

PANTHER RETENTION GRANT

SUMMER SUCCESS ACADEMY

Freshman Learning Community



Programs That Make a Difference: Workforce Outcomes for Georgia State University Student Success Program Participants

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Acknowledgments

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Executive Summary

Purpose and Scope of the Report

This report evaluates how Georgia State University's National Institute for Student Success (NISS) student success interventions are related to long-run workforce outcomes. Using student-level records provided by GSU and matched career history data from the Burning Glass Institute's comprehensive career history profile dataset – which now encompasses more than 65-million American workers, representing two-thirds of the college-educated workforce – researchers analyzed students across four major student success initiatives:

- Proactive, analytics-based advising (henceforth Advising)
- Panther Retention Grants (PRG)
- Meta-Major Freshman Learning Communities (FLC)
- Summer Success Academy (SSA)

Findings draw on a matched comparisons convenience sample¹ and reflect correlations rather than causal estimates, identifying measurable differences in how interventions shape academic choices, employment outcomes, wages, and career progression.

Key Findings

From Enrollment to Degree: Interventions Help Students Stay on Track

NISS programs improve persistence and completion outcomes. The Panther Retention Grant has proven especially effective in keeping students on track: only 5% of PRG recipients (6% of advising-era PRG recipients) fail to complete any postsecondary credential, compared to much higher stop-out rates among peers, ranging from 8-17%. Similarly, the Summer Success Academy—serving a highly diverse population that is about 60% Black, 60% women, and two-thirds Pell recipients—demonstrates strong persistence effects: while roughly one in three participants stop out, about half ultimately graduate from GSU.

Since the launch of proactive advising in 2012, shifts in students' major choices have coincided with broader labor market trends, including rising demand for computing and declines in health-related hiring. During this period, students at GSU became 2 percentage points more likely to major in computer science and 3 points less likely to major in health professions – patterns that reflect economic conditions as much as institutional practice. Within the advising era, participation in Freshman Learning Communities (FLCs) aligns with these same trends; Pell students in FLCs, for example, were nearly 4 percentage points more likely to major in computer science than advising-only peers.

Transition to Work: Launching into the Workforce

Students who participate in NISS programs carry their gains into the workforce. Those with sustained advising exposure are nearly twice as likely to secure jobs aligned with their field of study, and outcomes improve even further when supports are layered. Pairing advising with PRG or FLC participation amplifies alignment gains—particularly for Pell recipients, whose degree-to-occupation alignment reaches 17% between years three and six post-graduation, outpacing non-Pell peers.

During the advising era, graduates who participated in both advising and FLCs were almost 3 percentage points more likely to enter computer and mathematical occupations, reflecting broader labor market shifts towards technical roles at the time. Graduates who received a PRG during this period showed comparatively higher entry into business and finance positions, a pattern consistent with employment trends in those fields rather than the effect of any single intervention. These interventions also translate into stronger wage outcomes: PRG and advising participants earn \$5–6K more in fields such as social science and computer science, with returns rising to \$8–9K for Pell students.

While underemployment remains a challenge—with about 38% of graduates working below their degree level one year after finishing college—this rate compares favorably to national estimates, where more than half of recent bachelor's degree holders are underemployed one year after completion.² Against this broader backdrop, these findings underscore that proactive, layered supports can meaningfully improve graduates' alignment and earnings, helping to narrow persistent opportunity gaps.

Career Progression: Sustaining Success in the Labor Market

In the years that follow, the benefits of sustained and layered supports continue to unfold. Students advised for three to four years transition into management more quickly than their peers, demonstrating clear advising “dose effect.” PRG recipients accelerate even faster, with about 2.5% of alumni reaching executive positions within one year of graduation, rising to over 3% by year five, outpacing other cohorts. FLC participants, though initially slower to reach management, catch up over time, suggesting long-term professional growth benefits. Advising-era GSU graduates reach peak degree-occupation alignment by year 3 (15.5%) followed by a steady decrease, whereas transfer grads see consistent gains through year 6, reaching over 13% despite overall lower rates of alignment. Among Pell students, those who participated in three interventions (advising + FLC + PRG) maintain degree-occupation alignment above 17% between years three and six, surpassing their non-Pell peers.

Ultimately, these results show that NISS programs do more than help students graduate – they shape their long-term career trajectories. Proactive advising, PRGs, FLCs, and SSA extend the impact of higher education into the labor market, strengthening degree value, accelerating advancement, and narrowing opportunity gaps. Through this ecosystem, GSU and NISS demonstrate how academic innovation can evolve into sustained economic mobility for its students.

Introduction

Context and Goals

Over the past decade, Georgia State University has emerged as a national leader in leveraging data and innovation to advance student success. Through a coordinated portfolio of interventions ranging from proactive advising systems to microgrants and structured learning communities, GSU has dramatically improved persistence, reduced long-standing equity gaps, and increased graduation rates for thousands of students. These investments reflect a central belief that institutional practices can be redesigned to remove barriers, support timely completion, and ensure that every student has the opportunity to succeed.

The National Institute for Student Success (NISS) was established to extend this mission, translating GSU's evidence-based strategies into a broader framework for higher education reform. NISS supports institutions nationwide in diagnosing barriers to student progress, implementing targeted interventions, and measuring results. Yet at GSU itself, NISS also serves as a living laboratory, continuously assessing whether these student success programs not only help students graduate, but also set them up for meaningful and sustained success in the workplace.

This report examines how four NISS interventions shape the long-term trajectories of students after graduation. By linking student records with career histories from the Burning Glass Institute, this analysis moves beyond traditional measures of academic success to ask a deeper question: Do the same supports that help students persist in college also expand their economic opportunity once they leave it?

This analysis positions NISS investments within a broader narrative of upward mobility, demonstrating how academic innovation, financial aid, and guided pathways combine to produce tangible improvements in labor-market outcomes.

Programs in Focus

The NISS ecosystem is built around four cornerstone initiatives designed to remove systematic barriers to completion and strengthen pathways from college to career. Each program represents a distinct intervention, yet all share common goal: using data and proactive support to ensure that students persist, graduate, and thrive after leaving the university.

Proactive, Analytics-Based Advising

In 2012, Georgia State reinvented its academic advising model with the introduction of the GPS Advising System and the decision to centralize all advising rather than have it siloed in individual colleges. The institution is committed to tracking students daily and intervening in a proactive fashion, when necessary. Grounded in a decade of GSU student data and over 2.5 million grades, predictive analytics were developed to determine how each student will fare in any major or course offered. The system tracks students' decisions and academic performances daily, alerting administrators when a student is off path. Since the launch of GPS Advising, over 700,000 proactive interventions have taken place, every student

has a personalized four-year academic map, freshman fall-to-spring retention rates have increased, and graduating seniors are taking fewer excess courses when completing their degrees. In 2023, Ithaka S+R completed a six-year randomized control trial that assessed the impact of the Georgia State advising model. The study concluded that Georgia State's approach to advising has resulted in a 7 percentage-point increase in six-year graduation rates overall, and a 15 percentage-point increase for Black students.

Panther Retention Grants

In 2010, Georgia State University administrators found that more than 1,000 students were dropped each semester due to unpaid tuition and fees. To address this problem, in 2011 GSU introduced a no-application microgrant program for students with modest unpaid balances. Eligibility criteria for participants included outstanding balances below \$2,500, upper-division status, exhaustion of all other financial aid, meeting GPA requirements, and not surpassing the aggregate \$7,500 PRG award limit. Data from an eight-year longitudinal study showed that 87% percent of PRG recipients graduated from Georgia State University within six years, compared to only 32% of the dropped students. Moreover, this 87% GSU graduation rate for PRG recipients even surpassed the rate for non-dropped senior students (80%), indicating a strong association between micro-grants and higher graduation rates. Initial cohorts have been graduated for over a decade at this point allowing time for substantial post-graduate outcomes. The PRG program has also contributed to a trend of Georgia State students graduating more quickly and with less debt. Average loan debt at graduation for Georgia State's bachelor's students has declined each of the last seven years, dropping from an average of \$21,430 to \$16,929. In a study conducted by Ithaka S+R, researchers also found that PRG recipients are accumulating \$3,700 less debt than similar students who do not receive the grant (Rossman et. al, 2022).

Meta-Major Freshman Learning Communities

At a large public university such as Georgia State, first year students can easily feel overwhelmed by not only the size and scope of the campus but by the choices they are asked to make before they even begin their courses. When students register at Georgia State, they are required to enroll in one of seven meta majors: STEM, business, arts and humanities, policy, health, education, and social sciences. Once students have selected their meta-major (with input from advisors and career-affinity instruments), they are given a choice of several block schedules relevant to their first year of study. Students are assigned to Freshman Learning Communities (FLCs) consisting of 25 students who are in the same meta major and take classes according to the same block schedules. Students travel through their classes together, building friendships, study partners and support along the way. Beyond this, students receive targeted and intentional support based on the meta majors they have selected throughout their first year, at which point they are required to declare a major. Organizing FLCs by meta majors has been a core part of the FLCs since 2010.

Summer Success Academy

Georgia State uses predictive analytics to identify academically at-risk, newly admitted students to participate in a credit-bearing program in the summer term before first-fall enrollment. Students are required to attend a seven-week summer session, where they are enrolled in college-level credits alongside their non-SSA peers and receive ongoing support from the university's tutoring, advising, financial literacy and academic skills programs. Prior to the academy's inception, which began in 2012, students with similar academic profiles had a 50% retention rate. In 2023, over 300 bachelor's students and 100 associate students were enrolled in the program and were retained at a 71.1% rate, compared to the first-year class's 77.5% retention rate.

Methodology

Data Matching and Coverage Rates

To analyze workforce outcomes among students and graduates, Institute researchers implemented a hierarchical, rule-based matching algorithm that links GSU student records to career history data from BGI's proprietary database, enabling observation of employment, industry, and other factors before and after enrollment. This approach captures the full career trajectories of both degree students and graduates, providing a comprehensive picture of the impact of student success interventions on long-term workforce outcomes.³

Researchers matched over 53,000 out of nearly 85,000 individuals but dropped 13,000 during the quality assurance process. Ultimately, the analysis observes the career histories of over 40,000 unique former GSU students and graduates who attended between 2006 and 2025.

Match Rate	Matched Unique Individuals in Analysis Dataset	Total Unique Individuals in Source Data
47.52%	40,216	84,635

Together, the data allow researchers to move beyond static snapshots of employment to a longitudinal view of graduate progression, linking the NISS program ecosystem to measurable career and economic outcomes.

Analytical Framework and Outcome Metrics

To evaluate the long-term workforce outcomes of NISS initiatives, researchers at the Burning Glass Institute used a matched comparative design linking student-level data from GSU to career histories in BGI's national database. This approach allowed the Institute to uncover long-term differences between students who participated in different intervention programs while maintaining consistency in the timeframe, demographic mix, and academic profiles of the students studied.

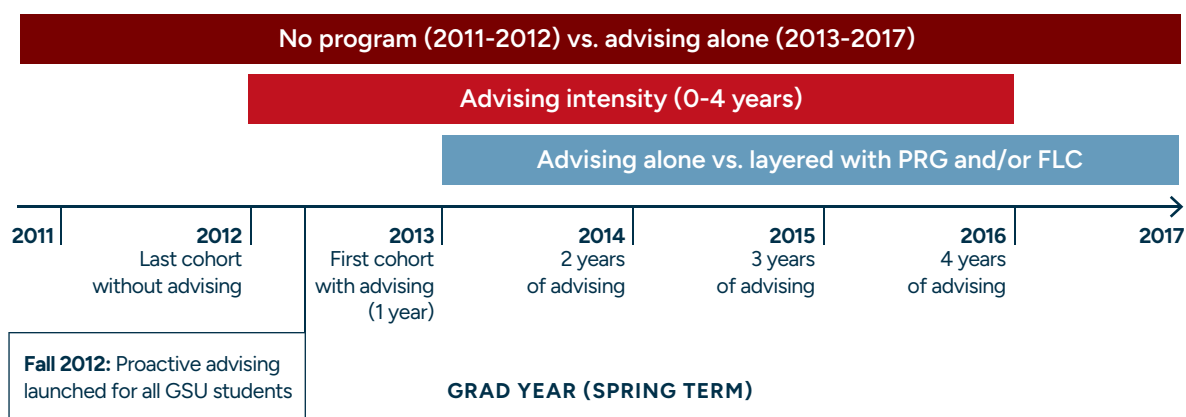
Because participation in each intervention reflects academic standing, financial eligibility, or predictive risk rather than random assignment, the results of this analysis should be understood as correlational rather than causal. In other words, the findings identify associations between program participation and subsequent workforce outcomes, not definitive evidence of cause and effect. This approach respects the nature of the programs, many of which intentionally target specific populations, and focuses on how differences in exposure relate to measurable long-run results.

Cohort Design and Baselines

This analysis defines comparison cohorts (by graduation year) to strengthen validity and ensure that students were exposed to consistent combinations of programs:

- **No Program (2011-Summer 2012) vs. Advising (Fall 2012-2017):** Assess how outcomes shifted after proactive advising became standard in Fall 2012, capturing both the introduction of the system and the influence of broader macroeconomic shifts before and after its launch.
- **Advising vs. Advising + FLC (Fall 2012-2017):** Measures the additional benefit of structured learning communities layered on top of advising.
- **Advising vs. Advising + PRG (Fall 2012-2017):** Tests whether adding microgrants to advising strengthens completion and career outcomes.
- **Advising Intensity (Fall 2012-2016):** Examines the effect of sustained exposure to advising by comparing outcomes for students with zero to four years of proactive support.

Figure 1: Cohort Design and Baselines



Defining baselines in this way ensures similar comparisons across interventions and captures program effects as they evolved over time. It also enables evaluation of both discrete and layered program combinations, for example, how outcomes differ for students who received advising alone versus those who combined advising with PRG or FLC participation.

Further, throughout the report, the term “graduates” should be understood to refer to the aggregation of GSU graduates and transfer graduates, unless otherwise noted.

Distribution of Students Across Interventions

The analytic sample includes more than 23,000 Georgia State University students who participated in one or more NISS initiatives between 2011 and 2017. Proactive Advising represents the broadest program exposure, encompassing over 13,000 students, followed by the No Program comparison group of nearly 6,000 students who were enrolled before the implementation of analytics-based advising in Fall 2012. Among layered interventions, Advising + PRG and Advising + FLC are the most common combinations, while smaller subsets engaged in more complex, multi-layered interventions.

Figure 2: Distribution of Students Across Interventions

Program Status	n
<i>Advising</i>	13,418
<i>No Program</i>	4,847
<i>Advising + PRG</i>	1,762
<i>Advising + FLC</i>	1,689
<i>Advising + FLC + PRG</i>	270
<i>Advising + FLC + SSA</i>	119
<i>PRG</i>	38
<i>Advising + SSA</i>	22
<i>Advising + PRG + SSA</i>	21
<i>Advising + FLC + PRG + SSA</i>	17
<i>FLC</i>	3
<i>FLC + PRG</i>	2

Outcome Metrics

Across all analyses, researchers evaluated five primary outcome domains:

- 1. Educational Attainment:** Degree completion, transfer, and continuation patterns.
- 2. Occupational Alignment:** The relationship between graduates' field of study (CIP)⁴ and their occupation (SOC)⁵ as a measure of career relevance.⁶
- 3. Underemployment:** The share of graduates working in jobs that do not require a college degree after graduation.
- 4. Earnings:** Real wages in the first five years after graduation, tracked across major fields.
- 5. Career Advancement:** Progression into management or executive-level roles over time.

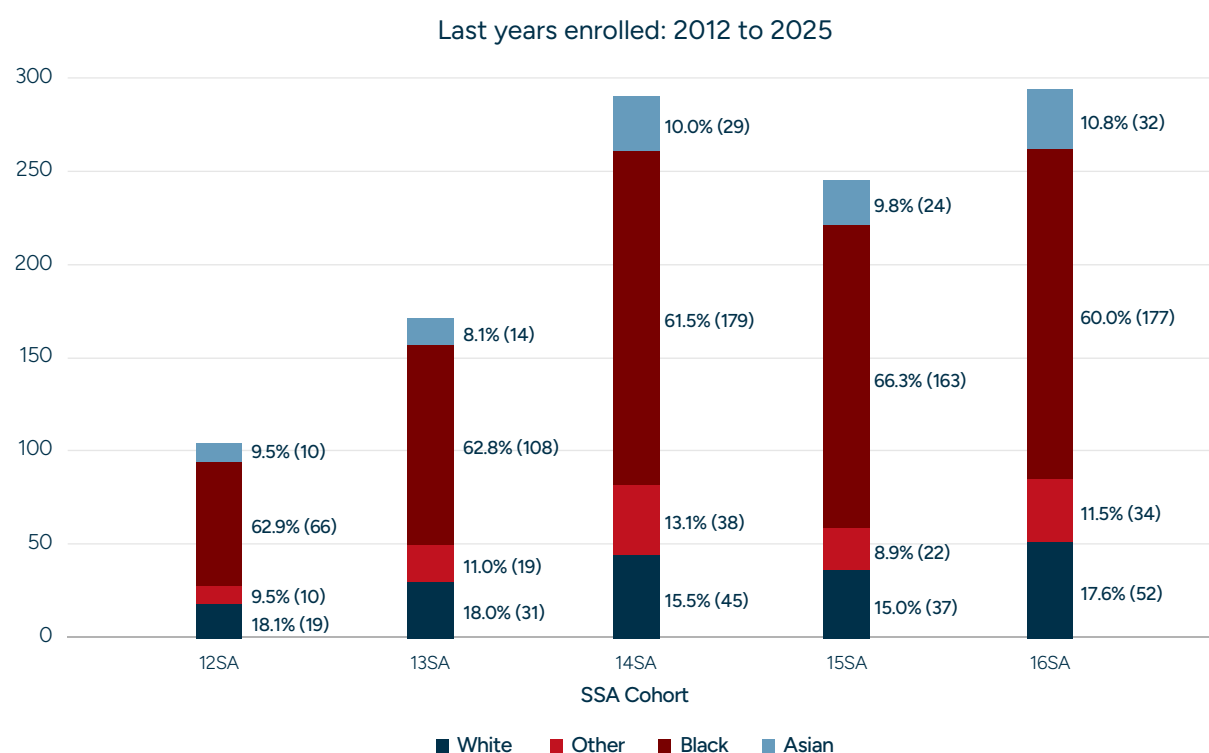
These metrics collectively provide a comprehensive view of how NISS interventions translate into labor market outcomes, linking educational reform to measurable economic opportunity.

