS) Crim High School to 100% graduation rate at four schools: DeKalb County's High School of the Arts, Richmond County's Johnson Magnet, Richmond County's Davidson Magnet, and Ware County's Ware Magnet School.

Table 6: High School Graduation Rate Summary Statistics (2008-2010)

	Min	Average	Max	Standard Deviation
Graduation Rate	15.5	77.8	100	11.7

A positive relationship is observed between the enrollment rate and graduation rates, as seen in the figure below. In other words, as the average graduation rate increased, the college enrollment rate also increased. Several schools have higher or lower college enrollment rates than would be predicted based on high school graduation rates. For example, South Atlanta High School of Health and Medical Sciences in APS had an average graduation rate of 82.7%, but only 41.9% of the school's students enrolled in a college within 12 months. Conversely, high school graduates from Bibb County's Central High School, with an average graduation rate of 62.2%, had a higher-than-expected enrollment rate of 83.3%.

Figure 13: College Enrollment Rates and Average High School Graduation Rates



Statewide Degree Completion Rates

Using the degree data stored in GA•AWARDS, GOSA matched students in the high school graduate cohort to any degrees they earned within five years of high school graduation. For the purposes of this report, the degree counted is the highest credential earned within five years of graduation.[17] The degree completion rate is calculated by dividing the number of students receiving a degree within five years by the total number of high school graduates. The degree completer cohort may not be composed exclusively of the enrollment cohort discussed previously, as it could include students waiting to enroll in college for more than a year after high school graduation. Please refer to Appendix A for additional information.

Of high school graduates from 2008-2010, only one in three (30.3%) students completed a degree within five years of high school graduation. Compared to all high school graduates, female students, Asian students, white students, and students from the metro-Atlanta area were proportionally overrepresented among degree completers (see Table 10). In contrast, black students, Hispanic students, students who were eligible for FRL in high school, students who were identified as limited English proficient, and students with disabilities were proportionally underrepresented.

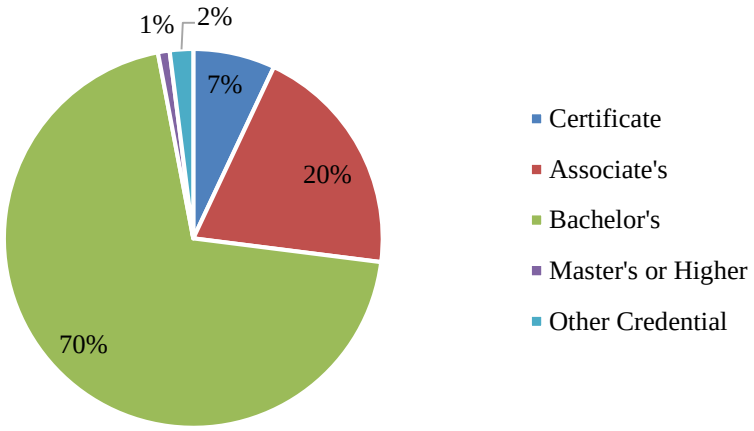
Table 7: Demographics of High School Graduates and Five Year Degree Completers

Demographic Indicator	High School Graduating Classes 2008-2010 (n=256,426)	Degree Completers within Five Years (n= 77,680)
Female	52.5%	61.2%
Male	47.5%	38.8%
Asian	3.5%	5.4%
Black	35.5%	24.8%
White	52.7%	64.0%
Hispanic	6.0%	3.9%
Other	2.3%	2.0%
Free and Reduced Price Lunch	52.7%	22.6%
Limited English Proficiency	1.4%	0.7%
Students with Disabilities	5.1%	2.5%
Metro Atlanta	44.0%	48.8%

[17] Please refer to Appendix C for an explanation of the mapping of specific degree types to degree categories.

The pie graph below summarizes the highest degrees earned by the cohort. Degree types range from certificates to graduate degrees. Bachelor's degrees represent the majority of degrees earned (70%) within five years of high school graduation, followed by Associate's degrees (20%).

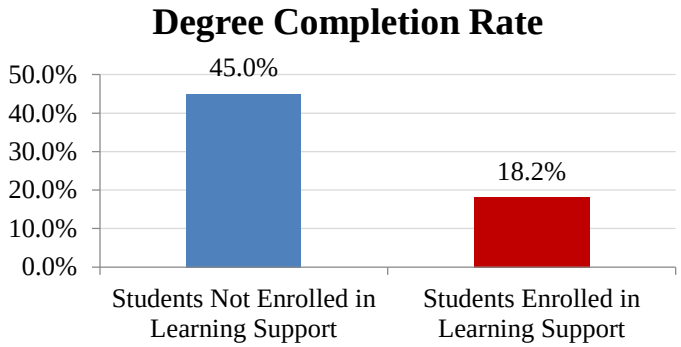
Figure 14: Highest Degrees by Type Earned within Five Years



Learning Support

National research finds that students taking remedial courses (also known as learning support) are less likely to earn degrees than those who do not require remediation both nationally and within Georgia.[18] Using learning support data from GA•AWARDS, GOSA tracked the outcomes of students enrolled in TCSG and USG institutions who were enrolled in math and English learning support at any time during the five years following high school graduation. As seen in the figure below, students who had not enrolled in math or English remedial support had degree completion rates of 45.0%, compared to 18.2% of students who had enrolled in either math or English remedial courses.

