



National Alumni Career Mobility Annual Report 2024

Discover benchmarks and best practices to transform student career success

Author

Dr. Kimberly Yousey-Elsener
Lightcast Alumni Surveys Research Fellow



About Lightcast

Lightcast provides trusted global labor market data, analytics, and expert guidance that empowers communities, corporations, and learning providers to make informed decisions and navigate the increasingly complex world of work. With a database of more than one billion job postings and career profiles, our team provides best-in-class customer service with robust data, clear analysis, and expert guidance on skills, jobs, and opportunities.

Lightcast is active in more than 30 countries and has offices in the United States, United Kingdom, Canada, Italy, New Zealand, and India. The company is backed by global private equity leader KKR. For more, visit lightcast.io.

© Copyright 2024 Lightcast

www.lightcast.io

info@lightcast.io

(208) 883 3500



Table of Contents

Introduction	5
About NACM	6
About this year's report	7
Key Takeaways	8
Measuring Equity and Return on Investment	9
Factor #1 - Career Preparation	14
Factor #2 - Institutional Career Investment	18
Factor #3 - Career Satisfaction	22
Factor #4 - Economic Mobility	27
Factor #5 - Community Engagement	31
Recommendations	34
Appendices	35

Introduction

For postsecondary institutions, insight from alumni is essential to validating effectiveness and guiding improvement.

But education is a long-term investment. It can take years, and multiple jobs, before graduates truly understand and appreciate how their postsecondary experience prepared them for the challenges and opportunities of life after college.

That's why first-destination surveys are necessary, but not sufficient – they capture an important data point (first job), but not the complete picture. Institutions also need insight into alumni's perception of their college-to-career journey after they've had a chance to gain additional experience and perspective.

[The National Alumni Career Mobility \(NACM\) survey](#) exists to fill this gap. It invites alumni to reflect on the role that their education has played in their career, economic mobility, and community involvement, looking back from their vantage point five and ten years after graduation. The results help institutions identify experiences and practices that correlate most strongly with successful outcomes – illuminating actionable strategies to improve alumni satisfaction and return on investment.



About NACM

NACM was created by [the Career Leadership Collective](#) in 2019 to gather data across key themes, including career satisfaction, economic mobility, educational satisfaction, learning experiences, and community engagement. In 2023, it became a part of Lightcast, along with the Career Leadership Collective's [Embark first destination survey](#). Both are now part of Lightcast's family of alumni outcomes solutions, which also includes custom consulting services and [Alumni Pathways software](#) (in partnership with the National Student Clearinghouse). This collection of data-rich tools delivers a 360° view of students' academic and career outcomes, creating a feedback loop to inform practices that enable learner career success.

As higher education faces existential questions related to equity, outcomes, and value, NACM unlocks much-needed insight into these challenges through alumni sentiment data collected five and ten years after graduation. NACM surveys also connect alumni sentiment back to the student experience, illuminating equity gaps and providing concrete strategies to increase students' return on investment.

The aggregated findings in this report are made publicly available to help further the conversation in higher ed on these important issues. Institutions that participate in the NACM survey receive more detailed, institution-specific insights for their own alumni, as well as early access to this report for benchmarking purposes and support from the dedicated team at Lightcast.

To learn more about NACM, including how to participate in future cohorts, [visit our website](#).



About this year's report

This report is based on data collected during the NACM 2023 cohort, comprising 9,067 undergraduate responses collected in partnership with 34 different institutions across the United States (Appendix B). Lightcast Alumni Surveys Research Fellow Dr. Kimberly Yousey-Elsener conducted the analysis and drafted the findings.

With NACM now in its fifth year of data collection, it was time to re-test the assumptions made in previous research. A full update of this methodology can be found in Appendix A. Similar to tests completed in the earlier years of NACM, five core research factors held up strong, ensuring that the results in this national report are based on statistically robust measures. The body of this report is organized around these five core research factors:

1. Career Preparation
2. Institutional Career Investment
3. Career Satisfaction
4. Economic Mobility
5. Community Engagement

One additional factor, the Career Mobility Index (CMI), did not stand up well in this round of testing and is not a focus of this year's report. However, several of what were referred to in previous reports as "high impact career practices," which were derived from the CMI, are among the strategic influencers (defined below) for the five factors and are thus still key elements in this year's report (e.g. understanding career opportunities, creating a career plan, networking with employers). In addition to those, several new influencers have emerged that are highlighted in this year's analysis (e.g. career and self-development skills, leadership skills, and obtaining advice from career services).