Descriptive Foundations

Summer Success Academy Student Profile

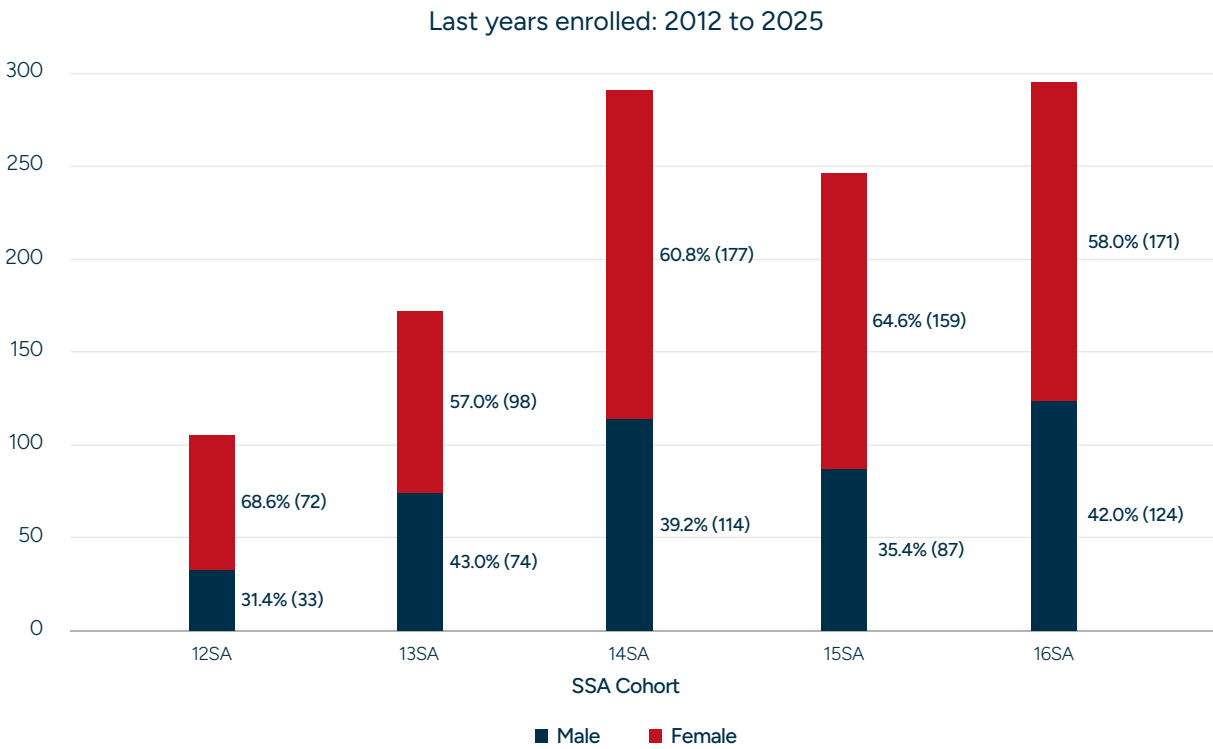
The Summer Success Academy (SSA) serves as one of the university's most targeted interventions, designed for newly admitted students identified through predictive analytics as academically at risk. SSA cohorts are consistently diverse and equity oriented. Across the 2012-2015 cohorts, Black students represent about 60-66% of participants, a share that remained steady over time, while women account for roughly 60% of each class. Each entering cohort also includes a majority Pell grant recipients (61-75%), confirming SSA's reach among lower-income and first-generation students.

Figure 3: SSA Cohort by Race



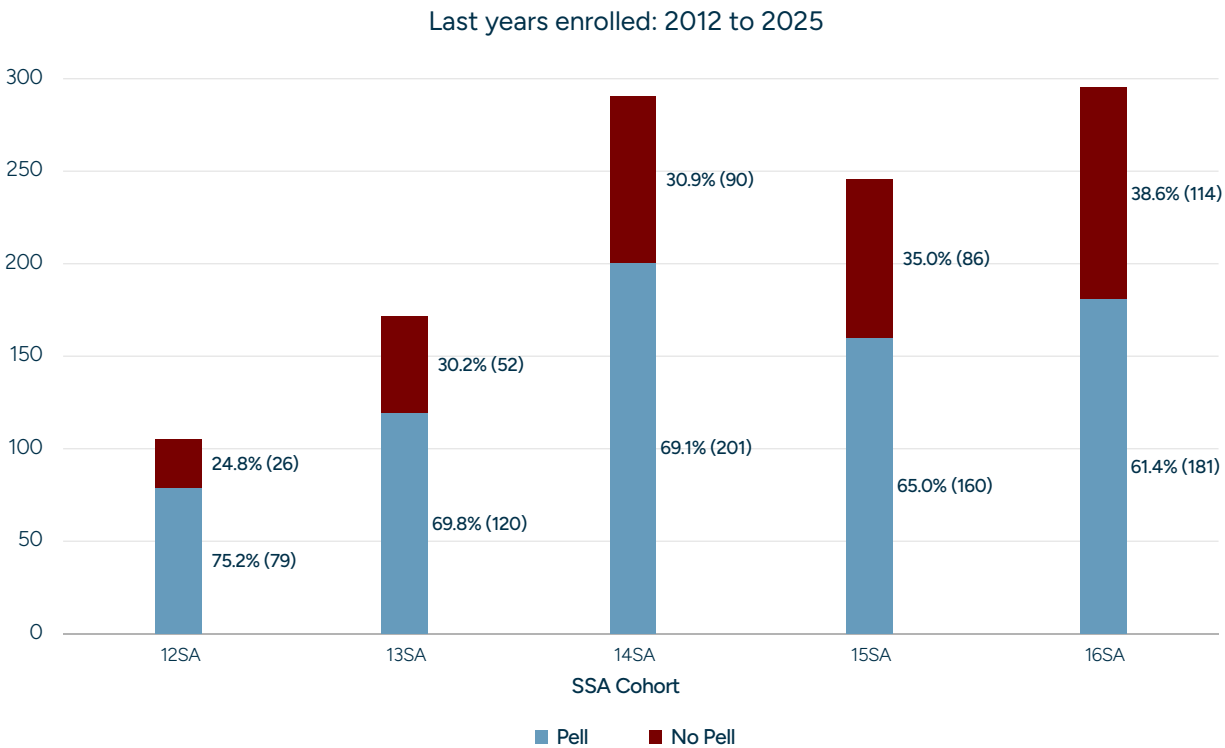
Source: Burning Glass Institute

Figure 4: SSA Cohort by Sex



Source: Burning Glass Institute

Figure 5: SSA Cohort by Pell Status



Source: Burning Glass Institute

Completion trends among SSA participants highlight both progress and ongoing challenges. More than half of all SSA students graduate from Georgia State, while roughly one-third stop out and a smaller share transfer to other institutions. Historically, similar students had first-year retention rates near 50%, compared to over 70% among SSA participants today. These outcomes underscore SSA’s effectiveness in providing an on-ramp to college success for students who might otherwise struggle to persist.

Figure 6: SSA Cohort by Status



Source: Burning Glass Institute

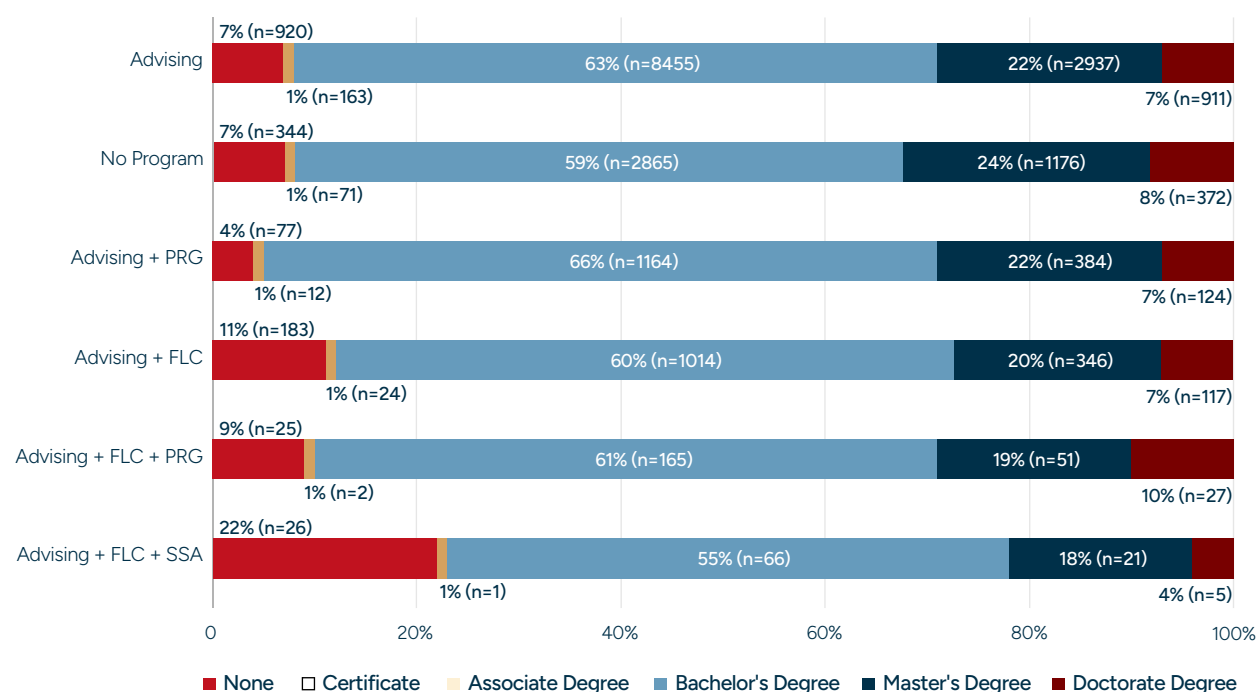
Workforce Outcomes for Student Success Program Participants

From Enrollment to Degree: Staying on Track

Educational Attainment

Across interventions, patterns of degree completion vary in meaningful ways. PRG recipients exhibit the highest bachelor's degree completion rates, with 67% earning a BA and only 5% failing to complete any postsecondary credential – the lowest non-completion rate of any intervention group. Students in Advising and Advising + FLC groups show strong performance as well, with 63-65% earning a bachelor's degree, while 6-8% continue to a master's or doctoral program.

Figure 7: Maximum Educational Attainment by Intervention Group



Source: Burning Glass Institute

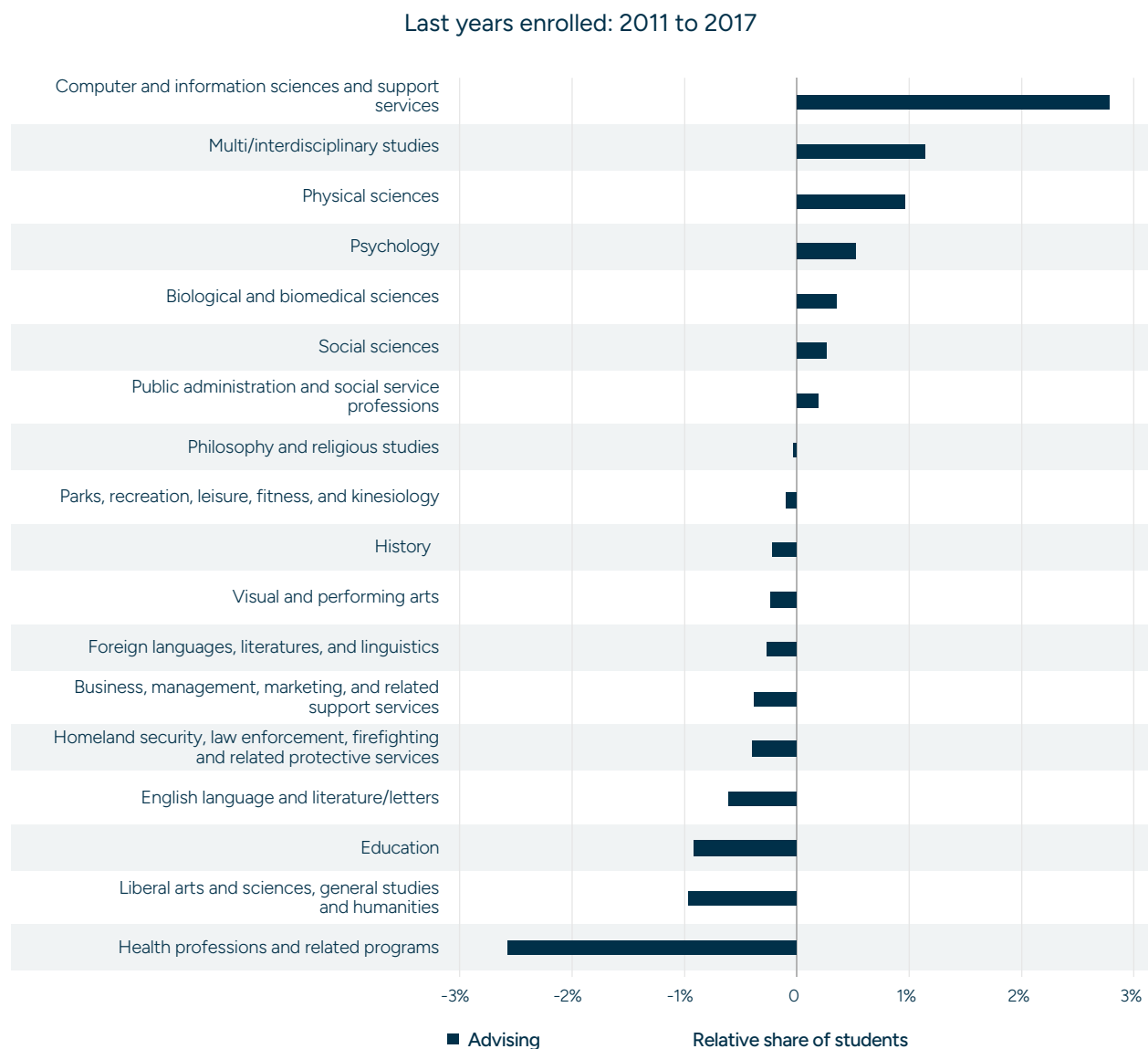
Layered interventions generally maintain high attainment levels, though completion rates decline modestly in the most complex combinations. For example, students who participated in Advising + FLC + SSA completed bachelor's degrees at a rate of 61%, while 17% did not complete any credential. This elevated non-completion rate likely reflects the smaller and more specialized nature of this cohort rather than program effects alone.

Overall, these patterns confirm that layered NISS programs, especially proactive advising and PRG, are closely associated with improved academic persistence and timely degree attainment, with SSA extending that success to students from the most vulnerable academic and financial backgrounds.

Field of Study Choices

The introduction of proactive, analytics-based advising in Fall 2012 occurred during a period when students' academic pathways were already shifting in response to the broader labor market changes. Compared to pre-advising cohorts, students in the advising era were 2 percentage points more likely to major in computer and information sciences and 3 points less likely to major in health professions – patterns that align with the rapid expansion of technology and professional service jobs at the time. These trends represent aggregate differences across multiple cohorts and should not be interpreted as the solely the result of advising intensity or specific program effects.

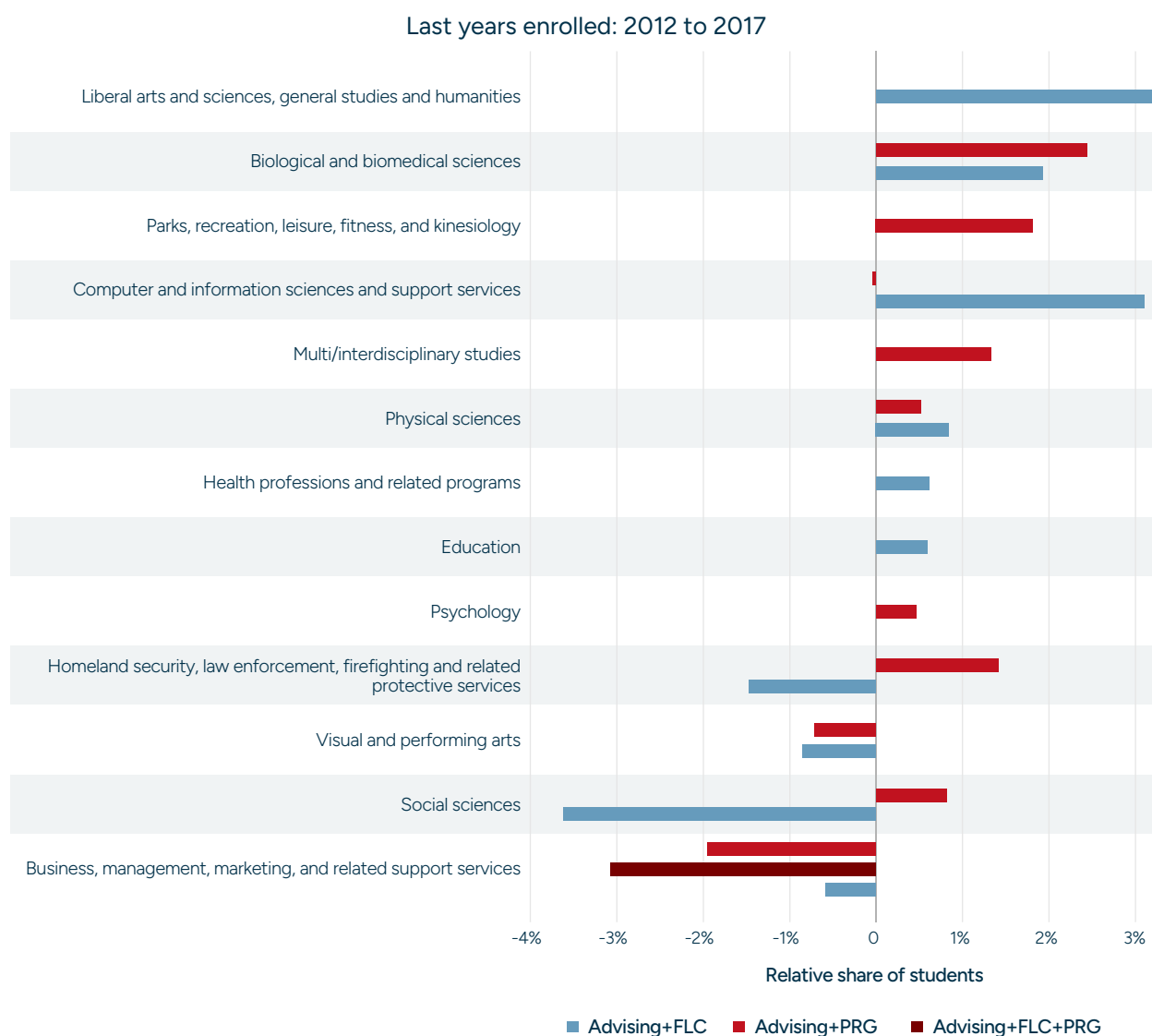
Figure 8: Major Comparison: No Program vs. Advising



Source: Burning Glass Institute

During the advising era, students who participated in program combinations such as advising + FLC or advising + PRG showed major selection patterns that aligned with broader economic trends. These students were roughly 3 percentage points more likely to major in computer science, biology, and other professional fields, and about 2 points less likely to major in business than advising-only peers. These differences reflect cohort-level patterns during a period of steady growth in technical and science-related majors. The structure and peer network provided through Freshman Learning Communities appear especially influential: students in FLCs were more likely to select degree programs that build directly on their meta-major interest area.