Figure 15: Degree Completion by Learning Support



[18] Complete College America. Transform Remediation: The Co-Requisite Model (2010). Complete College Georgia. Complete College Georgia: Georgia Higher Education Plan 2012 (2012).

Patterns in High School Rates of Certificate and Degree Completion

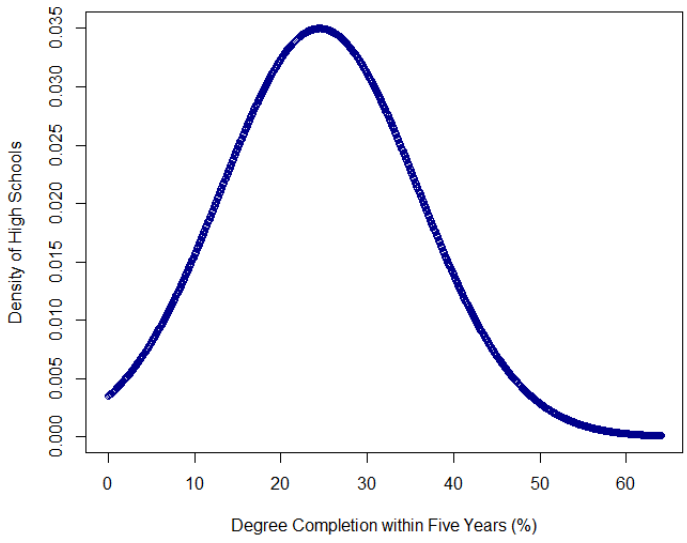
In addition to college enrollment rates, GOSA calculated degree completion rates by high school to determine the percentage of high school graduates who successfully completed credentials or degrees within five years.

When all high schools are compared, an average of 26.5% of students within a given high school graduating class complete a degree within five years.[19] Degree completion rates ranged from 0% at DeKalb County's Destiny Academy of Excellence Charter School and Quitman County High School to 64% at DeKalb County's Early College Academy. The density plot below shows the distribution of degree completion rates by high schools, with the middle 50% falling between 19.5% and 32.1%.

Table 8: Degree Completion by High School Summary Statistics

	Min	Average	Max	Standard Deviation
Enrollment	0.0	26.5	64.0	11.3

Figure 16: Density Plot of High School Degree Completion Rates



[19] High school classes with fewer than 10 graduates are excluded from this analysis.