For each of the above five core research factors, we provide a definition and summary of national trends, followed by a more nuanced look at:

- **Equity gaps** - How different populations score differently on each factor
- **Return on investment (ROI)** - How each factor correlates with alumni perception of ROI
- **Strategic influencers** - Specific practices or experiences that predict high ratings for each factor

By focusing on the five themes and their relationship to equity, ROI, and strategic influencers, institutions can identify concrete steps to improve outcomes in the areas that most align with their unique mission and values.



Key Takeaways

- Career Preparation and Institutional Career Investment are both strongly related to alumni perception of ROI. Yet, less than half of respondents scored high on Career Preparation (49%) and an even smaller number (23%) on Institutional Career Investment.
- 86% of those who scored high on Career Preparation agreed that their degree was worth the tuition compared to only 6% agreeing of those who scored low on Career Preparation.
- 81% of those who scored high on Institutional Career Investment agreed that their degree was worth the tuition compared to 34% of those who scored low on Institutional Career Investment.
- Four strategic influencers have the largest impact across multiple areas. These include:
 - Understanding career opportunities
 - Creating a career plan
 - Envisioning career options
 - Developing career & self-development skills
- Equity gaps for historically marginalized populations point toward three key areas: Career Preparation, Institutional Career Investment, and Student Loan Debt. Institutions seeking socially just outcomes should increase access to strategic influencers associated with Career Preparation and Institutional Career Investment as well as ensure that student loan debt is manageable and able to be paid off within 10 years of graduation.

Measuring Equity and Return on Investment

Equity and return on investment play a prominent role in today's discourse about the value of higher education, but can be stubbornly difficult areas for institutions to measure. To help with this, NACM surveys illuminate equity gaps and capture alumni sentiment about ROI in the following ways.

Measuring Equity

Equity gaps in this report were examined for populations that had robust enough response numbers (typically 150 or more) to be able to run the appropriate statistical analysis (Appendix B). NACM collects a wide variety of demographic data directly from respondents. This report focuses on respondents who identified as first generation, Asian, Black or African American, Latinx, non-binary gender identities, women, men, those who obtained their degree between the ages of 17-24, and those who obtained their degree at 25 years old or older.

For those interested specifically in equity and strategies for improving in this area, a summary by each of these topics across all research factors can be found in Appendix C and Appendix D.

Measuring Return on Investment

Return on investment is measured throughout this report based on respondents' agreement with three statements. Here we talk through the results of each of these statements.



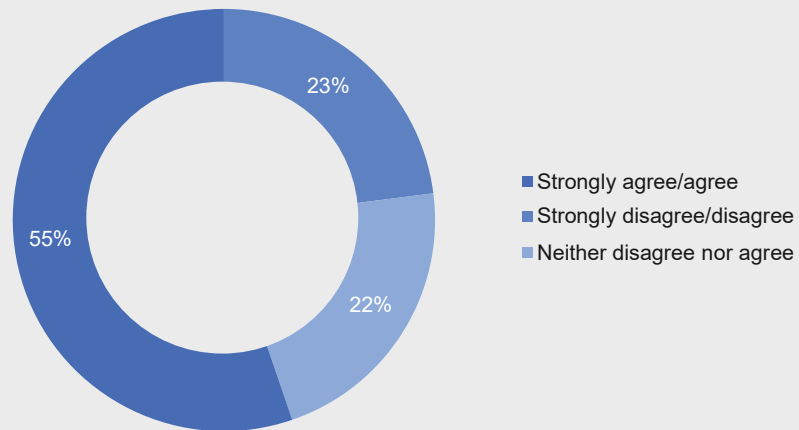
Worth the tuition

First, “My degree was worth the tuition” gathers alumni perceptions of the value of their degree in relation to the cost of obtaining that degree. Just over half (55%) of respondents agreed that their degree was worth what they paid in tuition (see Figure 1).