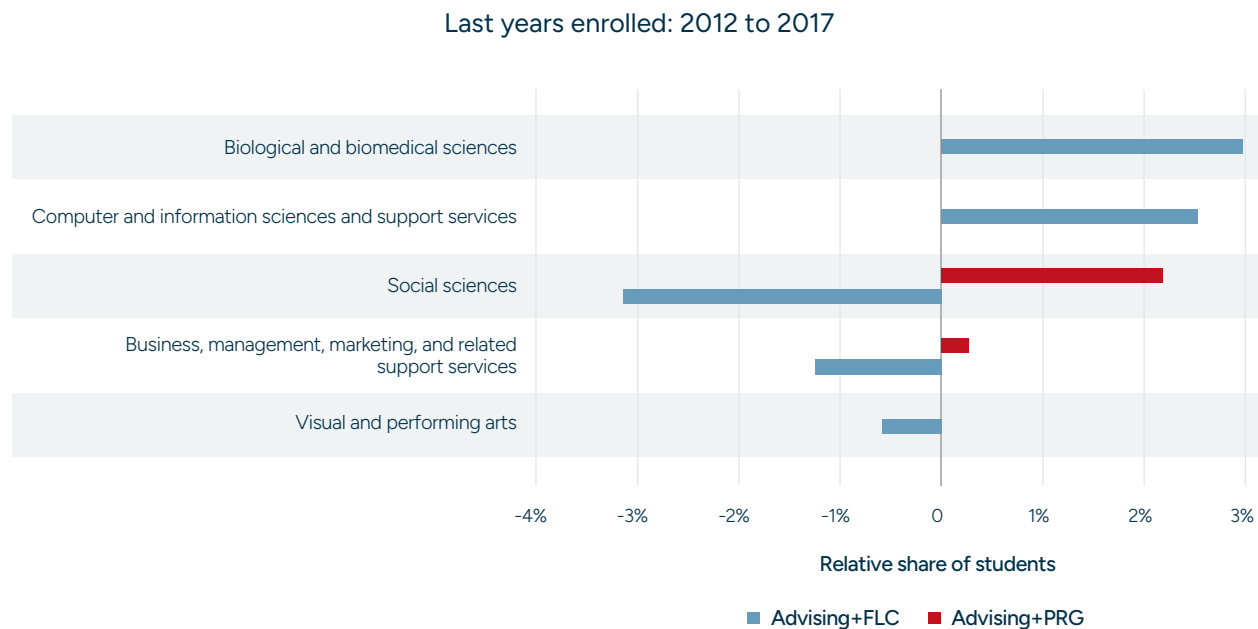
Figure 9: Major Comparison: Advising vs. Advising+



Source: Burning Glass Institute

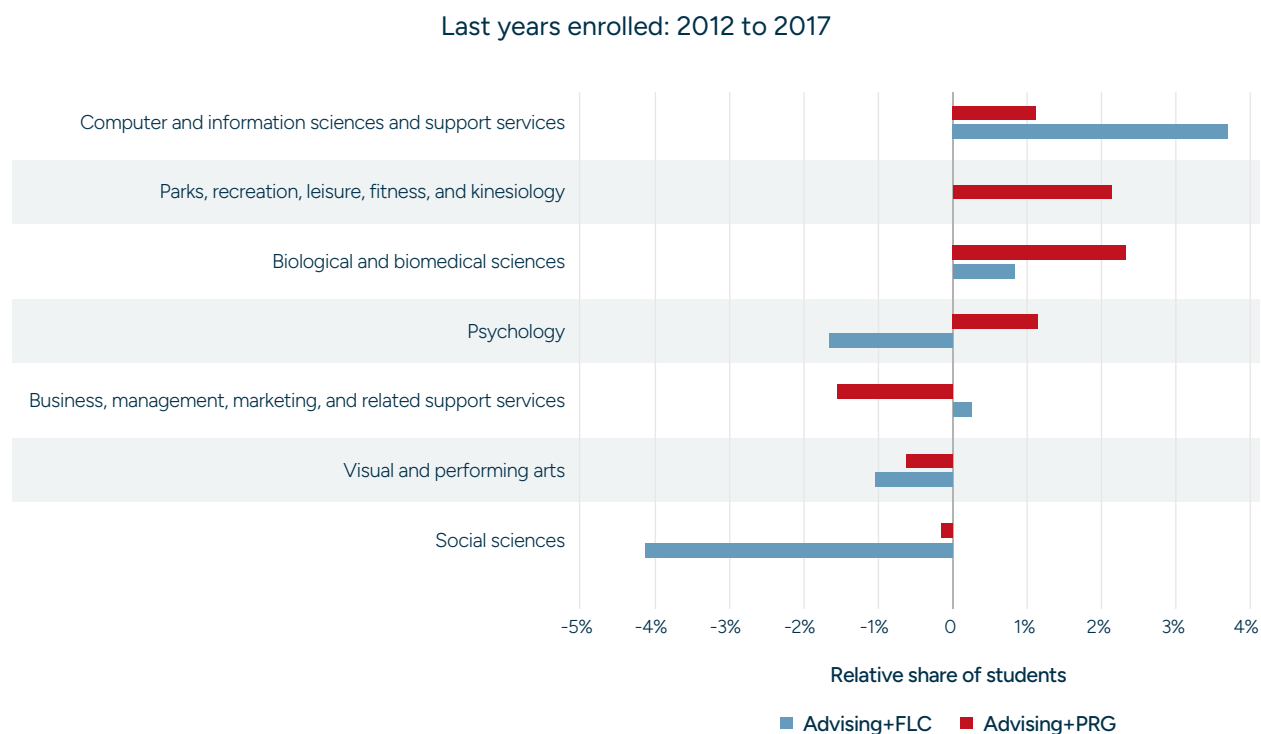
The benefits are particularly pronounced for Pell recipients. Among advising-era Pell students, those who also joined FLCs were nearly 4 percentage points more likely to major in computer and information sciences compared to advising-only peers—an effect about 1.5 points stronger than the corresponding gain for non-Pell FLC participants.

Figure 10: Major Comparison for Non-Pell Students: Advising vs. Advising+



Source: Burning Glass Institute

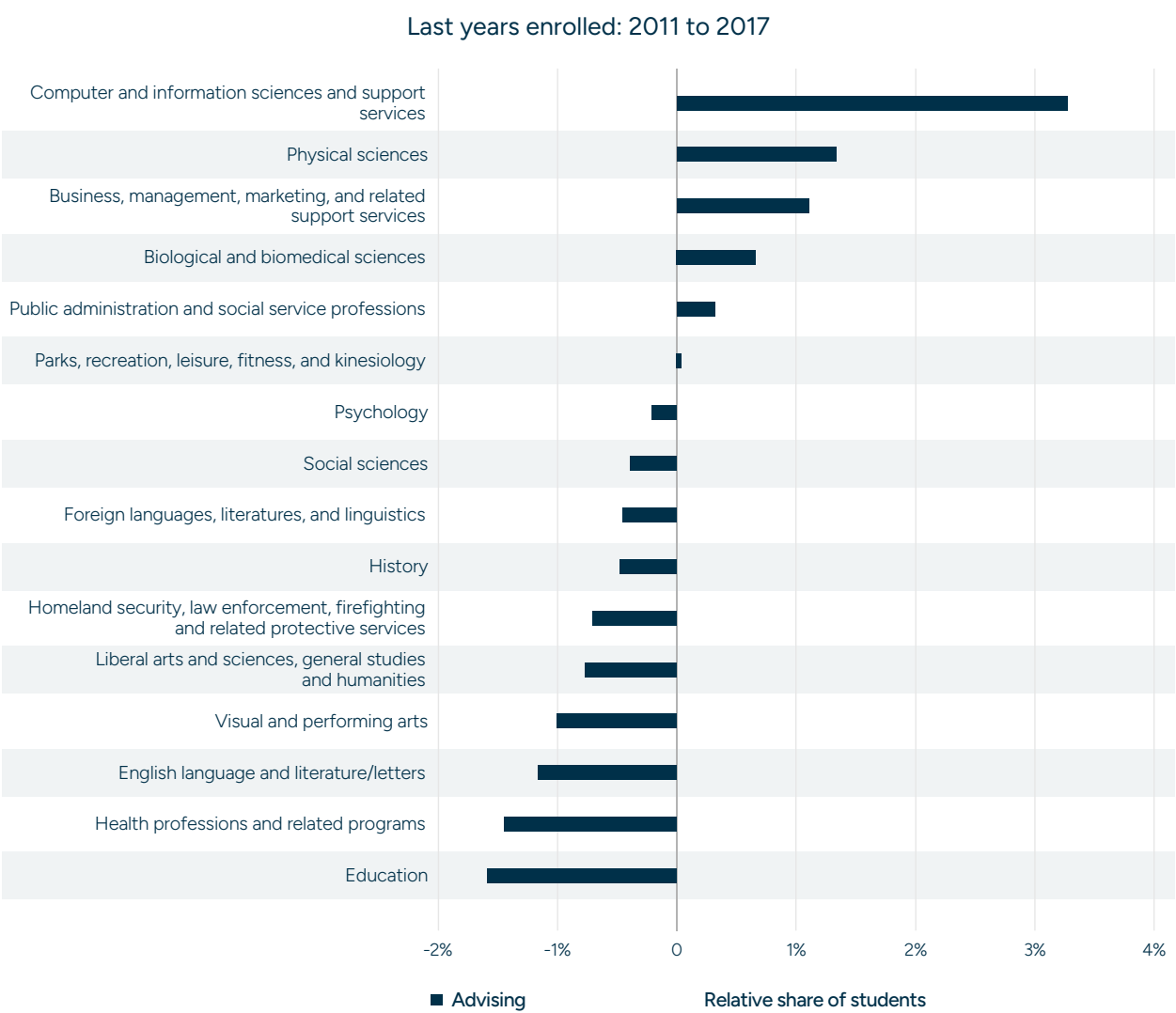
Figure 11: Major Comparison for Pell Recipients: Advising vs. Advising+



Source: Burning Glass Institute

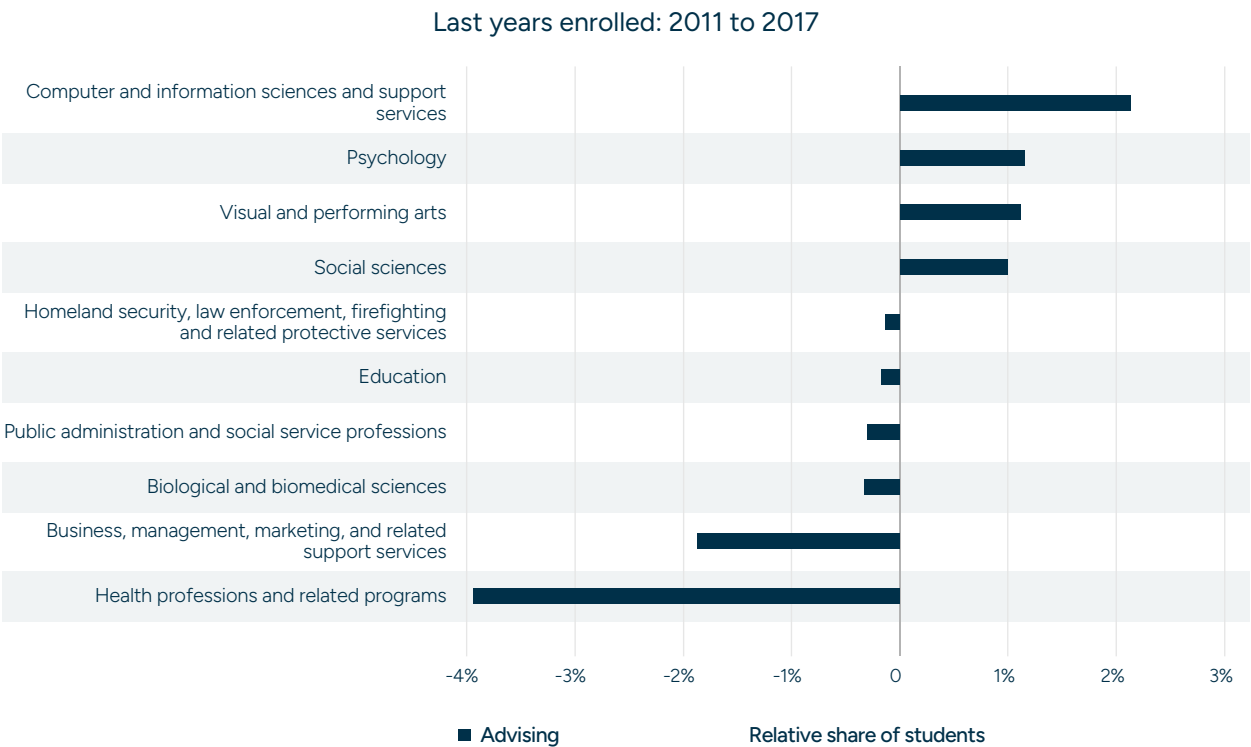
Across the advising-era cohorts, students showed increased entry into business majors, though the size of this shift differed by income background. Non-Pell students selected business programs at rates about 3 percentage points higher than their pre-advising peers, compared with a 2-point increase among Pell recipients. These cohort-level differences suggest that, during a period of growing demand for business degrees nationally, higher-income students may have been somewhat more responsive to those market signals. They also underscore why layered supports can play an important role in helping Pell students navigate access to high-demand fields.

Figure 12: Major Comparison for Non-Pell Students: No Program vs. Advising



Source: Burning Glass Institute

Figure 13: Major Comparison for Pell Recipients: No Program vs. Advising



Source: Burning Glass Institute

Overall, the NISS ecosystem ensures that students not only persist but make purposeful choices that carry them from enrollment to degree, setting the stage for stronger career outcomes after graduation.

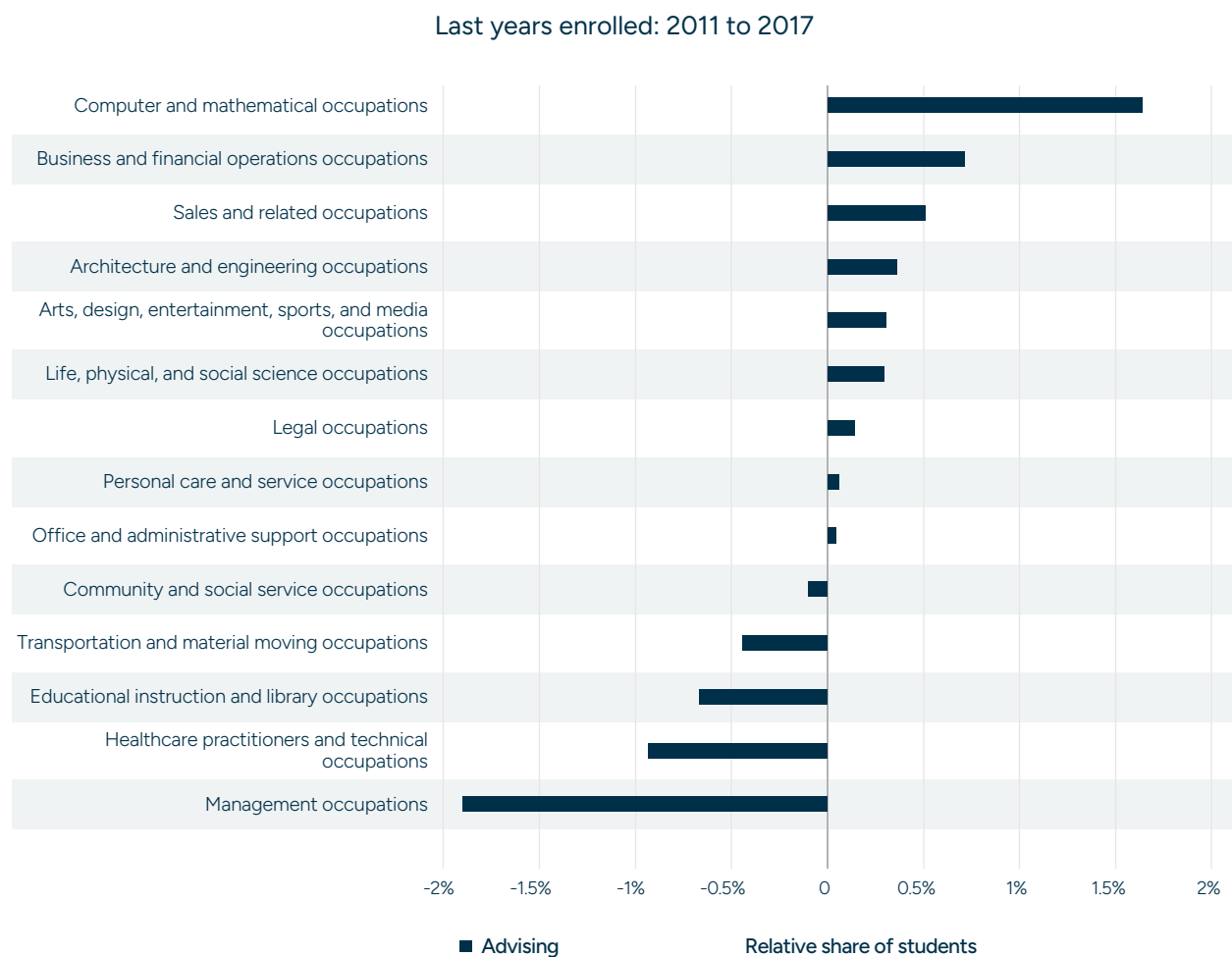
Transition to Work: Launching into the Workforce

As Georgia State graduates enter the labor market, the influence of student success programs remains evident in where students work, the kinds of roles they attain, and how closely their employment aligns with their studies. While underemployment continues to pose challenges across higher education, graduates supported by these proactive and layered interventions are more likely to enter technical, professional, and higher-paying roles than students in the comparison groups.