District Geographic Patterns

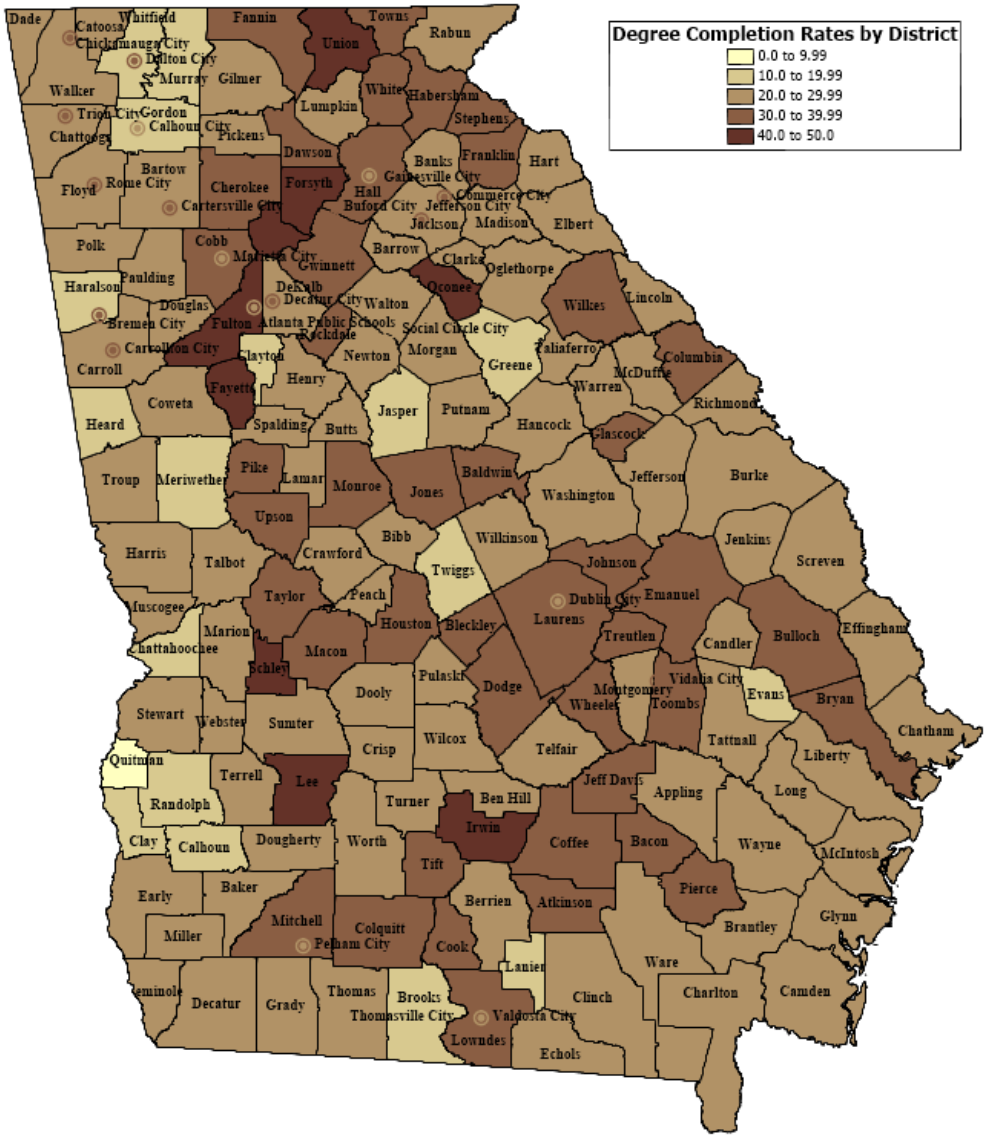
In three districts, more than 45% of graduates completed a degree within five years: Fayette County, Oconee County, and Schley County, while less than 15% of graduates received degrees in Chattahoochee County, Quitman County, and Twiggs County. When degree completion rates are compared by district enrollment, large districts with more than 5,000 graduates in the three years had a higher average degree completion rate (31.6%) than districts with fewer than 100 graduates (22.0%), even though these two groups have similar average enrollment rates.

Table 9: Summary Statistics for District Enrollment Percentages

	Min	Average	Max	Standard Deviation
Enrollment	0	27.6	47.4	6.8

The following map presents degree completion rates by district, with those in darker shades having higher degree completion rates than those in lighter shades.[20] Districts surrounding metro Atlanta had higher than average enrollment rates, while districts in the northeastern and southeastern region of the state had lower enrollment rates.