However, when responses were disaggregated, first generation respondents had significantly lower levels of agreement compared to non-first generation students. Black or African American respondents had significantly lower levels of agreement than those who identified as white. And those with non-binary gender identities had significantly lower levels of agreement than both women and men.

Figure 1: My Degree Was Worth the Tuition

Just over half of alumni agree their degree was worth the tuition they paid



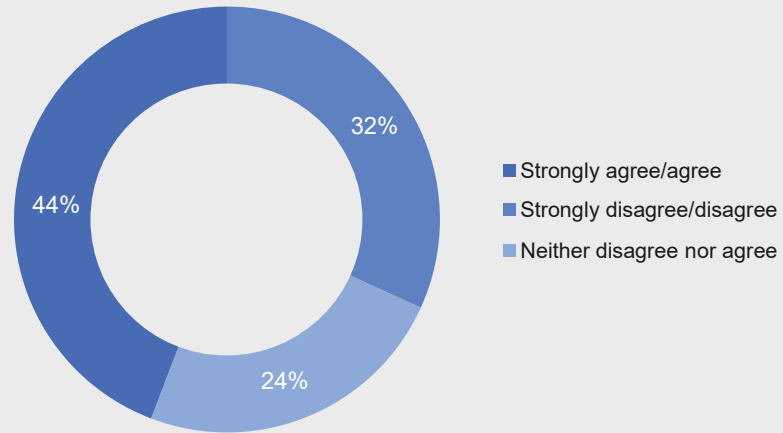
Worth the student loan debt

Second, “My degree was worth my student loan debt” gathers alumni perception of the value of their degree in relation to the continued costs of that degree.

Unlike the first question, less than half (44%) of respondents agreed that their degree was worth their debt burden. When disaggregated, first generation respondents had significantly lower levels of agreement compared to non-first generation students. Black or African American respondents have significantly lower levels of agreement than those who identified as white. Those with non-binary gender identities also had significantly lower levels of agreement than both women and men. And finally, those who identified as women had significantly lower levels of agreement than men.

Figure 2: My Degree Was Worth My Student Loan Debt

Less than half of alumni think their degree is worth their loan debt



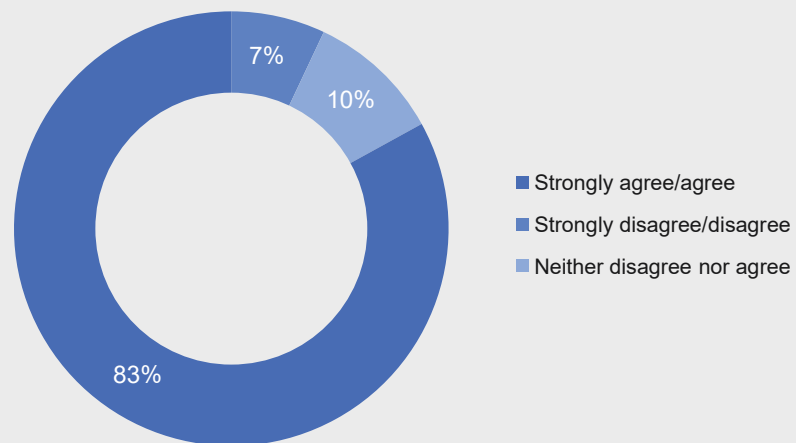
Satisfaction with educational experience

Third, "I am satisfied with my educational experience" measures alumni's overall satisfaction with their educational investment.

Traditionally, this is the ROI measure with the most positive results, and the trend continued this year with 83% of respondents agreeing they were satisfied. When disaggregated, first generation respondents had significantly lower levels of agreement compared to non-first generation students. Those with non-binary gender identities also had significantly lower levels of agreement than both women and men.