Occupational Entry

The introduction of proactive, analytics-based advising coincided with a period of shifting post-graduate employment patterns. Relative to earlier cohorts, advising-era graduates were close to 1 percentage point more likely to enter computer and mathematical, business and financial, and scientific occupations, and nearly 2 points less likely to work in management, healthcare, or education. These differences align with broader labor market changes during the period, particularly the growing demand for technical and professional roles, rather than the direct influence of any single institutional intervention.

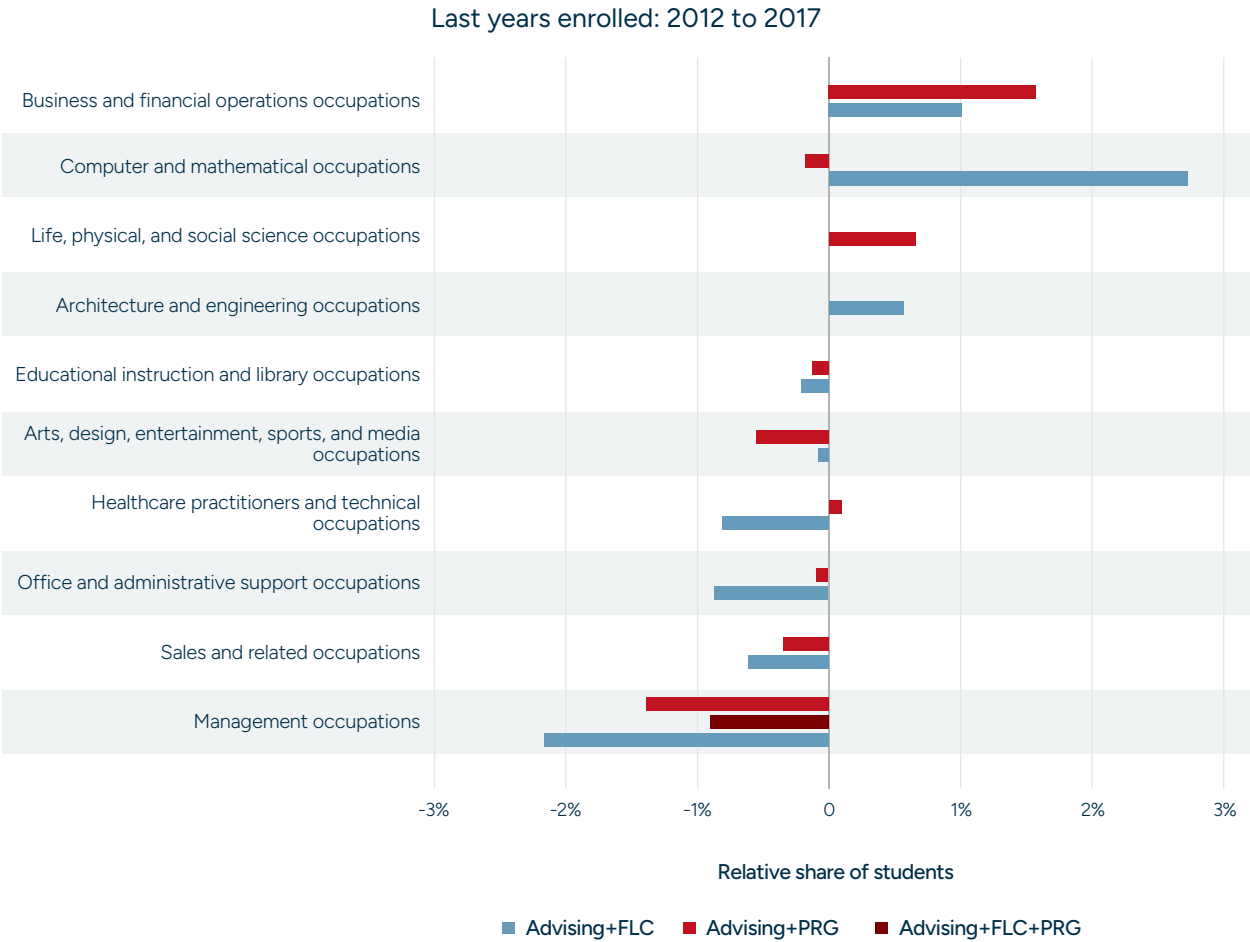
Figure 14: Occupation Comparison: No Program vs. Advising



Source: Burning Glass Institute

When supports are layered, differences become even more pronounced. Graduates who participated in both advising and FLCs were consistently more likely to enter computer and mathematical occupations (nearly 3 percentage points), while those combining advising and PRGs show stronger representation in business and finance roles (almost 2 points). Both groups are between about 1-2 percentage points less likely to begin their careers in management immediately after graduation, reflecting a tendency to start in specialized technical or professional roles before advancing into leadership. These patterns reinforce that structured academic and financial supports not only promote completion but also influence the types of early-career opportunities students pursue.

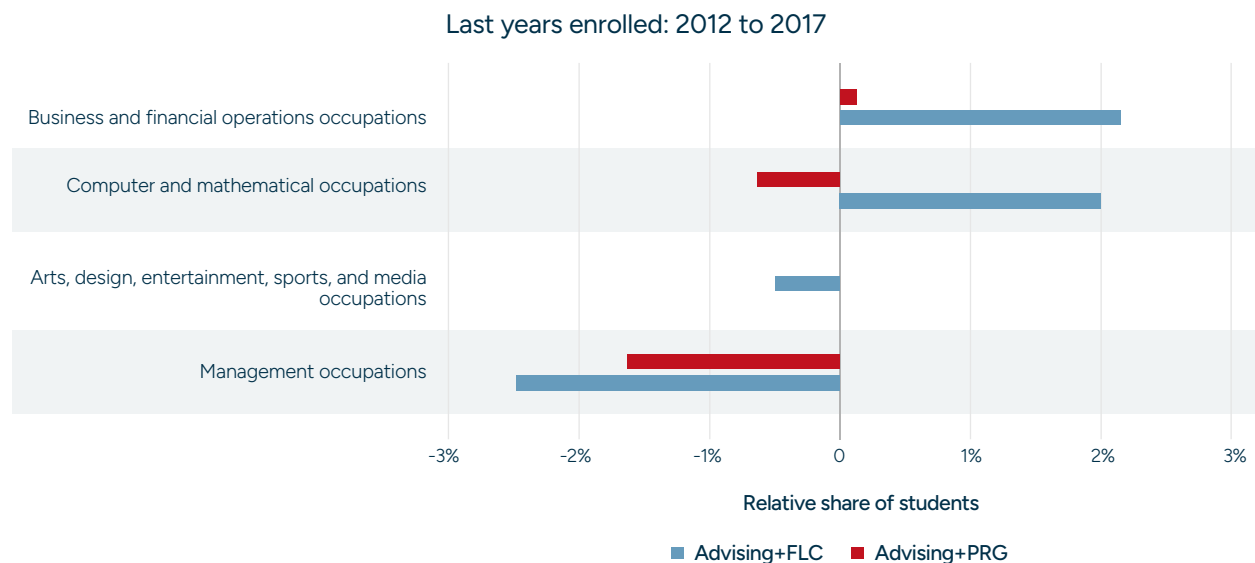
Figure 15: Occupation Comparison: Advising vs. Advising+



Source: Burning Glass Institute

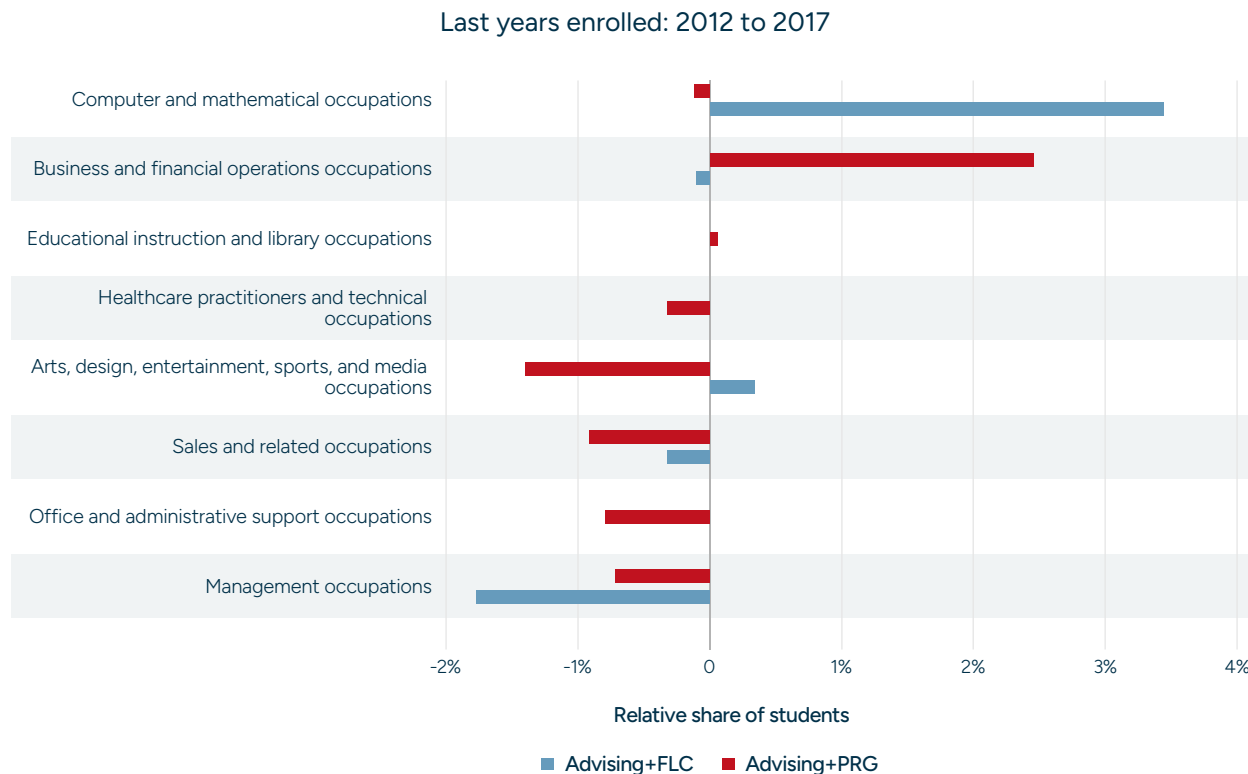
The effects of layering supports are especially meaningful for Pell recipients, who show larger relative gains in high-skill occupations than their non-Pell peers. For Pell recipients, adding FLC participation to advising was associated with a notable shift toward computer and mathematical occupations: their likelihood of entering those fields rose by more than 3 percentage points, a larger increase than the roughly 2 percentage point gain observed among non-Pell advising and FLC participants. Similarly, Pell recipients who received both advising and PRG support show heightened representation in business roles, by about 2.5 percentage points. These findings indicate that layered program participation can narrow opportunity gaps by helping lower-income students access the most in-demand career pathways.

Figure 16: Occupation Comparison for Non-Pell Students: Advising vs. Advising+



Source: Burning Glass Institute

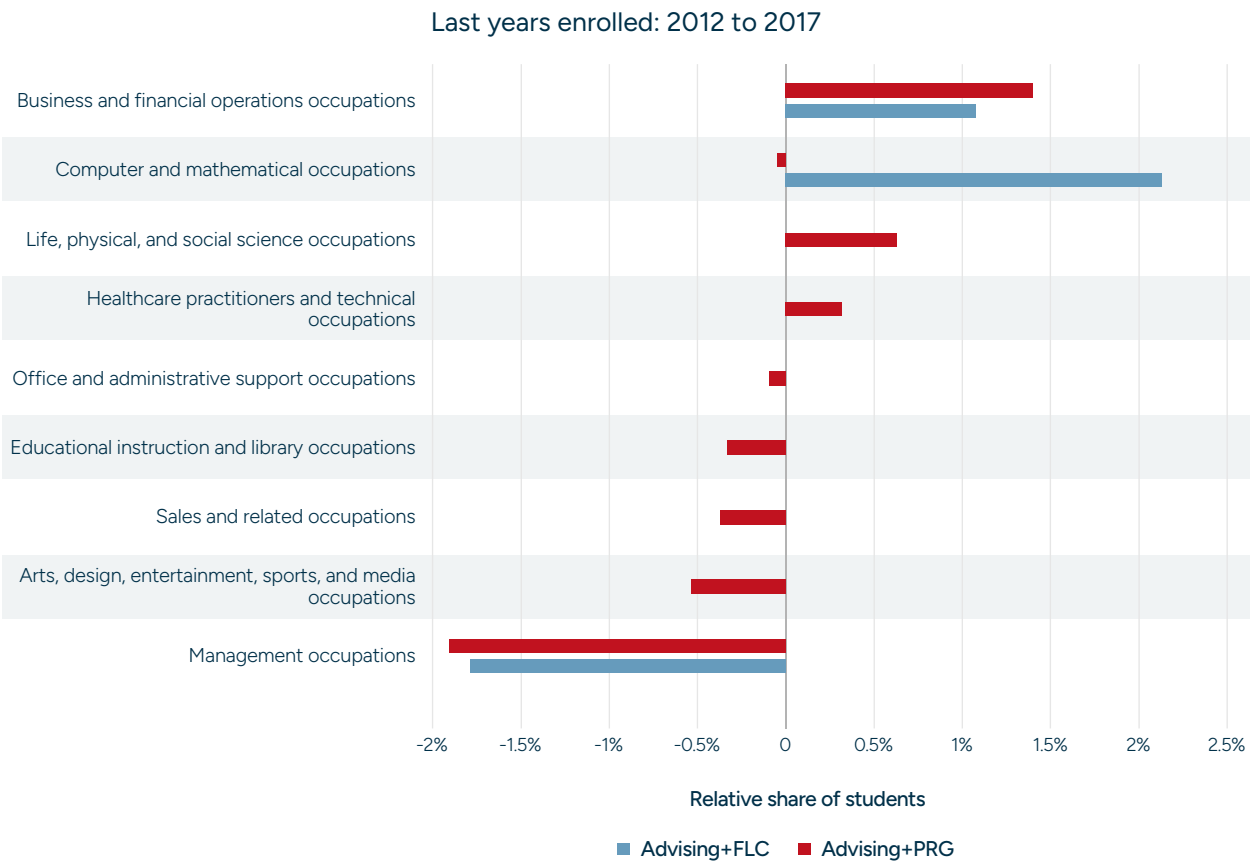
Figure 17: Occupation Comparison for Pell Recipients: Advising vs. Advising+



Source: Burning Glass Institute

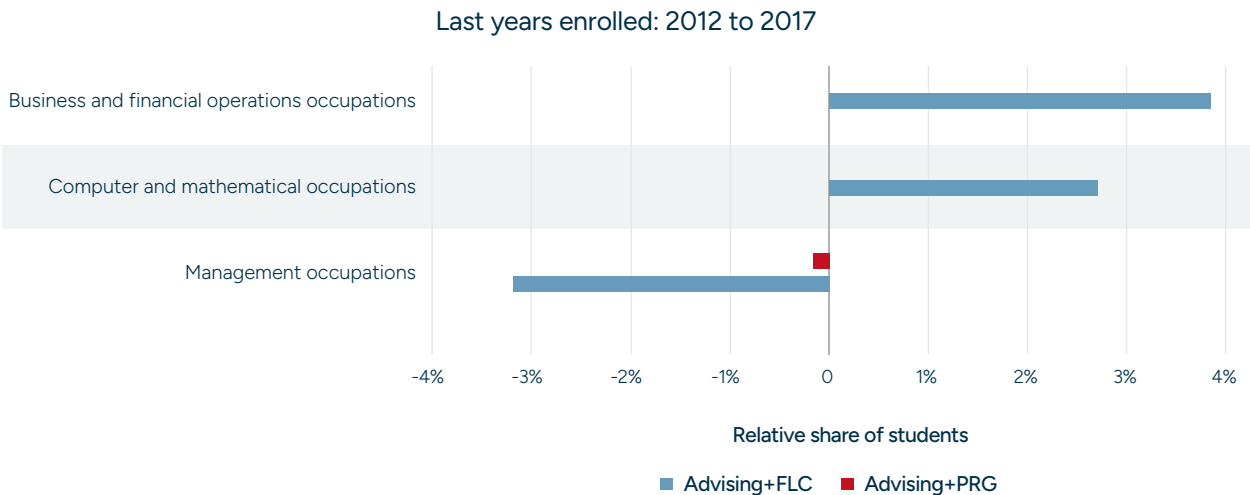
Across student subgroups, advising-era graduates show patterns of early job entry that mirror the broader labor market shifts of the period. For students in an FLC on top of advising, graduates during the advising era were about 2 percentage points more likely to work in computer and mathematical roles and 1 point more likely to enter business occupations. Graduates who received a PRG on top of advising were less likely to find employment in management occupations (almost 2 points), as well as media, sales, and education. By contrast, stop-outs (some of whom received limited advising exposure but did not complete their degrees) are more frequently found in business and financial roles (nearly 4 points) and less represented in management (3 points), underscoring how degree completion remains a key factor in accessing higher-paying, specialized work.