Figure 17: Map of Degree Completion Rates by District

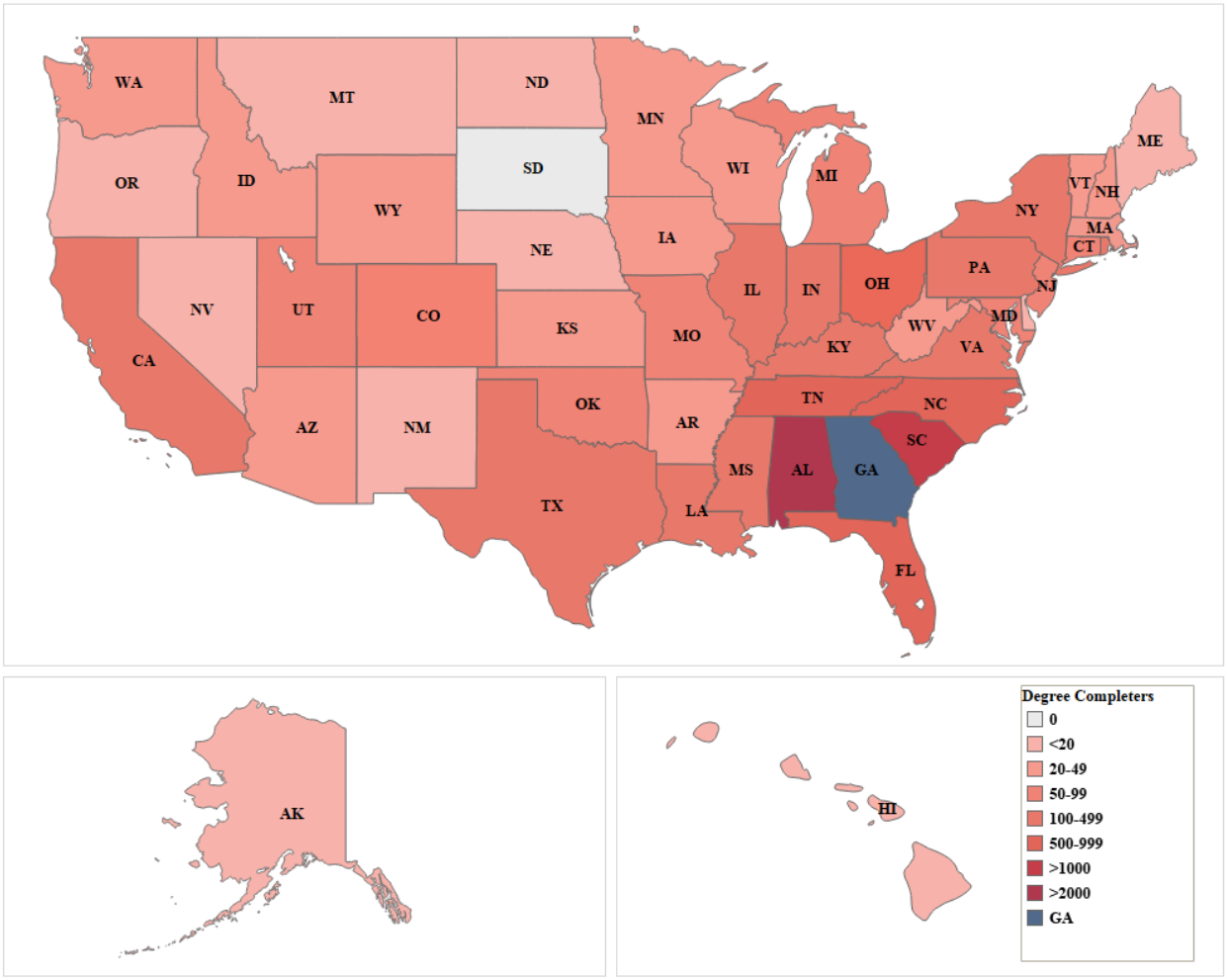


[20] Equal sized intervals of percentage ranges determine the color bands. Two state charter schools (Mountain Education Center and CCAT) have graduates in the dataset. However, since these two schools serve students statewide, they are excluded from this district-level analysis. Note that 11th and 12th graders from Clay County attend high school and graduate from Randolph County. In this map, Clay County is assigned the same percentage as Randolph County.

Out-of-State Degree Completion

As shown in the map below, of all out-of-state degree completers, Alabama had the most high school graduates complete degrees out of state, followed by South Carolina. Ten or fewer students received awards in the following states: Alaska, Delaware, Montana, Nebraska, Nevada, North Dakota, and Puerto Rico. Although high school graduates initially enrolled in colleges and universities in South Dakota and the Virgin Islands, no degrees were completed in either state/territory.[21]

Figure 18: Five-Year Degree Completers by State



[21] The District of Columbia, Puerto Rico, and the Virgin Islands are not portrayed on this map.

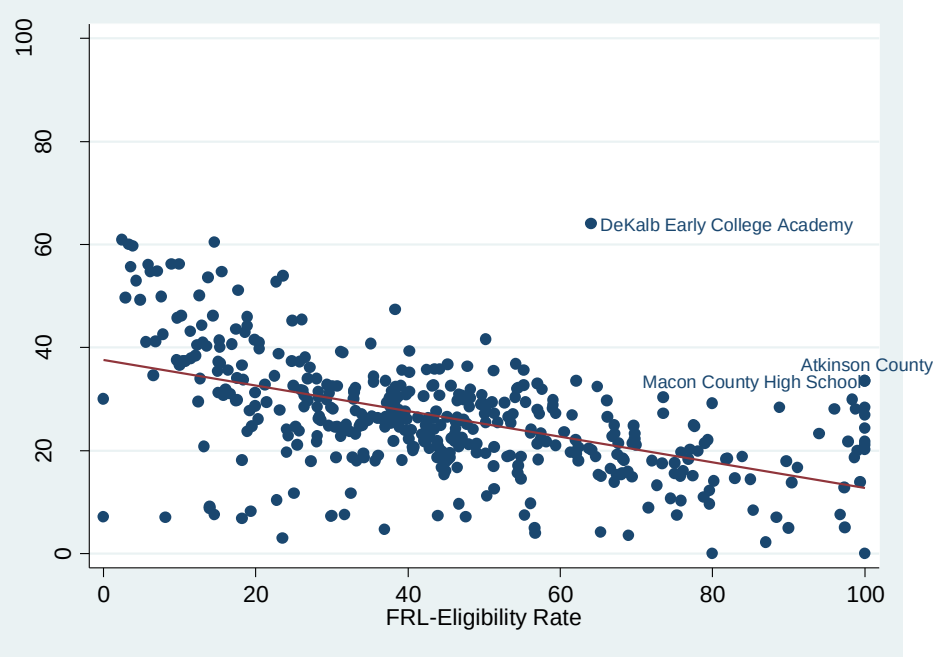
Relationship with Other Characteristics

The following section compares the degree completion rate with the following high school characteristics: percentage of graduates eligible for FRL, AP exam participation, and average high school graduation rates. These patterns are similar to the pattern found between these characteristics and the enrollment rates, which is expected given the strong correlation between the enrollment and degree completion rates.[22]

FRL Population

Similar to enrollment rates, a negative relationship is observed between the degree completion rate and the percentage of students eligible for FRL (see figure below). DeKalb Early College Academy again was as an anomaly, with both a high degree completion rate (64%) and high percentage of FRL students (64%). Several alternative schools are clustered in the bottom left corner, with degree completion rates under 10% and FRL populations under 20%.[23] Several schools with high FRL populations had higher degree completion rates than the trend line would suggest. Of particular note are Atkinson County High School and Macon County High School, which had one-third of graduates complete a degree despite 100% FRL eligibility.