Figure 3: I Am Satisfied With My Educational Experience

Most alumni are satisfied with their educational experience



Strategic Influencers of ROI

Understanding alumni's motivations for obtaining their degree in the first place (their "why") helps to clarify what alumni expect in return for their educational investment. The top four motivations for obtaining a degree show a strong emphasis on career-related factors (3 of the 4), **indicating that career outcomes play an important role in alumni's perceptions of ROI.**

Motivation	% of respondents citing as motivation for obtaining a degree
Career Success	60%
Intellectual Development	51%
Financial Gain	44%
Required for career aspirations	41%



The Five Core Research Factors

An analysis of five factors that improve equity and student ROI

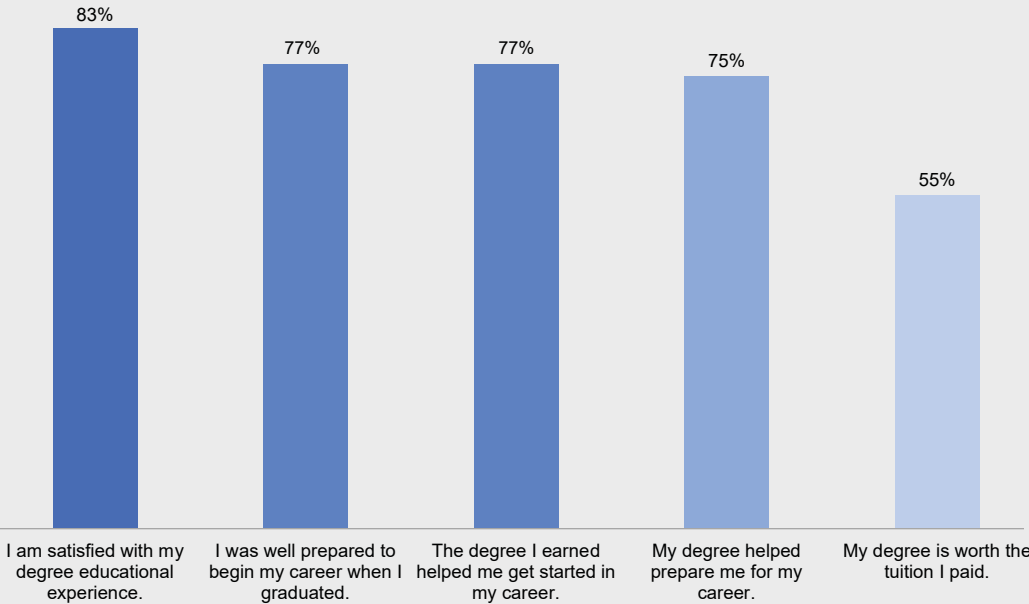


Factor #1 - Career Preparation

Career Preparation (CP) seeks to measure alumni's perspectives on whether they felt adequately prepared to launch their career journey after college. Five questions contribute to an overall CP score (see Figure 4). Overall, the majority of respondents agreed that their degree set them up well for their career.

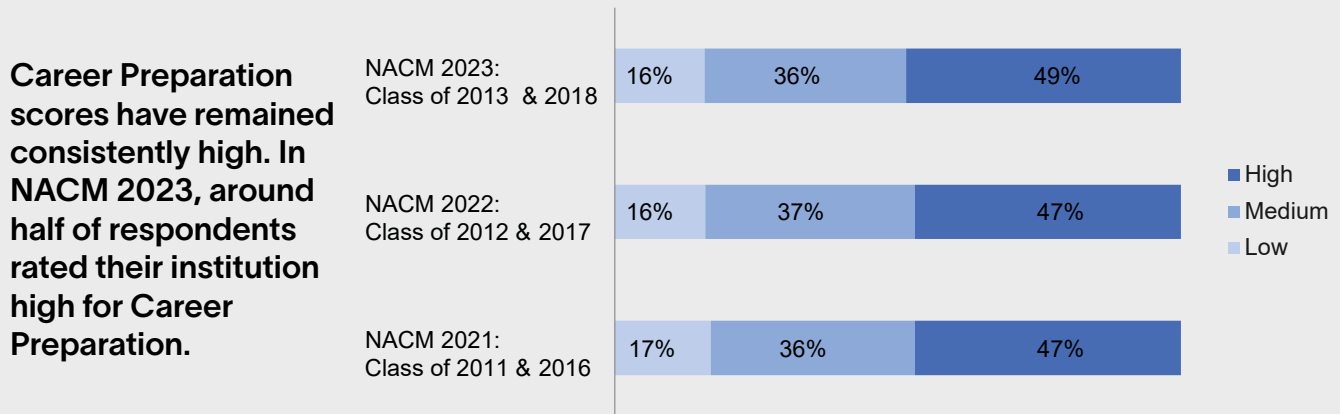
Figure 4: Components of Career Preparation

Most alumni felt their degree prepared them for their career



CP scores have remained consistent over the past three years of NACM surveys, with 49% of alumni giving high scores (4-5 on a 5 point scale) to their institutions on this factor in NACM 2023.