Figure 18: Occupation Comparison for GSU Grads: Advising vs. Advising+



Source: Burning Glass Institute

Figure 19: Occupation Comparison for Stop Outs: Advising vs. Advising+



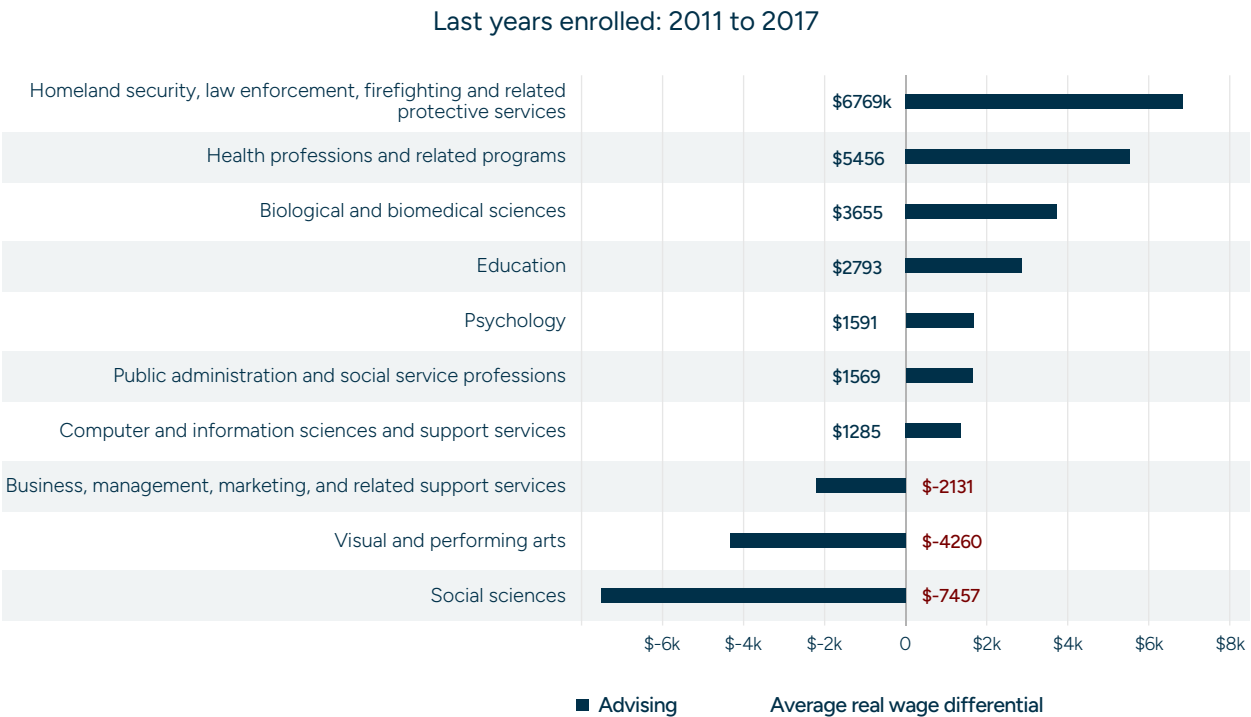
Source: Burning Glass Institute

Initial Wage Patterns

Five years after graduation, wage outcomes show that GSU’s advising-era graduates generally experience modest but measurable advantages in fields aligned with growing labor market demand, even as disparities persist across majors and student groups.

Across all students, advising corresponds with higher earnings in health-related and technical fields, offset by lower returns in social sciences and the arts. Graduates who received proactive advising earn about \$6,000 more in health professions and \$7,000 more in security-related occupations than comparable peers from pre-advising cohorts, while wages in social science and the arts trail by between \$4,000 and \$8,000. These patterns mirror broader national trends, where expanding healthcare and STEM sectors drive wage growth, while social service and arts-related fields have seen slower gains.

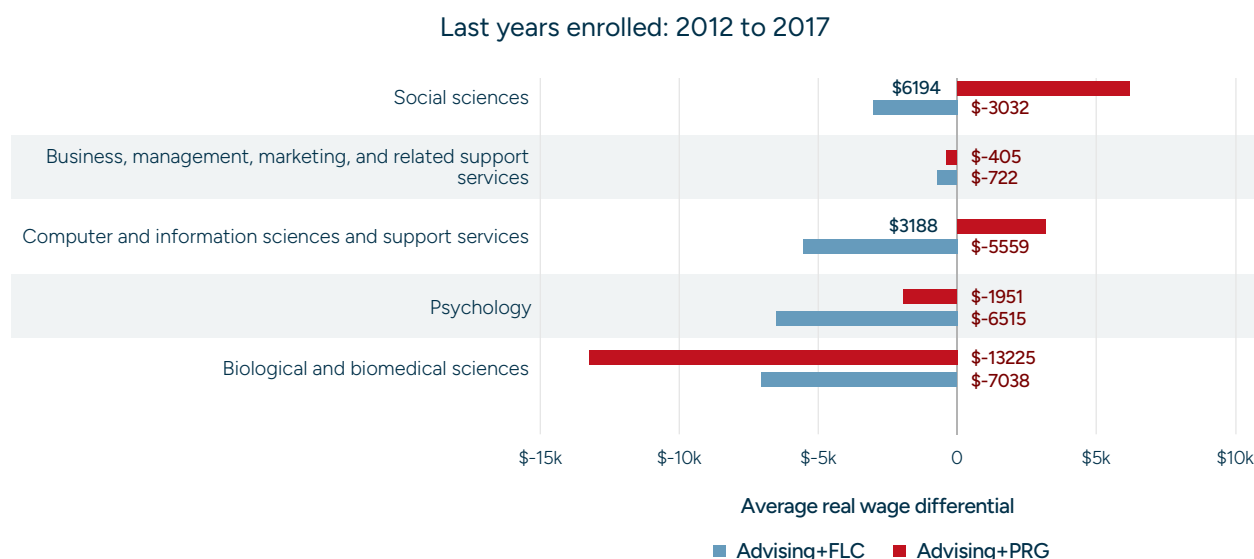
Figure 20: Major Wage Comparison (5th Year): No Program vs. Advising



Source: Burning Glass Institute

When programs are layered, differences become more nuanced. Advising-era students in FLCs tend to earn slightly less – typically \$1,000 to \$7,000 below their advising-only peers five years after graduation – across majors such as business, biology, psychology, and computer science. These findings likely reflect unobserved factors: FLC students may pursue additional education or enter delayed-entry fields, such as graduate programs and healthcare, which may temporarily depress early wages.

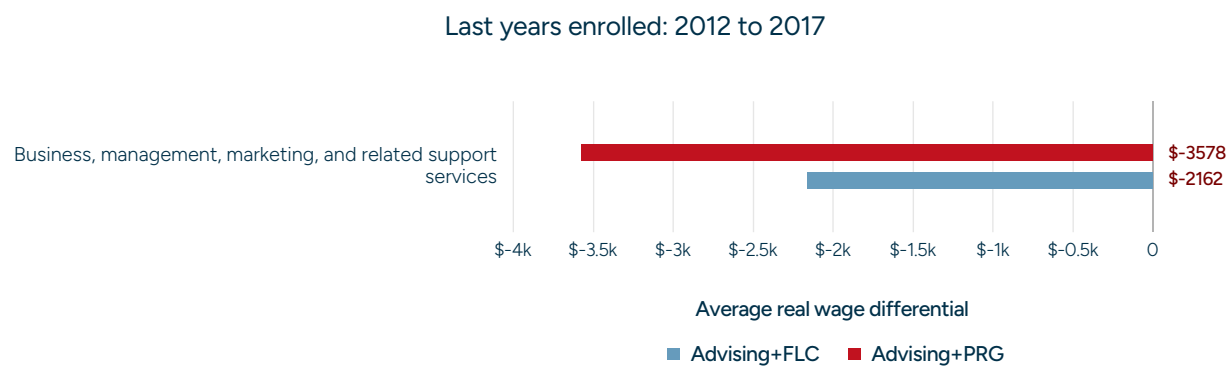
Figure 21: Major Wage Comparison (5th Year): Advising vs. Advising+



Source: Burning Glass Institute

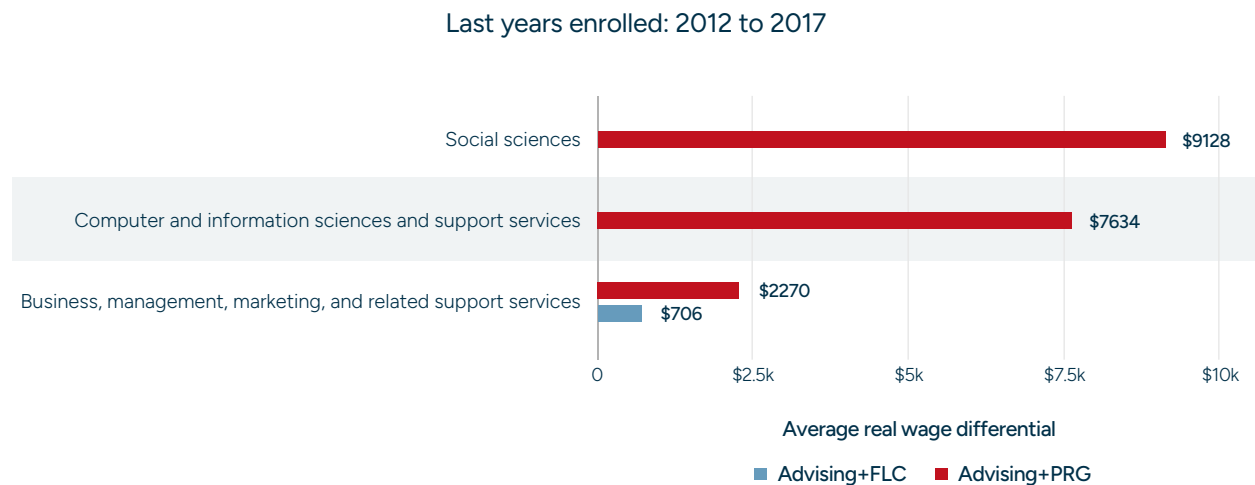
By contrast, layering PRG on top of advising is linked to higher earnings, especially for lower-income students. Pell recipients who received both PRG and advising support earn \$8,000–\$9,000 more than comparable peers without PRG support, particularly in social science and computer science fields. Among non-Pell students, business majors with PRG support see smaller or even negative wage differentials – about \$2,000–\$4,000 less.

Figure 22: Major Wage Comparison (5th Year) for Non-Pell Students: Advising vs. Advising+



Source: Burning Glass Institute

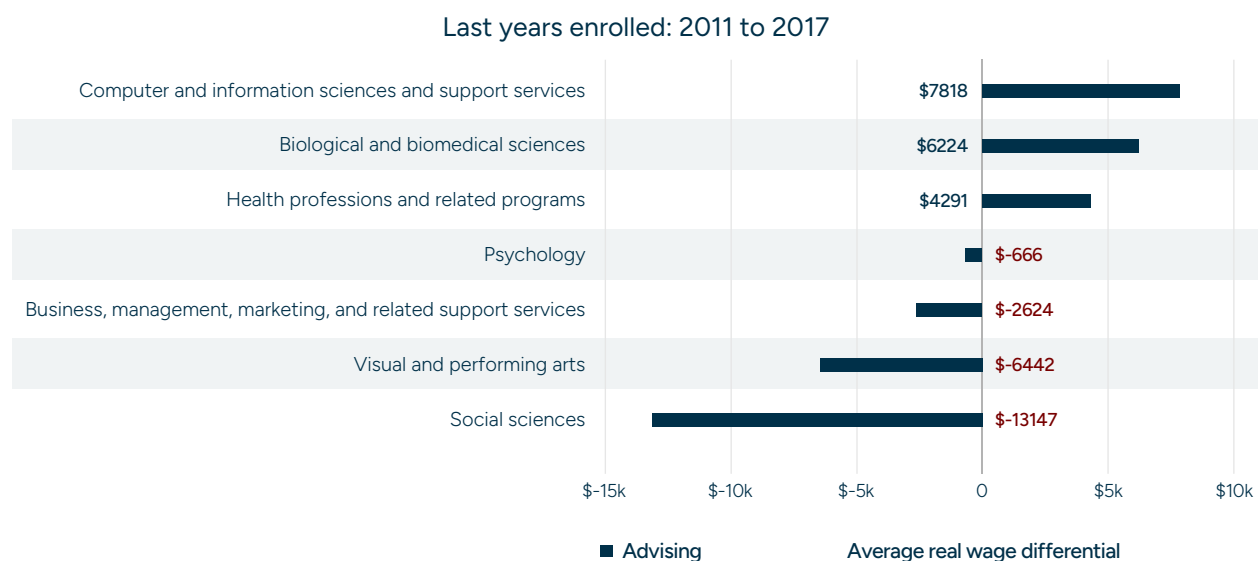
Figure 23: Major Wage Comparison (5th Year) for Pell Recipients: Advising vs. Advising+



Source: Burning Glass Institute

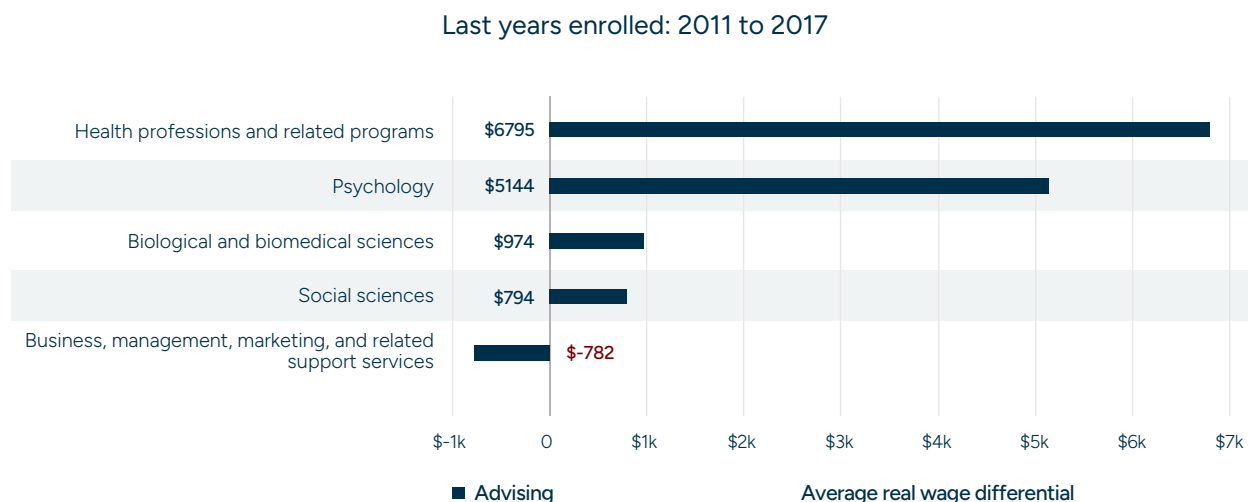
The advising effect is also stronger for Pell recipients overall, who saw \$5,000-\$7,000 gains in health and psychology compared to pre-advising cohorts. Non-Pell students in health as well as computer science and biology also earned more than pre-advising students. Taken together, these results suggest that while NISS advising and microgrant initiatives elevate earnings for graduates across disciplines, they are especially powerful equalizers for students from lower-income backgrounds, helping to narrow early-career wage gaps.