Figure 19: Degree Completion Rates by Free and Reduced-Price Lunch



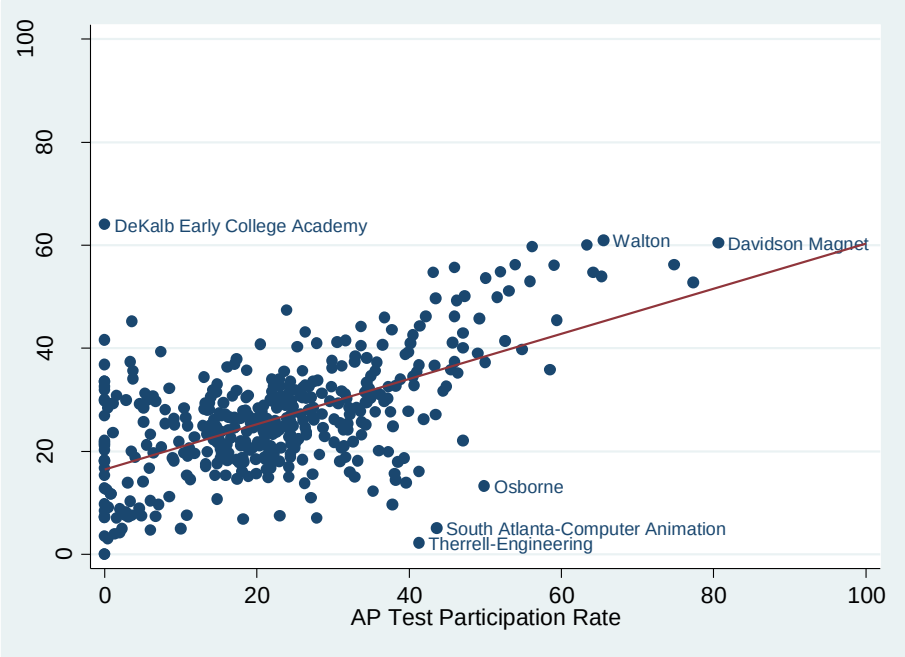
[22] The correlation coefficient is 0.84 for the two rates. This correlation will be explored in a later section.

[23] Henry County Evening Academy, Forsyth County Academy, Cobb County's Oakwood Digital Academy, Mountain Education Center School, Cherokee County's Polaris Evening School, Fayette County's Evening School, and Whitfield County's Phoenix High School.

AP Exam Participation

A positive relationship is also observed between the percentage of high school graduates taking the AP exam and the percentage of students completing a degree within five years (see figure below). In the upper left-hand corner, DeKalb Early College Academy appears as an outlier, with no students taking AP exams, but 64% of graduates obtaining a degree or credential within five years. Richmond County's Davidson Magnet School and Cobb County's Walton High School, located in the upper right-hand corner, had high AP test participation rates (>65%) and degree completion rates (>60%). Conversely, several schools located in the bottom of the figure are underperforming, with low degree completion rates when compared to their AP exam particpation rates: Cobb County's Osborne High School, APS' Therrell School of Engineering, Math, and Science, and APS' South Atlanta School of Computer Animation and Design.

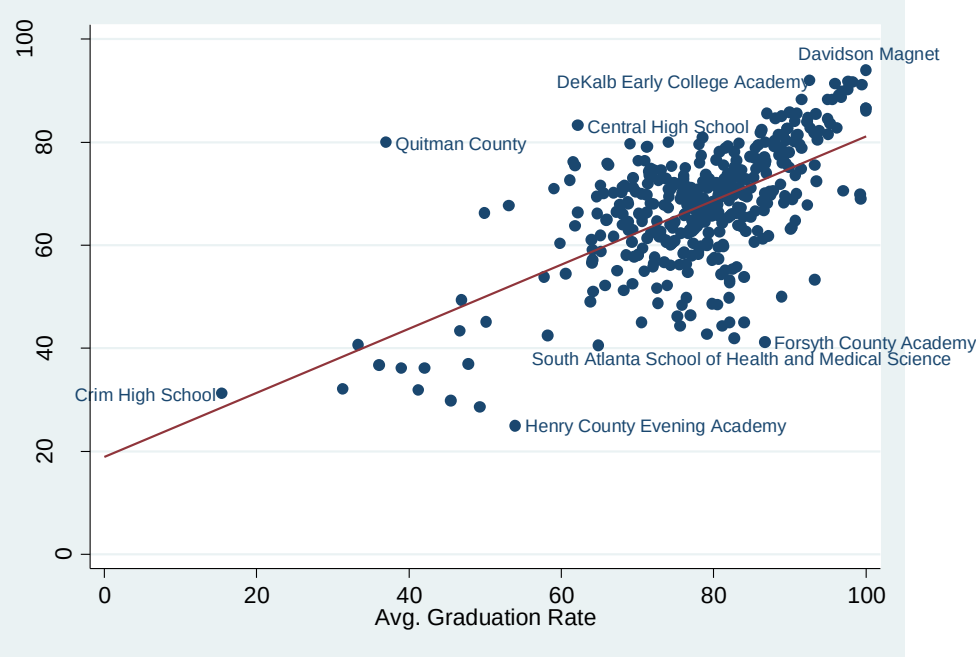
Figure 20: Degree Completion Rates by AP Exam Participation