Figure 5: Career Preparation trends over past 3 years



When explored further, equity gaps appear for specific groups of alumni:

First Generation respondents saw significantly lower CP scores (3.65 average CP score out of a possible 5) than non-first generation students (3.78 average CP score).

Black or African-American respondents saw significantly lower CP scores (3.64 average CP score) than those who identified as white (3.77 average CP score).

Non-binary gender identities respondents scored significantly lower (3.36 average CP score) than respondents who identified as women (3.76 average CP score) or men (3.77 average CP score).

There were no statistically significant differences between age cohorts.

Factor scores are on a scale of 1-5



Career Preparation is also strongly linked with ROI. **Those who score high on CP also saw more value in their degrees** (Appendix E). The figures below illustrate the connection between CP and ROI. Notably, **100% of respondents who reported high CP scores also said they were satisfied with their educational experience** (see Figure 8). This constitutes strong evidence that career-readiness is an essential part of a positive college experience for learners.

Figure 6: My degree was worth the tuition

Alumni with strong Career Preparation scores are much more likely to say their degree was worth the cost

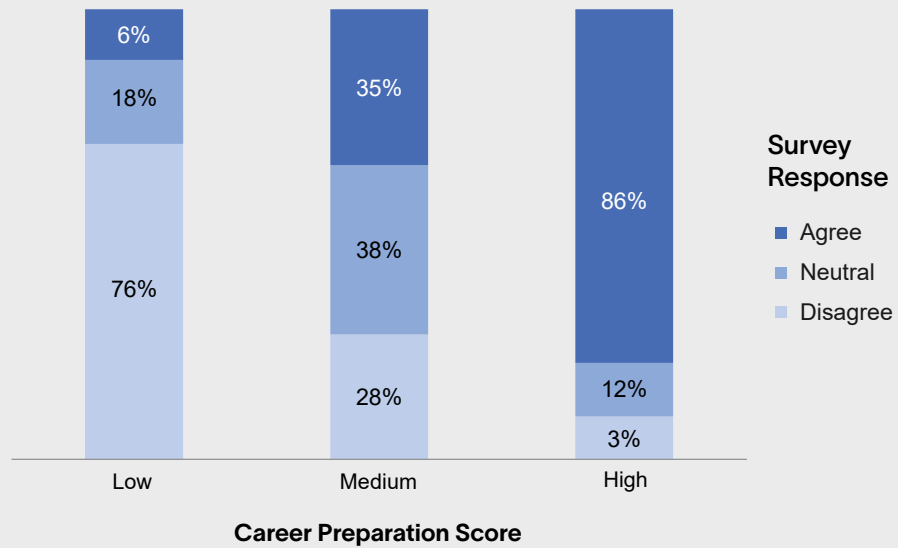


Figure 7: My degree was worth my student loan debt

Respondents with high Career Preparation scores are more likely to say that their degree is worth their student loan debt