Figure 24: Major Wage Comparison (5th Year) for Non-Pell: No Program vs. Advising



Source: Burning Glass Institute

Figure 25: Major Wage Comparison (5th Year) for Pell: No Program vs. Advising



Source: Burning Glass Institute

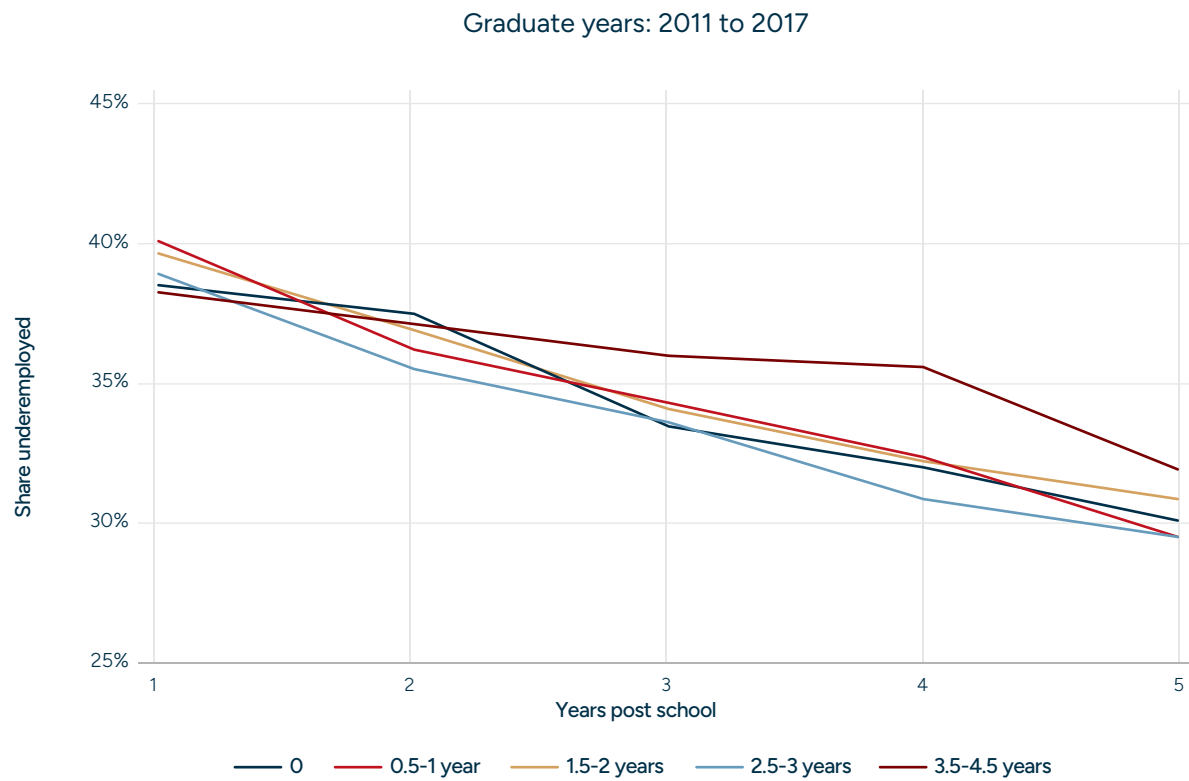
Underemployment

Underemployment among recent college graduates is a persistent national challenge, even in strong labor markets. National evidence suggests that 52% of bachelor's degree holders are underemployed one year after graduation, with elevated rates persisting well into mid-career.

Despite the gains in persistence and career alignment associated with NISS interventions, underemployment remains a challenge for graduates in their first year after completing a degree – though at levels substantially lower than national benchmarks. Across all cohorts and program combinations, roughly 38% of graduates are underemployed one year after graduation, a rate that has remained remarkably consistent even as new interventions have been introduced and scaled.

Advising-era data show little variation in underemployment by duration of advising exposure. Whether students received two or four years of proactive advising, nearly four in ten graduates were employed in roles below their degree level in the year following graduation. Outcomes were slightly worse for students who only received a single year of advising – typically occurring late in their academic career – suggesting that late-stage exposure offers limited benefit.

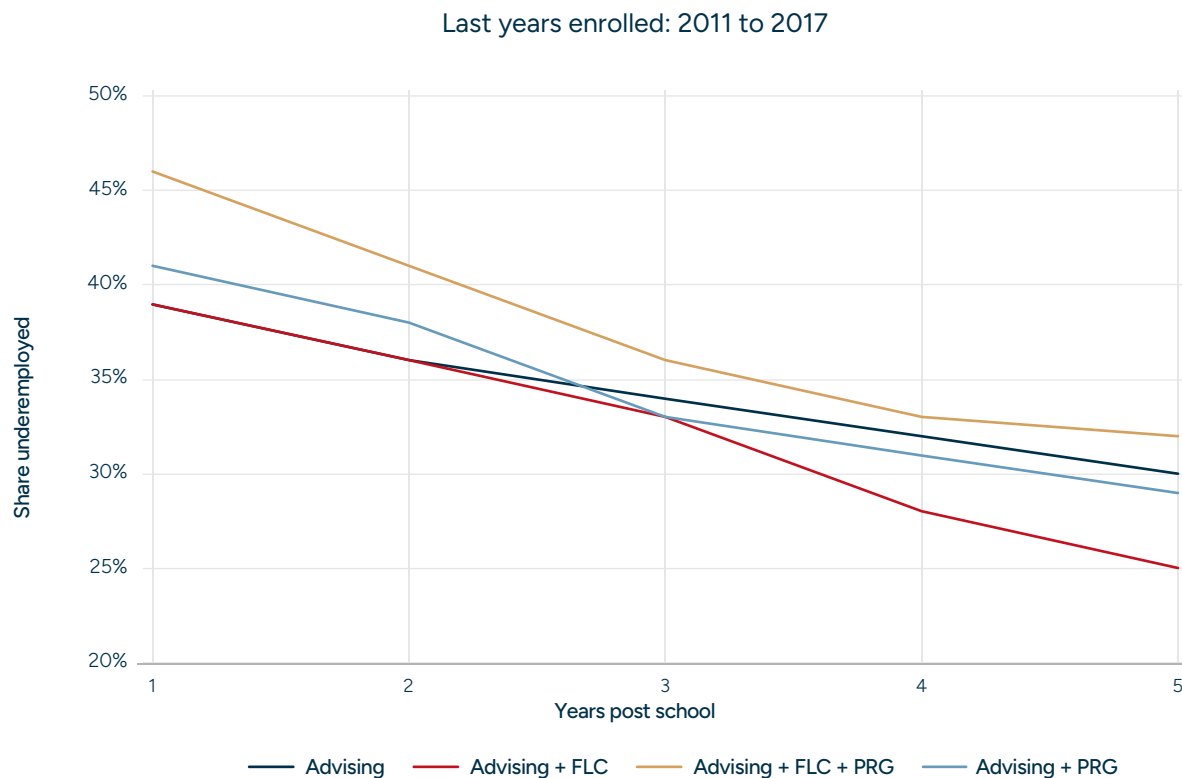
Figure 26: Underemployment in Years Following Graduation: No Program vs. Advising Intensity



Source: Burning Glass Institute

Layering additional supports on top of advising does not appear to meaningfully reduce early underemployment. Graduates who participated in advising + PRG or advising + FLC + PRG combinations were more likely to be underemployed one year after graduation compared to those who received advising alone, approaching 45%. Students in the general advising population and those simply in the advising + FLC cohorts showed nearly identical rates of roughly 38%. These similarities suggest that the drivers of underemployment are less about program participation and more about structural factors in the labor market, such as regional job availability, occupational entry barriers, or timing of job search after graduation.

Figure 27: Underemployment in Years Following Graduation: Advising vs. Advising+



Source: Burning Glass Institute

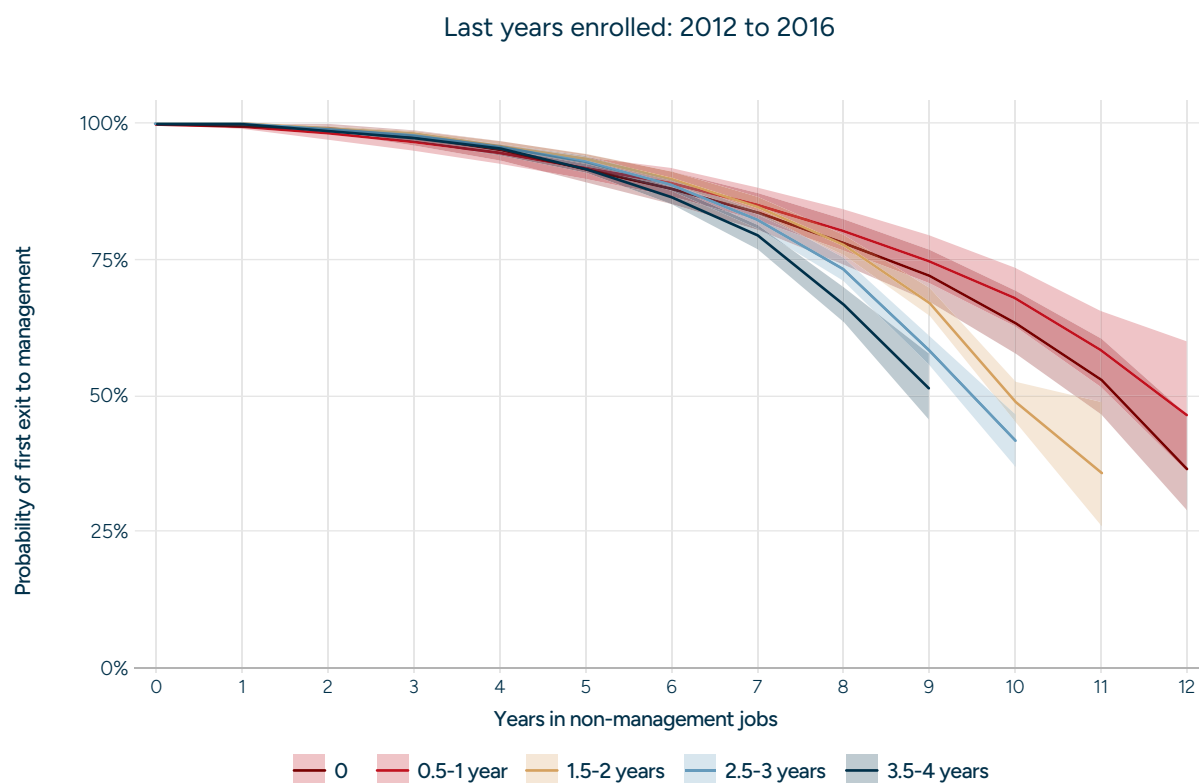
Overall, NISS interventions appear to shift the early career landscape for graduates, steering them toward professional and technical fields and improving initial earnings, especially among students from lower-income backgrounds. At the same time, underemployment remains prevalent across all groups, suggesting that while these interventions prepare students to launch into the workforce, broader labor market forces continue to constrain many graduates' early career opportunities.

Career Progression: Sustaining Success in the Labor Market

Advancement into Management and Executive Roles

The relationship between proactive and leadership advancement follows a clear “dose-response” pattern. Graduates with three to four years of advising are more likely to have entered management than peers with minimal or no advising exposure – 27% students with four years of advising entered management positions after 8 years compared to just 13% without any advising exposure. While the effect is gradual and likely influenced by broader economic cycles, the pattern underscores that sustained engagement with advisors helps students make academic and professional choices that translate into quicker progression within the labor market.

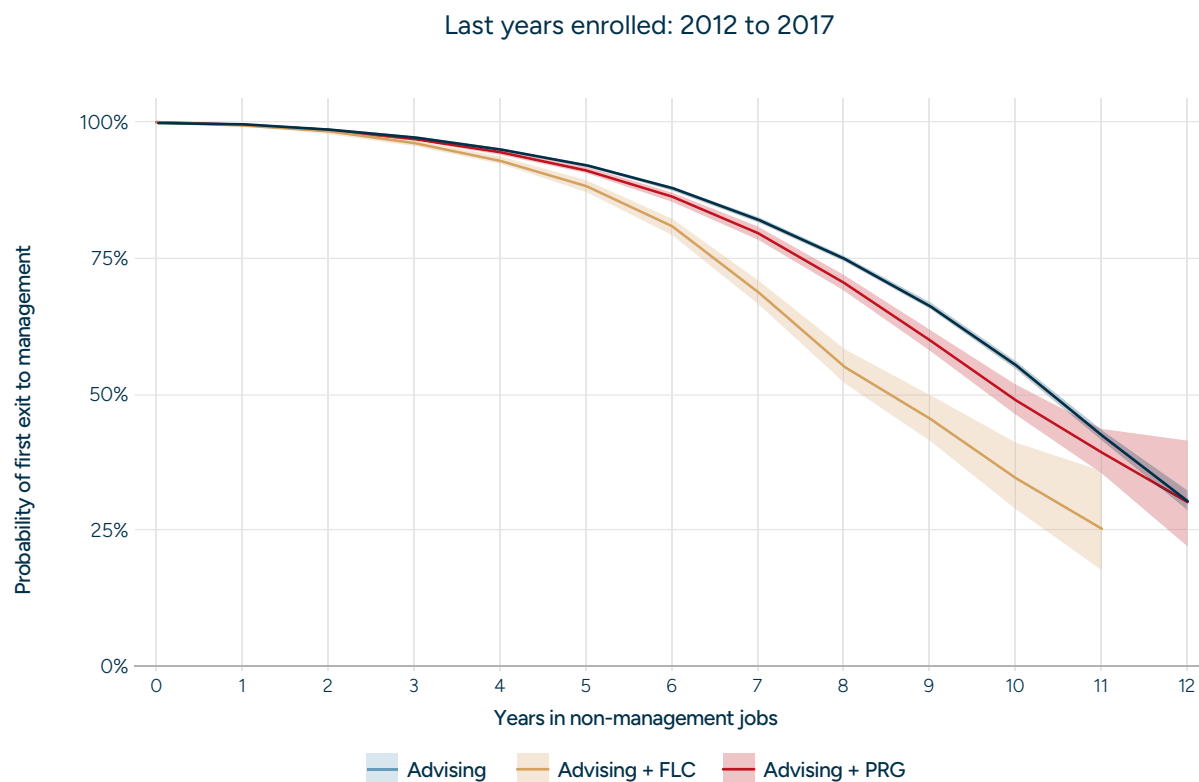
Figure 28: Hazard Curve: Time to First Exit to Management After Graduation by Years of Advising



Source: Burning Glass Institute

Layering additional supports on top of advising also shapes the timing of career advancement. Students who participated in FLCs transition into management positions the fastest, followed closely by those with PRGs layered on advising. FLC participants are somewhat less likely to begin their careers in management immediately following graduation, but they close that gap quickly, catching up to or surpassing their peers within the first decade of employment. This suggests that the structured cohort experience of FLCs may build career readiness and persistence that pays off over time.

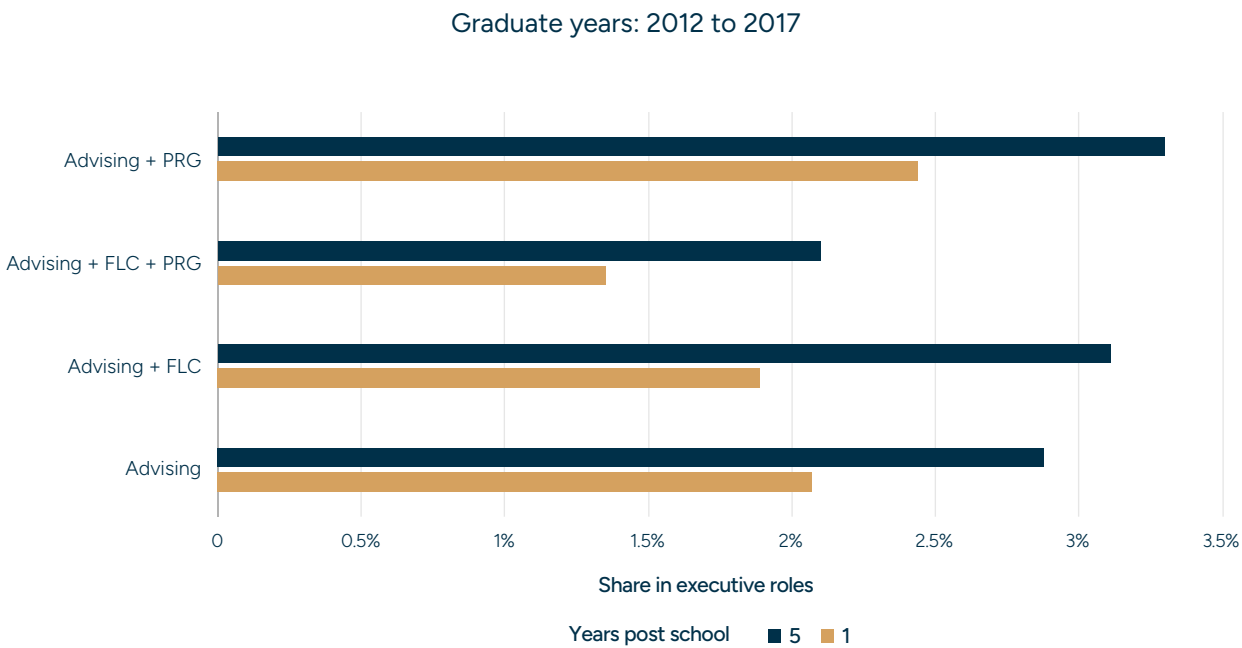
Figure 29: Hazard Curve: Time to First Exit to Management After Graduation: Advising vs. Advising+



Source: Burning Glass Institute

Meanwhile, PRG recipients appear to experience an early leadership boost. Within one year of graduation, almost 2.5% of students who received both PRG and advising support hold executive roles, compared to roughly 2% among advising-only peers. By year five, that share rises to just over 3% for students with that layered support, narrowing the initial gap but still suggesting an early advantage. The pattern supports the idea that PRGs act as a “leadership flywheel,” allowing students to enter the workforce on time and with greater financial stability – advantages that can compound early in a career. However, students in cohorts receiving three layered supports are less likely to hold executive roles within both one and five years after graduation.

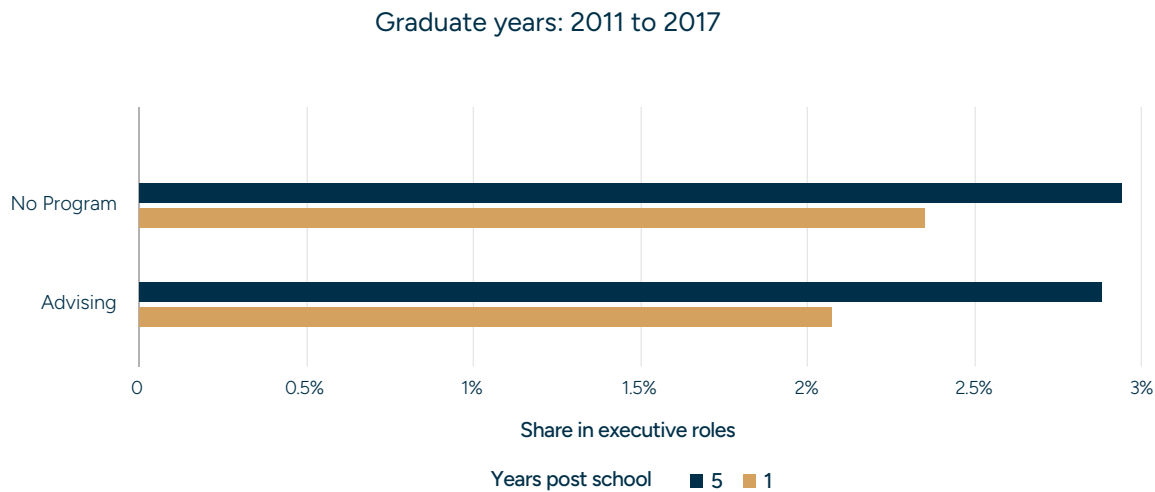
Figure 30: Share in Executive Roles by Program (Years 1 and 5): Advising vs. Advising+



Source: Burning Glass Institute

Interestingly, advising-era graduates took longer to reach executive-level roles compared to students in the pre-advising era. Students graduating before the introduction of proactive advising were more likely to hold executive roles at both one and five years after graduation. This finding likely reflects the combined influence of institutional change and broader labor market dynamics during the early 2010s.