High School Graduation Rate

A positive relationship is observed when high school degree completion rates are compared to high school graduation rates (see Figure 20). In other words, high schools with high graduation rates tended to have high degree completion rates as well. Several schools in the bottom right-hand corner had high graduation rates but low degree completion rates. For example, Muscogee County's Early College Academy of Columbus and Atlanta Public School's School of Technology at Carver, Early College High School at Carver, and Tech High School had an average graduation rate of over 90%, but fewer than 25% of students completed a degree within 5 years. Several schools in the top right corner have high graduation rates and a high degree completion rates: Cobb County's Walton High School, DeKalb County's Early College Academy, and Richmond County's Davidson Magnet School.

Figure 21: Average High School Graduation Rates by Degree Completion



Comparison of Enrollment Rates and Degree Completion Rates

When the enrollment and degree completion rates are compared, a strong positive relationship is observed between the two rates, as observed in the figure below. Several schools in the top right-hand corner had higher degree completion rates than expected based on the enrollment rate. For example, DeKalb Early College Academy, Cobb County's Walton High School, and Richmond County's Davidson Magnet School had degree completion percentages greater than 60%. APS's Therrell School of Engineering, Math, and Science is in the bottom center of the figure, with 61% of the graduating class enrolled in college or universities, but only 2% obtained a degree within five years. Similarly, Quitman High School did not have any degree completers, but had 80% of its high school graduating class enrolled in college.[24] DeKalb Alternative Night School had a degree completion rate that is higher than expected (22%) based on its enrollment rate (32%).

Figure 22: College Enrollment by Degree Completion Rates

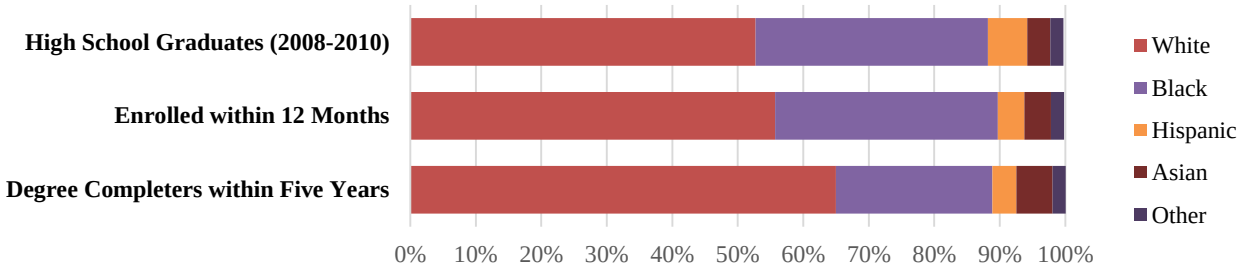
[24] Note that Quitman County had only 10 graduates over the three years.

Conclusion

This analysis provides information on the transition from high school to college and to completing a credential or degree. Following the high school graduating classes of 2008, 2009, and 2010, it investigates patterns in enrollment in college and degree completion based on characteristics of students and their high schools. Using data from these three graduating classes allows for analysis of degree completion since at least five years have passed since high school graduation. It is important to note that the outcomes presented in this paper should not be interpreted as cause-effect because additional factors outside of the scope of this analysis may play a role in the relationship.

The figure below presents the race/ethnicity percentages among of high school graduates, the number who enrolled in college within 12 months, and the number who completed a degree within 5 years.[25] Students who enrolled in college and those who earned degrees within this cohort are proportionally more likely to be white and Asian and less likely to be Hispanic and black when compared to the original high school graduate cohort.

