

# RPA Research and In-Depth Analyses



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# Update on Previously Presented Items

<https://www.usg.edu/research/publications>

## Publications

RESEARCH & POLICY BRIEFS

+

RESEARCH & POLICY PRESENTATIONS

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[Are Online Master's Courses Associated with Decreased Borrowing? Evidence from the University System of Georgia](#) 

[Postsecondary Experiences for First-Generation First-Time Freshmen in Georgia](#) 

[Investigating Georgia High School Graduates' Postsecondary Participation](#) 

[Examining the Relationship Between Course Modality and Academic Outcomes in Subsequent Courses](#)

(Note: This link will take you to an external site.)



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# GEORGIA MATCH

Lori Prince Hagood, Kevin Lusk, Leslie Hodges, Jaden Mikoulinskii

## Purpose

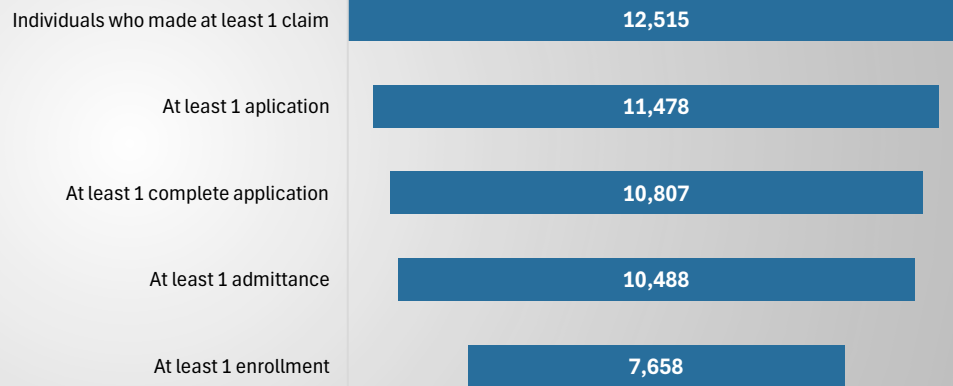
This work is an examination of the application to enrollment pipeline among GEORGIA MATCH participants from claiming a spot to applying to enrolling. We also investigate the overlap in engagement across USG institutions.

## Type of Analysis

Descriptive. We matched student-level records across three data sources: ADC, applicant data ad hoc collection, and GEORGIA MATCH data from GSFC (students who claimed a spot, where and when). We produced system-level tables and charts that show the full pipeline from claiming a spot to enrolling. And we produced this information for each institution.

**We will be presenting on this in detail at an upcoming webinar on October 15.**

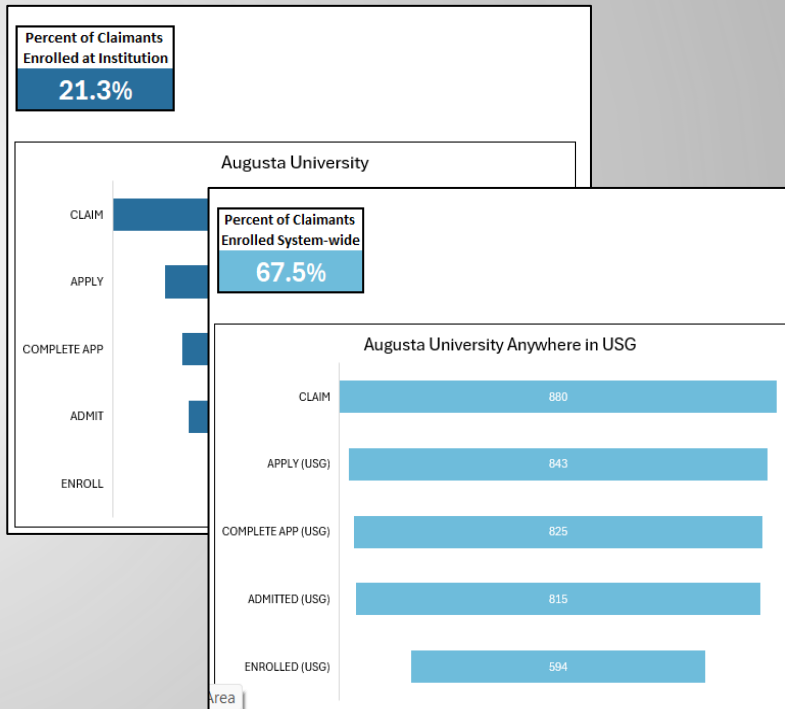
### University System of Georgia Georgia Match Pipeline Fall 2024