Figure 31: Share in Executive Roles by Program (Years 1 and 5): No Program vs. Advising



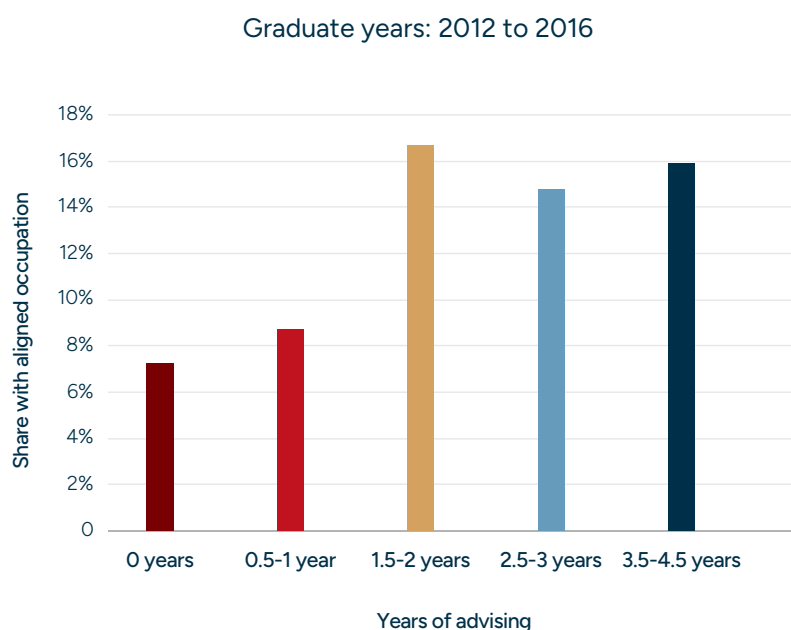
Source: Burning Glass Institute

Degree-Occupation Alignment

As students progress further into their careers, patterns of degree-occupation alignment – how closely graduates’ jobs correspond to their fields of study – reveal how sustained support during college continues to influence outcomes well beyond graduation. Layered NISS interventions and advising appear to strengthen alignment early in graduates’ careers and, for certain groups, sustain that advantage over time.

Graduates who received longer exposure to proactive advising were markedly more likely to begin their careers in occupations aligned with their degree field. Among students with 1.5 years or more of advising, about 15-17% were employed in an aligned occupation one year after graduation – roughly double the rate of students with little or no advising (7-8%). The relationship follows a clear cumulative pattern: as advising exposure increases, alignment broadly improves. This “dose effect” suggests that a sustained connection with advisors not only helps students persist toward graduation but also supports them in translating academic pathways into career-relevant employment.

Figure 32: Degree-Occupation Alignment 1 Year Post Graduation by Advising Intensity



Source: Burning Glass Institute

When intervention programs are layered, effects diverge by student background. Pell recipients generally show lower average alignment than non-Pell peers, reflecting well-documented disparities in access to degree-relevant employment. Yet, among Pell students who received three layers of support – advising + FLC + PRG – alignment exceeds 17% between years three and six after graduation, outpacing even their non-Pell counterparts. These results underscore the value of multi-faceted, sustained interventions for students facing the steepest barriers to opportunity.

Figure 33: Degree-Occupation Alignment for Non-Pell Student: Advising vs. Advising+

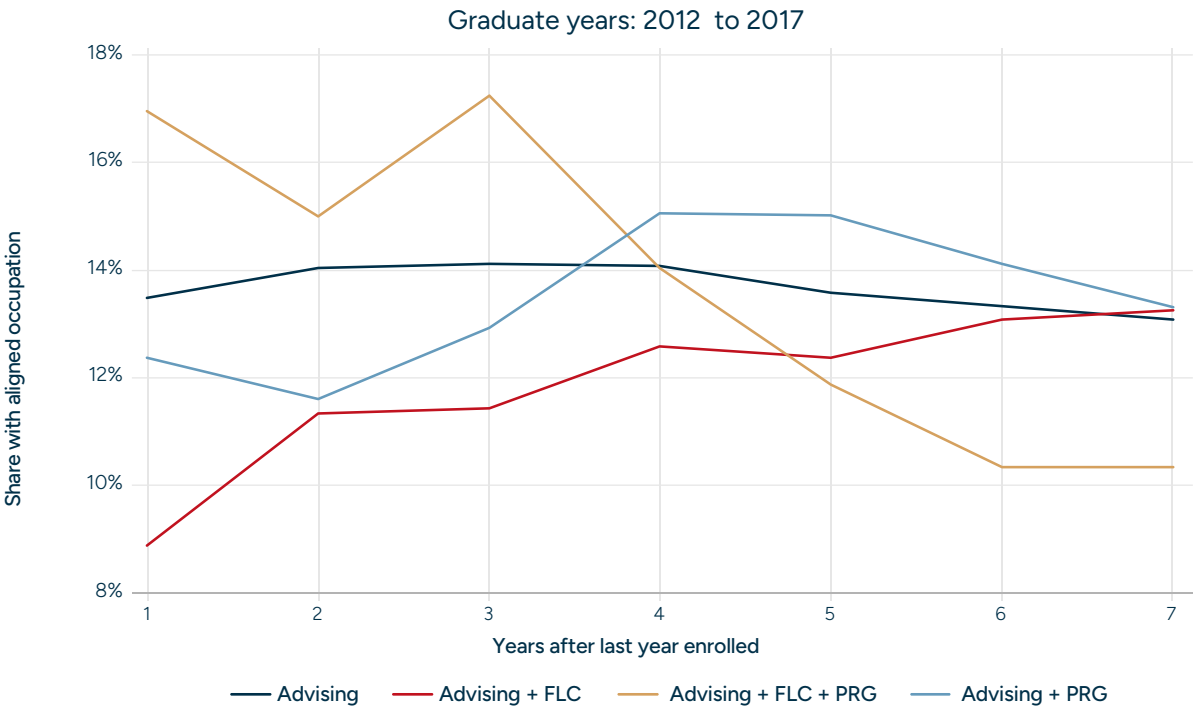
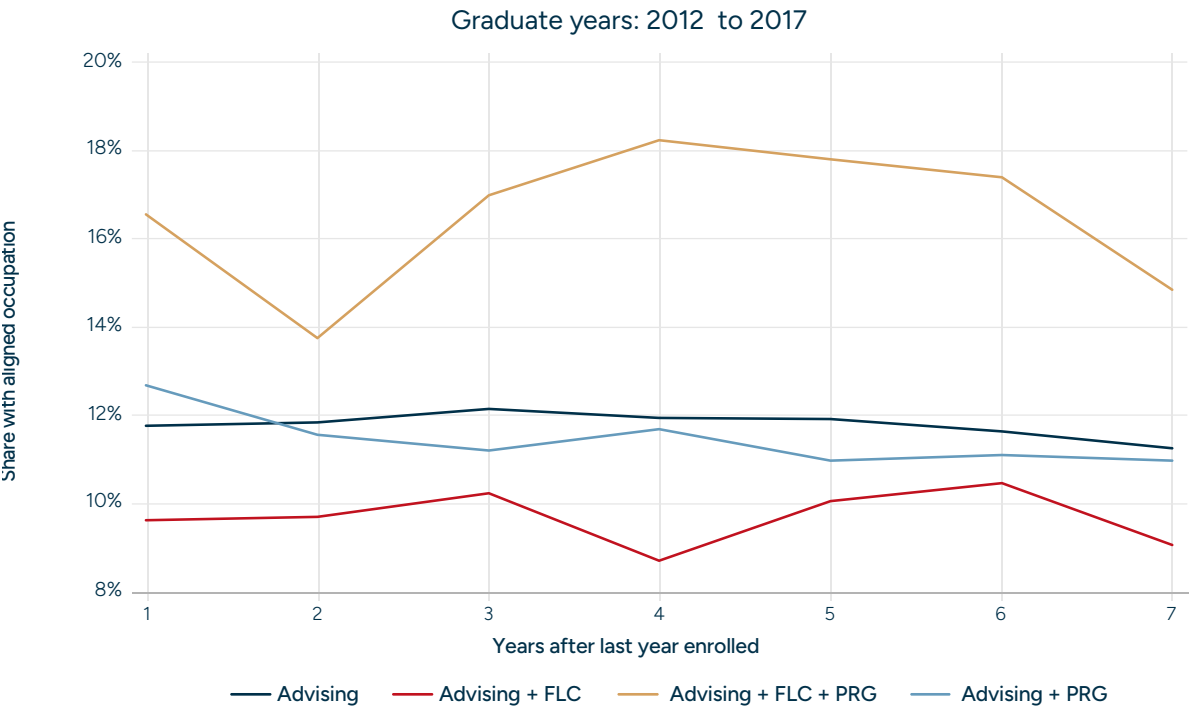
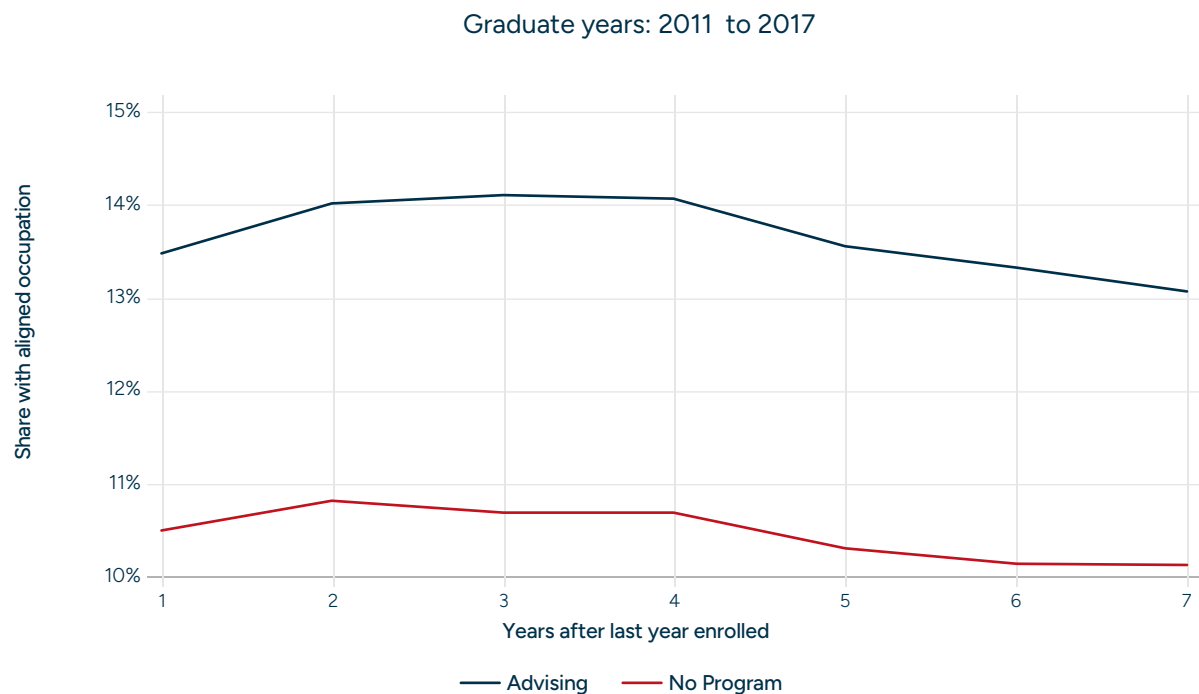


Figure 34: Degree-Occupation Alignment for Pell Recipients: Advising vs. Advising+



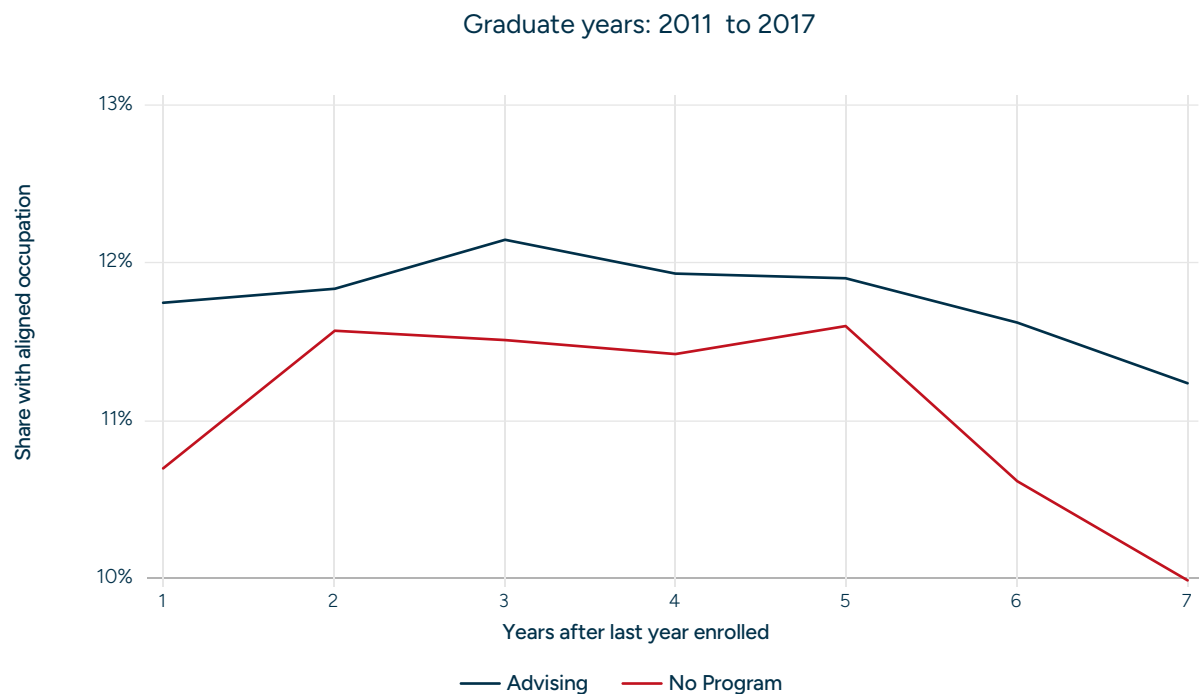
At the same time, advising improves alignment across all students compared to those in the pre-advising era, though the persistence of that alignment varies. For non-Pell students, alignment rises modestly and then stabilizes around 14% through the first four years after graduation. For Pell students, alignment gains are smaller and more variable, but still represent a marked improvement over earlier cohorts, whose degree-occupation alignment rates declined sharply after year five. The data suggest that while proactive advising narrows the equity gap, the most durable alignment gains for lower-income students occur when financial and structural supports are layered alongside advising.