Figure 23: Demographics of Graduates, Enrollees and Five-Year Degree Completers



Selected findings from the analysis of high school graduates between 2008 and 2010 include:

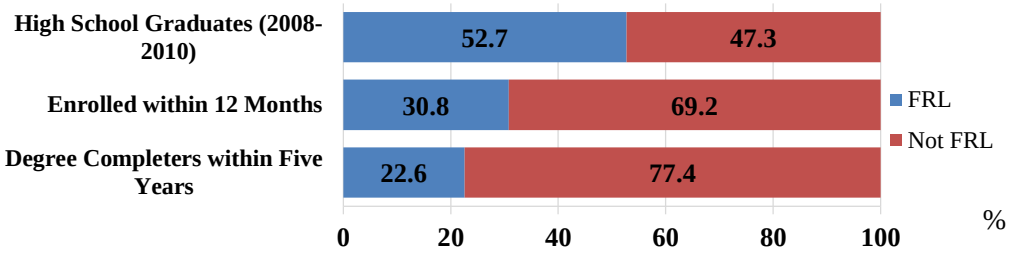
- Enrollment in College within 12 Months
  - 70.3% of high school graduates enrolled in college within twelve months of high school graduation.
  - Of those high school graduates enrolling, 86% of students selected in-state colleges.
  - Of the students enrolling in colleges outside of Georgia, a majority (57%) enrolled in the neighboring states of Alabama, South Carolina, Tennessee, Florida, and North Carolina.
  - High schools with higher participation rates on the SAT/ACT and AP tended to have higher enrollment rates, as do high schools with higher average three-year high school graduation rates (2008-2010).
  - High schools with high FRL-eligibility rates tended to have lower college enrollment rates.

[25] Degree completers waiting more than twelve months after high school graduation to enroll in college are included in the enrollment group in Figure 22.

Degree Completion

- Only 30.3% of the students in this study completed a certificate or degree within five years.
- Compared to all high school graduates, Hispanic and black students were proportionally underrepresented among degree completers, while white and Asian students were proportionally overrepresented.
- 52.7% of high school graduates were eligible for FRL, but only 22.6% of degree completers five years later were FRL-eligible.

Figure 24: Graduates, Enrollees and Five-Year Degree Completers by FRL Status



- 18.2% of students who required remediation in math and English at Georgia public colleges/universities complete a degree within five years, compared to 45.0% of students who did not require remediation.
- High schools with higher FRL-eligibility rates tended to have lower degree completion rates.
- High schools with AP exam participation rates and average high school graduation rates tended to have higher degree completion rates.

Throughout this analysis, several schools stood out as high-performing outliers, namely Richmond County's Davidson Magnet School, DeKalb County's Early College Academy, and Ware County's Ware Magnet School. These schools had enrollment rates over 86% and degree completion rates over 45%. In the case of DeKalb County's Early College Academy, this school had a high enrollment rate (92%), despite a high FRL-eligibility rate (64%) and low AP exam participation rate (0%).

Appendices

Appendix A. High School Outcomes Calculation Guide

Duplication Rules

High school students with multiple graduations within the same year and high school are removed; however, multiple graduations across years or schools are retained in this analysis. For students enrolled in multiple college/universities during the first year after high school graduation, the report applies the same ranking methodology as the High School Graduates Outcomes Dashboard.[26] No duplicates appear in the five year degree completers because the degree types are ranked by the logic found in Appendix C.

High School Graduate Cohort

The Georgia Department of Education defines a student as a high school graduate if he/she is withdrawn with a code for graduation (G) either as a junior or a senior and also earn one of the following diplomas (B-Both College Prep & Vocational, C-College Preparatory, G-General Diploma, or V-Vocational) in high school. High schools with graduating classes with fewer than ten graduates are excluded from this analysis. For a list of high schools that change school codes in this analysis, see Appendix B.

College Enrollment Calculation

The college enrollment rate is calculated for each high school to determine how many students enrolled in a college institution within twelve months of high school graduation. To calculate the overall college enrollment rate by high school, the total high school graduates from the three years is divided by the total high school graduates.

$$High\ School\ College\ Enrollment\ Rate = \frac{Total\ High\ School\ Graduates\ Enrolling\ within\ 12\ months}{Total\ High\ School\ Graduates}$$

Out-of-State College Counts

GA•AWARDS receives information on Georgia high school graduates who attend out-of-state institutions from the National Student Clearinghouse (NSC).[27] Any institution not located within the state of Georgia is considered an out-of-state college.

Percent of Students Taking the ACT and the SAT

The numerator for the SAT/ACT participation rates were the students taking either exam between 2005 and 2015, and the denominator is the total high school graduating class.

$$ACT/SAT\ Exam\ Participation\ Rate = \frac{Total\ High\ School\ Graduates\ Taking\ the\ SAT\ and\ /or\ the\ ACT}{Total\ High\ School\ Graduates}$$

[26] Click here for the calculation guide.

[27] NSC also provides information on the private institutions in Georgia that do not provide data to GA•AWARDS.