# GEORGIA MATCH

Lori Prince Hagood, Kevin Lusk, Leslie Hodges, Jaden Mikoulinski

| Georgia Match Claims<br>Augusta University   |       |       |              |       |        |
|----------------------------------------------|-------|-------|--------------|-------|--------|
|                                              | CLAIM | APPLY | COMPLETE APP | ADMIT | ENROLL |
| Augusta University                           | 880   | 678   | 612          | 587   | 187    |
| Anywhere in USG                              | 880   | 843   | 825          | 815   | 594    |
| Kennesaw State University                    | 244   | 400   | 378          | 367   | 101    |
| Georgia State University                     | 192   | 304   | 304          | 273   | 56     |
| Georgia Southern University                  | 160   | 320   | 293          | 288   | 54     |
| University of North Georgia                  | 103   | 172   | 31           | 31    | 31     |
| Albany State University                      | 70    | 64    | 45           | 45    | 5      |
| Clayton State University                     | 47    | 45    | 27           | 24    | 6      |
| Columbus State University                    | 41    | 65    | 55           | 36    | 3      |
| Valdosta State University                    | 37    | 109   | 87           | 81    | 10     |
| University of West Georgia                   | 32    | 72    | 4            | 4     | 6      |
| Georgia Gwinnett College                     | 24    | 55    | 42           | 42    | 10     |
| Savannah State University                    | 20    | 43    | 32           | 31    | 3      |
| Fort Valley State University                 | 19    | 68    | 58           | 57    | 9      |
| College of Coastal Georgia                   | 17    | 38    | 30           | 29    | 3      |
| Georgia Southwestern State University        | 13    | 23    | 21           | 9     | 1      |
| East Georgia State College                   | 12    | 24    | 6            | 11    | 6      |
| Abraham Baldwin Agricultural College         | 11    | 21    | 5            | 16    | 5      |
| Middle Georgia State University              | 11    | 40    | 34           | 34    | 5      |
| Georgia Highlands College                    | 7     | 18    | 11           | 11    | 2      |
| Atlanta Metropolitan State College           | 6     | 6     | 2            | 2     | 0      |
| Georgia State University - Perimeter College | 5     | 26    | 22           | 19    | 7      |
| Dalton State College                         | 5     | 18    | 16           | 16    | 7      |
| Gordon State College                         | 3     | 20    | 10           | 10    | 2      |
| South Georgia State College                  | 1     | 9     | 8            | 8     | 0      |
| Georgia College & State University           | 0     | 120   | 96           | 69    | 17     |
| University of Georgia                        | 0     | 275   | 251          | 103   | 52     |
| Georgia Institute of Technology              | 0     | 148   | 145          | 44    | 23     |



# College Affordability Data for Senate Subcommittee

RPA & EDMA

## Purpose

There was a Senate Subcommittee hearing on college affordability on September 18. We prepared a number of materials to answer the committee's questions on the cost of higher education.

## Overview of what was provided

- Total student loan debt
- Trends in cost of attendance
- Students who lose the HOPE scholarship and subsequent borrowing
- Borrowing peer comparison
- Unmet need for HOPE recipients and non-recipients and Pell recipients and non-recipients
- Total cost of degree completion



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# Working Students

Patrick Harris & CVIOG

## Purpose

The study aims to better understand the relationship between work, cost of attendance, and student course loads.

## Type of Analysis

**Descriptive Analysis:** Trend analysis by sex, race/ethnicity, and institution sector

**Predictive Modeling:** Double machine learning models are in development to explore causal inference between work intensity and academic outcomes.

## Overview of Findings

- Students who worked full-time or more tended to be older, female, Black, or Hispanic as compared to students who did not work or worked 20 or fewer hours per week.
- Full-time working students were 10.9% more likely to enroll part-time.
- USG undergraduates tend to increase their weekly hours worked as net cost increases; students at state colleges had the highest sensitivity to changes in cost as it relates to hours worked.
- Students working moderate hours (up to 20 hours per week) earned credits similar to non-working students, students working 21-39 hour each week earned marginally fewer credits, and those working full-time earned the fewest credits.



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# Fort Valley State Dropout Prediction

Patrick Harris & Pardha Annapareddy

## Purpose

The study examines mid-progress attrition (30–95 credit hours) at Fort Valley State University, with the goal of identifying risk factors and informing interventions to improve retention and graduation rates.

## Type of Analysis

**Contextual Trends:** Enrollment patterns, GPA/credit accumulation, financial aid status, and demographics.

**Predictive Modeling:** Machine learning (Logistic Regression, Random Forest, XGBoost, LightGBM, CatBoost) with SHAP interpretability to identify drivers of dropout risk.

## Overview of Findings

- Students with high credit hours but a stalled GPA show elevated dropout risk.
- Loan burden predicts attrition more strongly than Pell eligibility alone.
- Online, older, and financially independent students face a higher dropout likelihood.
- CatBoost achieved a recall above 90%, while LightGBM provided balanced accuracy (~75%), supporting use for early-warning interventions.



# Return on Investment for Bachelor's Degrees

## RPA & CVIOG

### Purpose

Determine the return on investment for earning a bachelor's degree at USG institutions and the earnings premium for UGS bachelor's graduates compared to high school graduates.

### Analytic Approach

- Calculate ROI for USG bachelor's graduates using cost of attendance and forgone earnings and ten years of wages post-graduation.
- Determine whether and when post-graduation earnings exceeds the higher education investment (cost of attendance, forgone earnings)
- Compare cumulative wages (including the initial investment) for bachelor's graduates to high school graduates (from US Census).

### Overview of Findings

On average, USG graduates with 10 years of annual work history post graduation and whose highest degree attained is a bachelor's degree, reach a positive ROI within five years of graduation, some much sooner, and gain an earnings premium within 8 years of graduation.



# GA High School Graduate Postsecondary Participation

Yanling Ma & Leslie Hodges

## Purpose

This study is a continuation of our initial descriptive exploration of postsecondary enrollment trends among Georgia public high school graduates. In this iteration, we focus on predicting the likelihood of college enrollment among Georgia public high school graduates based on student characteristics, academic preparation, and HOPE-eligibility.

**Type of Analysis:** Logistic regression

## Overview of Preliminary Findings

Likelihood of enrolling in college is impacted by student characteristics like race and gender

- Women are more likely to enroll compared to men
- Asian students had the greatest likelihood of enrollment; Hispanic students had the lowest compared to white students

Likelihood of enrolling is impacted by HOPE-eligibility

- HOPE-eligible students were more likely to enroll compared to ineligible students; likelihood varies notably by race

Likelihood of enrolling is impacted by dual enrollment and AP participation

- Students with dual enrollment or AP experience had a higher likelihood of enrolling compared to their peers who did not participate in dual enrollment or AP



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