Figure 35: Degree-Occupation Alignment for Non-Pell Students: No Program vs. Advising



Source: Burning Glass Institute

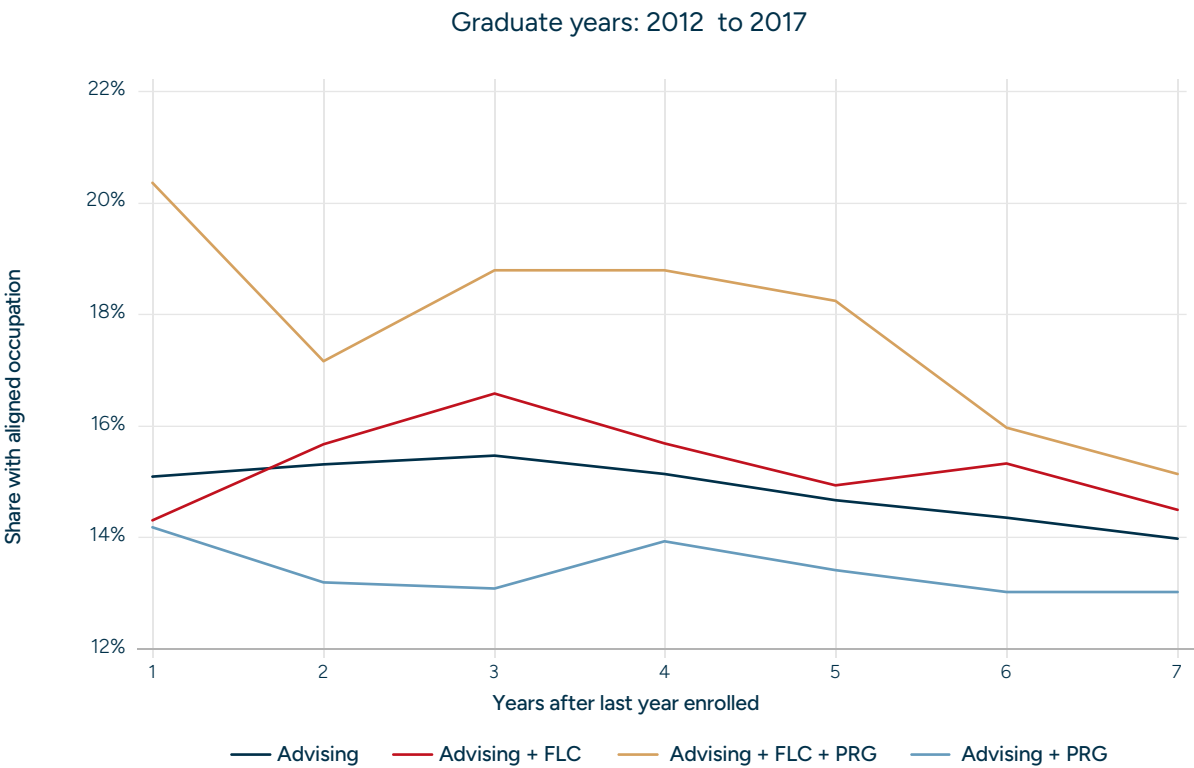
Figure 36: Degree-Occupation Alignment for Pell Recipients: No Program vs. Advising



Source: Burning Glass Institute

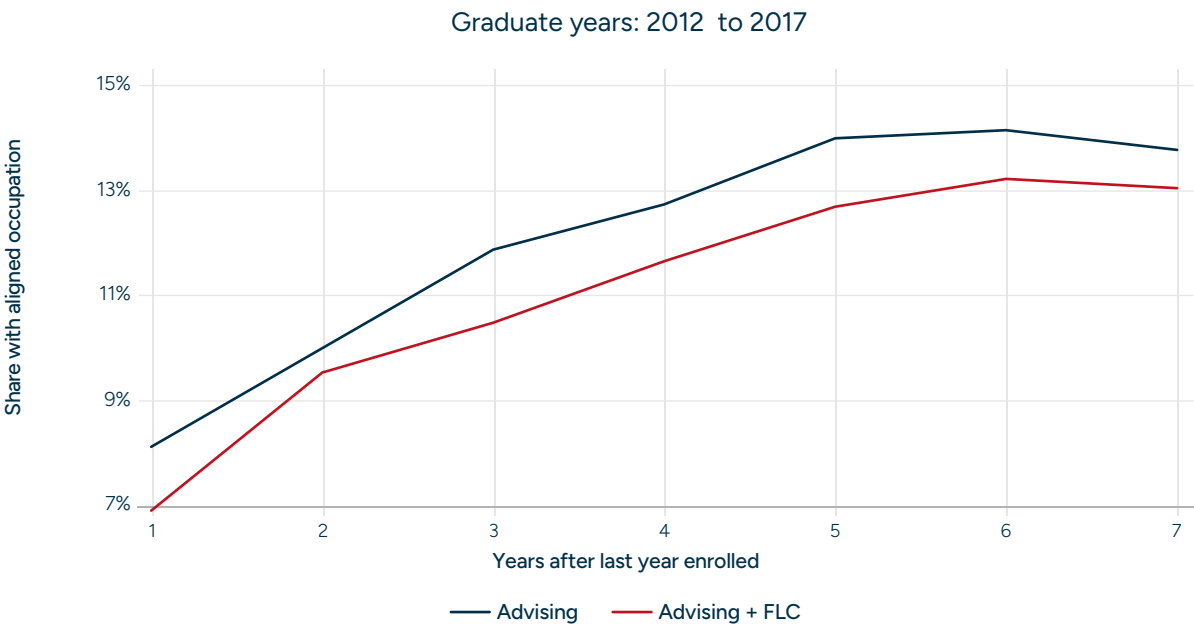
Comparing outcomes by student type reveals additional nuances. Among GSU graduates, students who received a triple-layered support (advising + FLC + PRG) see the highest degree-occupation alignment, beginning at over 20% at year 1 and reaching a relative plateau of just over 18% around 4 years after graduation. Other intervention groups among GSU graduates see variable alignment, with a broad average of 15%. In contrast, transfer graduates show steadily increasing alignment over time across advising and advising + FLC cohorts, reaching 12-13% by five years after graduation.

Figure 37: Degree-Occupation Alignment for GSU Grads: Advising vs. Advising+



Source: Burning Glass Institute

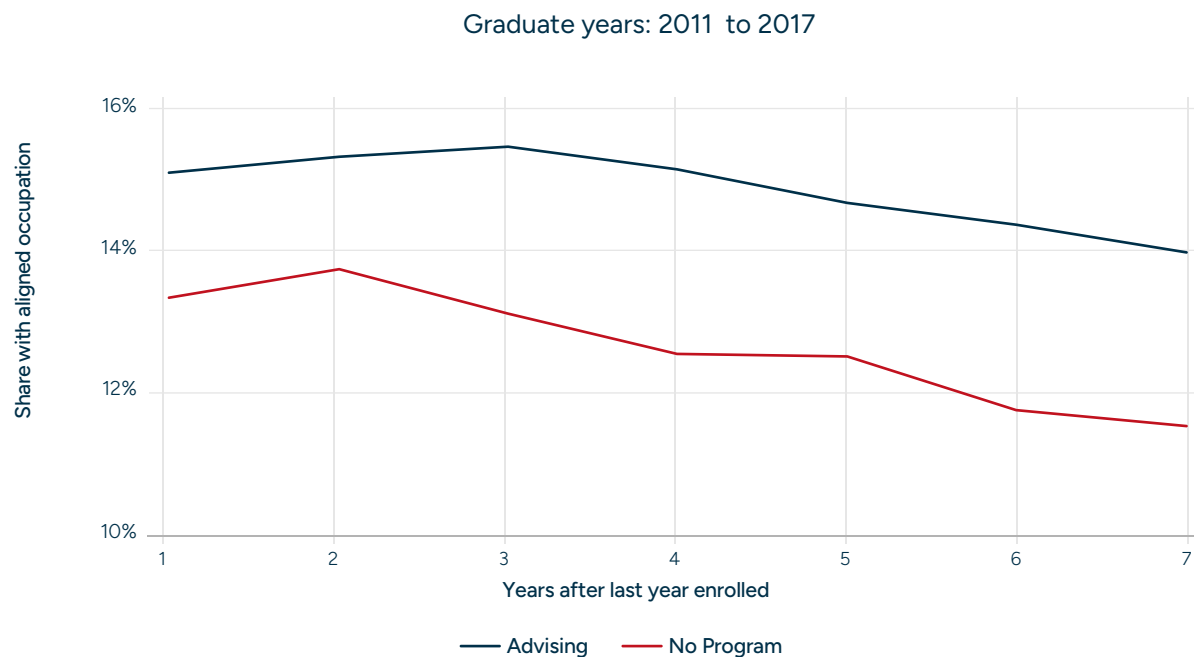
Figure 38: Degree-Occupation Alignment for Transfer Grads: Advising vs. Advising+



Source: Burning Glass Institute

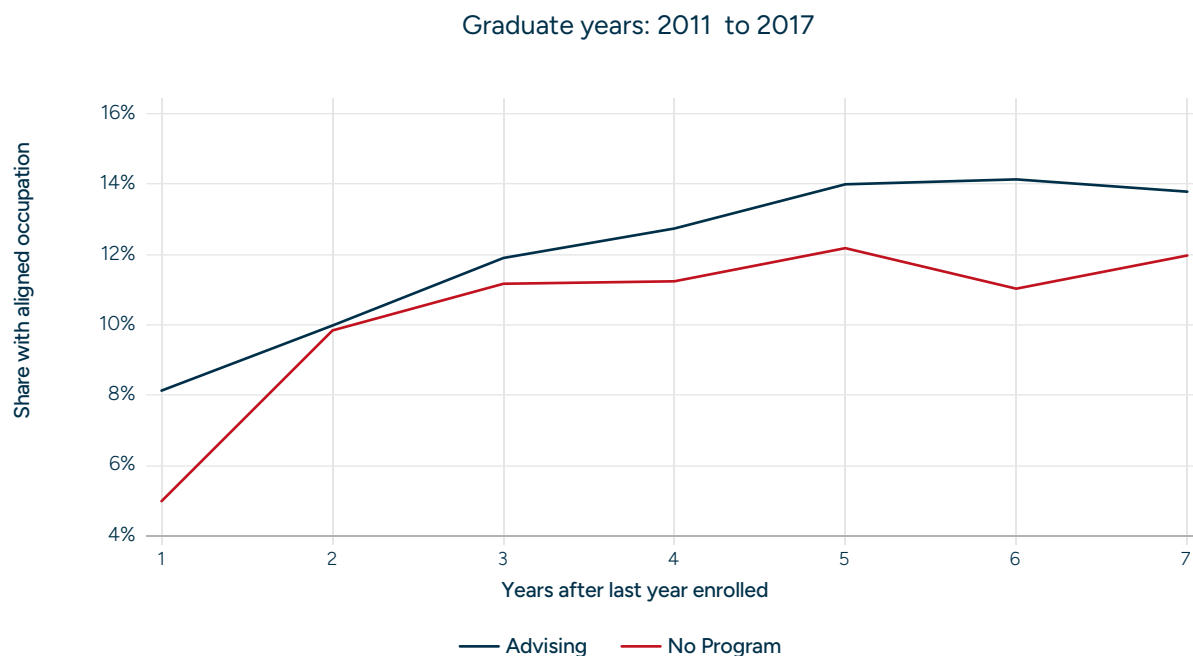
Advising-era GSU graduates reach peak degree-occupation alignment of 15.5% by year 3, followed by a steady decrease to 14% by year 7 after graduation. These alignment rates are substantially higher than corresponding pre-advising cohorts, who peak at nearly 14% aligned at year 2 and subsequently trail to less than 12% by year 7. Meanwhile, transfer grads who also had exposure to advising see consistent gains in alignment through year 6, reaching over 13% despite overall lower rates of alignment compared to GSU graduates.

Figure 39: Degree-Occupation Alignment for GSU Grads: No Program vs. Advising



Source: Burning Glass Institute

Figure 40: Degree-Occupation Alignment for Transfer Grads: No Program vs. Advising



Source: Burning Glass Institute

Ultimately, these findings illustrate how NISS programs extend their impact well beyond graduation, supporting not just access to opportunity but the ability to sustain success in the labor market. Long-term advising helps graduates advance more quickly into management, while programs like PRG and FLC reinforce upward mobility and stability over time. The clearest gains appear among students who received multiple layers of support, particularly for Pell recipients, whose long-term degree-occupation alignment and wage growth outpace those of their peers. Although economic and structural factors continue to shape the pace of career advancement, the evidence shows that data-driven NISS interventions have durable effects, translating early academic momentum into meaningful and lasting economic progress.

Conclusion

Georgia State University's National Institute for Student Success programs illustrate how targeted academic and financial interventions can be associated with meaningful differences in students' long-term labor market trajectories. Across several years of evidence, interventions that began as tools to close graduation gaps have evolved into a comprehensive approach linked to improvements in students' educational progress and post-graduate opportunities.

The findings of this report indicate that NISS interventions are associated with higher persistence and degree completion, as well as distinct workforce patterns years later. Students who engaged with proactive advising, Freshman Learning Communities, the Panther Retention Grant, and the Summer Success Academy were more likely to enter technical and professional occupations, move into management roles sooner, and exhibit stronger wage growth – particularly when supports were layered and sustained over multiple years. These patterns were especially pronounced for Pell recipients, whose wage trajectories and degree-occupation alignment surpassed those of non-Pell peers, suggesting that multi-layered supports may help narrow longstanding opportunity gaps.

At the same time, the analysis underscores areas that warrant continued focus. Underemployment remains a persistent feature of the early-career labor market, affecting nearly 40% of Georgia State graduates within a year of completing their degree. While still substantial, this rate compares favorably to national estimates for recent bachelor's degree holders (52%), suggesting that that NISS interventions help buffer students against, though not fully overcome, broader labor market constraints. These patterns indicate that underemployment is driven less by program participation alone and more by structural conditions in the labor market, underscoring the importance of continued efforts to more tightly connect academic preparation to regional employment opportunities.

Ultimately, these findings suggest that early, data-informed supports can play an important role in expanding access to opportunity and fostering more equitable pathways into the labor market. By integrating predictive analytics, financial support, and structured academic pathways, student success interventions offer a promising model for sustaining success in the labor market – one that other institutions may adapt as they work to center equity, persistence, and economic mobility within their student success efforts.

Appendices

A. Data Sources

B. Match Rate Methodology

A. Data Sources

A.1 Internal Data Sources

This project leverages multiple BGI internal data sources to analyze educational and professional outcomes for GSU graduates. The analysis uses university-provided data on GSU students whose last enrolled term at GSU was between 2011 and 2017. Researchers use the Institute's proprietary career profile data to track employment outcomes for GSU students and graduates.

To examine professional pathways, researchers analyze job experience data from profiles from 2011 onwards (excluding part-time or work-study positions). This approach excludes typical student roles, such as part-time research assistantships, to focus on substantive career experiences.

A.2 External Data Sources

This project incorporates a diverse set of external data sources to enhance the analysis. Median salary outcomes are imputed on the ID-level using data from Glassdoor and the Bureau of Labor Statistics (BLS). Researchers match estimated salaries to individuals' job histories using available information on job titles, occupational classification, employer, state, and year. Salaries are adjusted utilizing the BLS Consumer Price Index (CPI) to create real wages, relative to 2024 wage levels. Figures in this report have been calculated using the most granular Glassdoor wage data available; however, for data confidentiality reasons, the dataset included with this report provides 20 salary groups defined by the median of those groups.

To assess underemployment, BGI researchers apply the BLS definitions of education requirements for occupations.⁷ Any job that does not require a bachelor's degree or higher is considered an underemployed role for a college graduate.

The analysis relies on standardized classification systems to group academic majors, occupations, and industries. The National Center for Education Statistics (NCES) Classification of Instructional Programs (CIP) is used to categorize majors, the Office of Management and Budget (OMB) Standard Occupational Classification (SOC) system is applied to group occupations, and the North American Industry Classification System (NAICS) is used to classify industries.

To explore the alignment between education and career outcomes, BGI researchers utilize the BLS CIP-SOC crosswalk to measure how many graduates pursued careers closely related to their field of study.

B. Match Rate Methodology

To evaluate employment outcomes for GSU students and graduates, researchers matched data provided by GSU to internal career history profiles for students attending GSU from 2006 through 2025. Data from the GSU included detailed variables in the following categories: personally identifiable information (PII), demographics, education history, and location.

Final match results are as follows:

Match Rate	Matched Unique Individuals in Analysis Dataset	Total Unique Individuals in Source Data
47.52%	40,216	84,635

Researchers utilized a hierarchical matching framework that combines personal identifiers and academic details to ensure accurate matches, leveraging nearly 80 match levels.

Match levels are ordered by confidence in descending order:

Tier	Criteria
Tier 1: Ultra High Confidence – Perfect Matches	Uses exact first/last names with strongest identifiers: • Exact K-12 school • Exact postsecondary school • Exact graduation year • Exact enrollment year • Exact birth year • Sex and race • Precise location • Detailed major (CIP6) Variations include adding middle initial, combining different year types, or swapping school identifiers (name vs. code).
Tier 2: High Confidence – Controlled Flexibility	Maintains exact names and demographics but introduces controlled relaxation: • Drops birth year requirement, • Allows +/- 1 year tolerance on graduation dates, • Downgrades from CIP6 to CIP4 major codes, or • Replaces exact school matches with fuzzy logic Still requires strong anchors, such as school name or code, or zip code, ensuring multiple verification points.

Tier	Criteria
Tier 3: Medium-High Confidence – Broader Field Matching	Further relaxes requirements: • Utilizes CIP2 major code (broadest field category), • Removes school requirements entirely (relying on state, demographics, and CIP), • Extends year tolerance to +/- 2, or • Adds fuzzy school matching for both K-12 and postsecondary names Variations swap between current and school state, and enrollment vs. graduation timing.
Tier 4: Medium Confidence – Reduced Demographics	Removes or adjusts requirements: • Drops race requirement and solely utilizes sex, • Relies more heavily on CIP2 major code, • Removes year constraints entirely for some levels, • Combines weaker identifiers like school city or state without exact school name, or • Uses only sex, state, and broad field Represents shift from multi-verified matches to reasonable likelihood matches.
Tier 5: Lower Confidence – Fuzzy Matching Introduction	Further removes or adjusts requirements: • Introduces fuzzy matching for school name phonetic matching, • Relaxes to +/- 3-year tolerance, or • Allows matches with minimal criteria (just names, ZIP, and sex) Removes multiple verification points, relying on fewer columns. Some levels use only current location without historical school data, representing probabilistic rather than deterministic matching.
Tier 6: Lowest Confidence – Minimal Criteria and Name Fuzzy	Final requirement adjustment: • Applies fuzzy matching to names themselves (first or last, then both), • Uses only 2-3 verification points (e.g., names, sex, and state), or • Allows matches without school or year data Final match level is just names, sex, and race. Represents last resort matching where data is minimal but usable and some match is better than none. We also did some QA work on Tier 5 and 6 to remove some of the poorer matches to strike the right balance between quality and coverage.

Endnotes

¹ A convenience sample refers to data collected from individuals, firms, or institutions that are readily available rather than being randomly selected from the target population. While convenience samples can yield valuable insights, they are prone to selection bias, as the observed units may systematically differ from the general population in unobserved ways — such as income level, internet access, or career orientation — which complicates causal inference and generalization. Using career history profiles to study student outcomes reflects a convenience sample, as it includes only those students who chose to create and update professional profiles. These individuals may differ in important ways from those not observed in the data, potentially biasing the results.

² **“Talent Disrupted: College Graduates, Underemployment, and the Way Forward.”** February 2024.

³ Additional detail on the match rate methodology can be found in Appendix B.

⁴ The National Center for Education Statistics provides the **Classification of Instructional Programs** (CIP) taxonomy to classify academic programs in postsecondary education.

⁵ **Standard Occupational Classification** (SOC) codes are articulated by the Bureau of Labor Statistics to classify workers into occupational categories.

⁶ The **CIP-SOC crosswalk** matches 6-digit CIP codes to 6-digit SOC codes to match postsecondary academic programs to occupations based on skills and knowledge. The crosswalk is a joint effort by the Bureau of Labor Statistics and the National Center for Education Statistics.

⁷ “Education and Training Assignments by Detailed Occupation.” U.S. Bureau of Labor Statistics, U.S. Department of Labor, 29 Aug. 2024, <https://www.bls.gov/emp/tables/education-and-training-by-occupation.htm>