AP Exam Participation

The numerator for the AP participation rates is the number of students taking at least one AP exam between 2006 and 2015, and the denominator is the total high school graduating class. Students count as AP exam participants if they take an AP exam, regardless of which high school they were enrolled in when they took the test.

$$AP\ Exam\ Participation\ Rate = \frac{Total\ High\ School\ Graduates\ Taking\ the\ AP\ Exam}{Total\ High\ School\ Graduates}$$

Degree Completion Calculation

The degree completion rate is calculated for each high school in the three-year cohort to determine the highest degree that high school graduates obtained within five years. The highest award was selected by ranking according to the hierarchy below. A full list of degree types is listed in Appendix C.

Table 10: Degree/Certificate Ranking

Order	Category	Diploma Type
1	Master's or Higher	Post baccalaureate certificate, Masters, PHD, Doctorate, Professional, Doctor's degree – professional practice, First Professional A, Education Specialist
2	Bachelor's	Bachelor's degree, Bachelors
3	Associate's	Associates, Associate's Degree, Postsecondary Diploma, Diploma, Career Associate
4	Certificate	Certificate, Less than 1 Year Certificate, Advanced Certificate, One-year Vocational = Related Certificate

The overall degree completion rate is calculated by dividing the total degree completers in all cohorts by the total high school graduates.

$$Five\ Year\ Degree\ Completion\ Rate = \frac{Total\ High\ School\ Graduates\ Completing\ A\ Degree/Credential}{Total\ High\ School\ Graduates}$$

High School Learning Support Calculation

Learning support information is only available for students who enroll in TCSG and USG institutions. The learning support calculations were completed by identifying all students enrolled in learning support courses in TCSG and USG institutions. The numerator for this calculation is all students at a given high school who enrolled in math or English learning support within TCSG/USG for up to five years after high school graduation, and the denominator is all students who enrolled at TCSG or USG from that high school within five years of high school graduation. Note that this definition is slightly different from the definition employed by the High School Graduate Outcomes Dashboard. To access that definition, see the Calculation Guide.

Appendix B: High School Code Changes

During the matching process used to aggregate the three high school classes, GOSA identified nine high schools that changed school codes during the three years. In these cases, the school codes were updated to reflect the most recent school code. For example, Brooks High School in Brooks County had both school codes 110 and 2050, but all data were consolidated under the 2050 school code for calculations for this report. The majority of the school code changes occurred between 2009 and 2010.

Table 11: High School Code Changes

District	High School	2008 School Code	2009 School Code	2010 School Code
Brooks County	Brooks High School	614110	614110	6142050
Carroll County	Open Campus – Carroll County	622190	622190	622113
CCAT School	CCAT School	795	795	7830103
DeKalb County	DeKalb School of the Arts	644400	644400	644410
Forsyth County	Forsyth County Academy	658306	658306	658218
Laurens County	West Laurens High School	687110	6873054	6873054
Miller County	Miller County High School	700201	700201	700210
Mountain Education Center	Mountain Education Center	798108	798108	7820108108
Putnam County	Putnam County High School	717276	717114	717114

Appendix C: Degree Ranking

Source System		Order	Academic Program Level	Degree Level Code	Degree Level	Report Category
GICA		0	Unknown	99	Undecided / Unknown	**Unknown**
NSC		0	Unknown	X	N/A	**Unknown**
NSC		1	Undergraduate	C	Certificate	**Certificate**
TCSG		1	Undergraduate	1	Certificate	**Certificate**
USG		1	Undergraduate	C	One-year Vocational - Related Certificate	**Certificate**
USG		1	Undergraduate	Z	Less than 1 Year Certificate	**Certificate**
GICA		2	Undergraduate	3	Associate's degree	**Associate's**
NSC		2	Graduate	D	Postsecondary Diploma	**Associate's**
NSC		2	Undergraduate	A	Associates	**Associate's**
TCSG		2	Undergraduate	2	Diploma	**Associate's**
TCSG		2	Undergraduate	3	Associate's Degree	**Associate's**
TCSG		2	Undergraduate	4	Diploma	**Associate's**
USG		2	Undergraduate	A	Associate	**Associate's**
USG		2	Undergraduate	V	Career Associate	**Associate's**
GICA		3	Undergraduate	5	Bachelor's degree	**Bachelor's**
NSC		3	Undergraduate	B	Bachelors	**Bachelor's**
USG		3	Undergraduate	B	Bachelors	**Bachelor's**
GICA		4	Graduate	18	Doctor's degree - professional practice	**Master's or Higher**
GICA		4	Graduate	6	Post baccalaureate certificate	**Master's or Higher**
GICA		4	Graduate	7	Master's degree	**Master's or Higher**
NSC		4	Graduate	M	Masters	**Master's or Higher**
NSC		4	Graduate	P	PHD	**Master's or Higher**
NSC		4	Professional	F	Professional	**Master's or Higher**
USG		4	Graduate	D	Doctorate	**Master's or Higher**