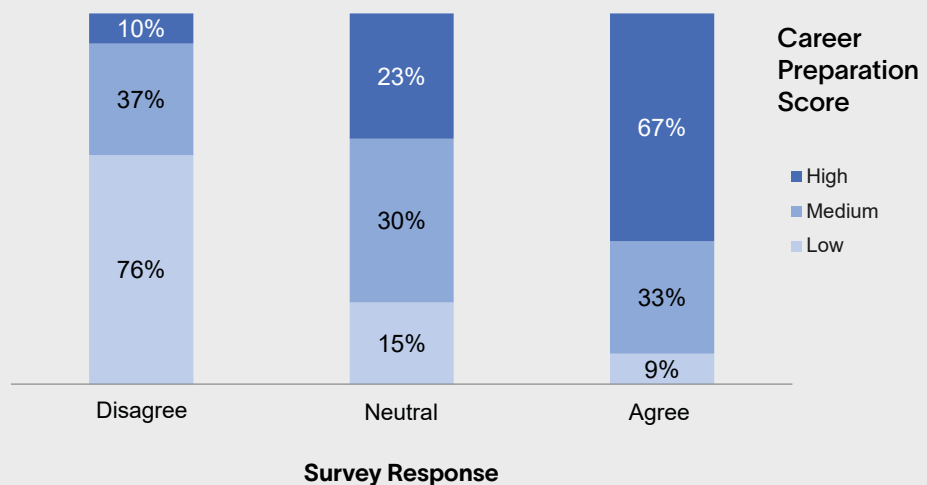
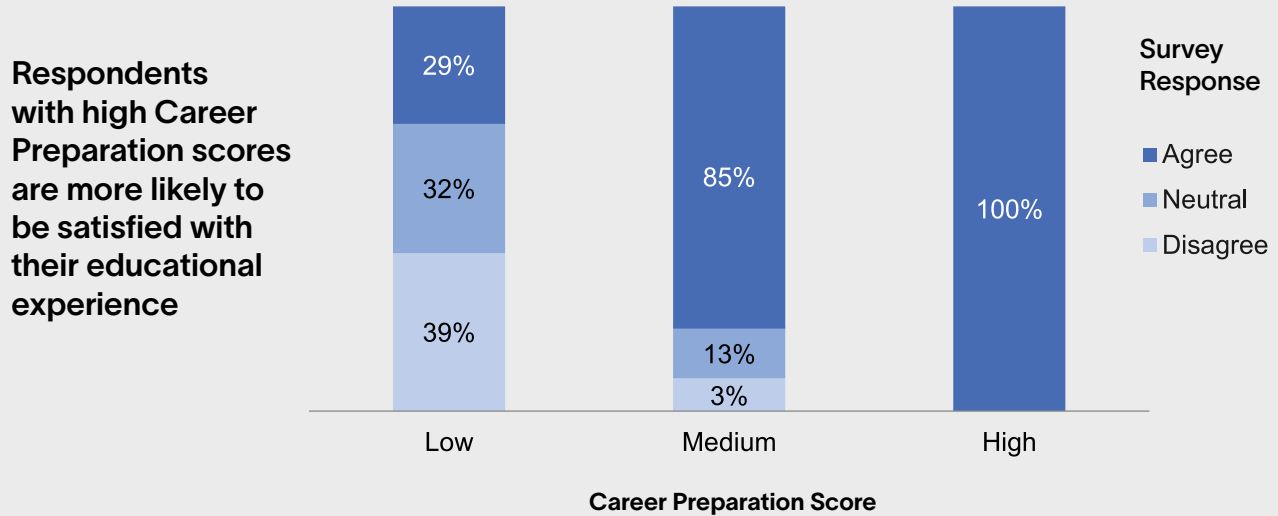


Figure 8: I am satisfied with my educational experience.



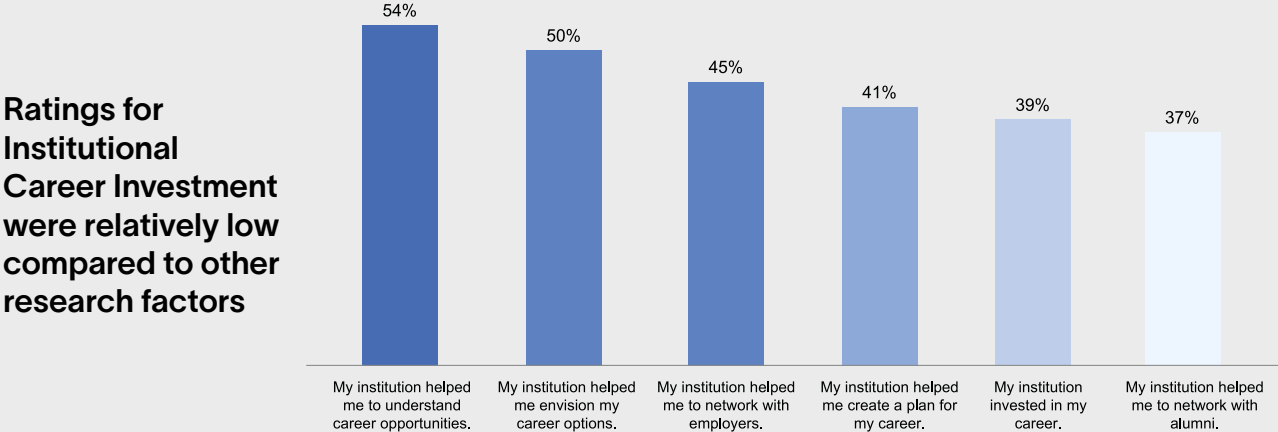
Focusing on career preparation is essential for campuses who are seeking to narrow equity gaps and increase ROI. NACM data points to the following as the top five strategic influencers with a significant impact on CP scores:

- My institution invested in my career.
- My institution helped me to understand career opportunities.
- My institution helped me create a plan for my career.
- My institution helped me envision my career options.
- My degree helped me gain career & self-development skills.

Factor #2 - Institutional Career Investment

Institutional Career Investment (ICI) explores the extent to which alumni feel their institution took meaningful steps to help them prepare for their career. Six questions are used to measure ICI (see figure 9). **Understanding and envisioning career opportunities were the two highest-rated components of this factor**, and the only ones with at least 50% of respondents saying they “agree” or “strongly agree.”

Figure 9: Components of Institutional Career Investment

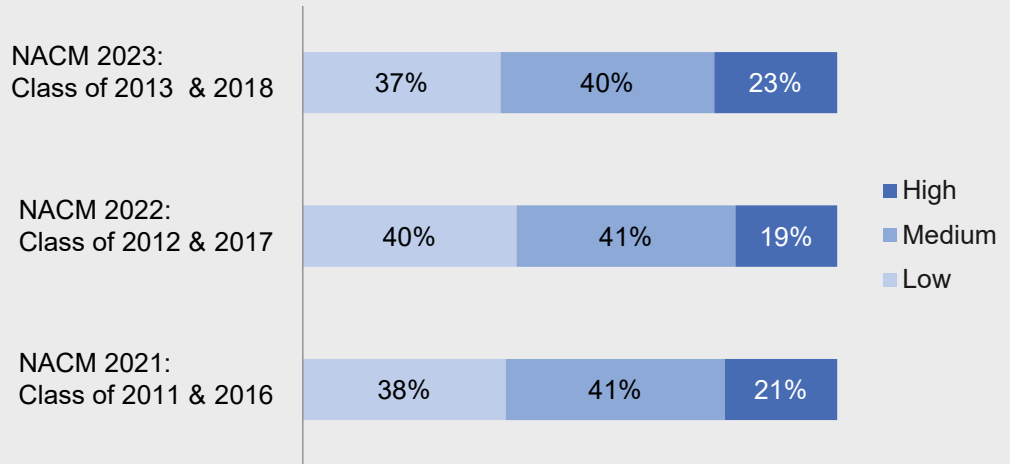


This year’s ICI scores follow previous years’ trends, with 23% of respondents scoring high. The fact that less than a quarter of alumni rate their institution highly on this factor indicates **this is a much needed area of improvement for postsecondary institutions**. The good news is, this is also one of the factors that institutions can impact most directly through investment in tools, services, and programs that facilitate career exploration and networking while learners are still enrolled.



Figure 10: Institutional Career Investment trends over past 3 years

Only 23% of respondents rated their college high for Institutional Career Investment



Taking a deeper look at the overall ICI scores, certain equity gaps emerge.

First Generation respondents saw significantly lower ICI scores (3.08 average ICI score) than non-first generation students (3.20 average ICI score).

Latinx respondents saw significantly lower ICI scores (3.09 average ICI score) than those who identified as white (3.19 average ICI score).

Non-binary gender identities saw significantly lower ICI scores (2.78 average ICI score) than respondents who identified as women (3.18 average ICI score) or men (3.20 average ICI score).

There were no statistically significant differences between age cohorts.

Factor scores are on a scale of 1-5

Institutions that invest in their students' career development produce alumni who feel prepared for their post-college career. It's not surprising then that **ICI has a moderately strong and statistically significant positive relationship with ROI** (Appendix E). This demonstrates the connection between investing in students' career-readiness and the likelihood that they will respond positively across the three measures of ROI.

Figure 11: My degree was worth the tuition

Respondents scoring high on Institutional Career Investment are more likely to agree that their degree was worth their tuition

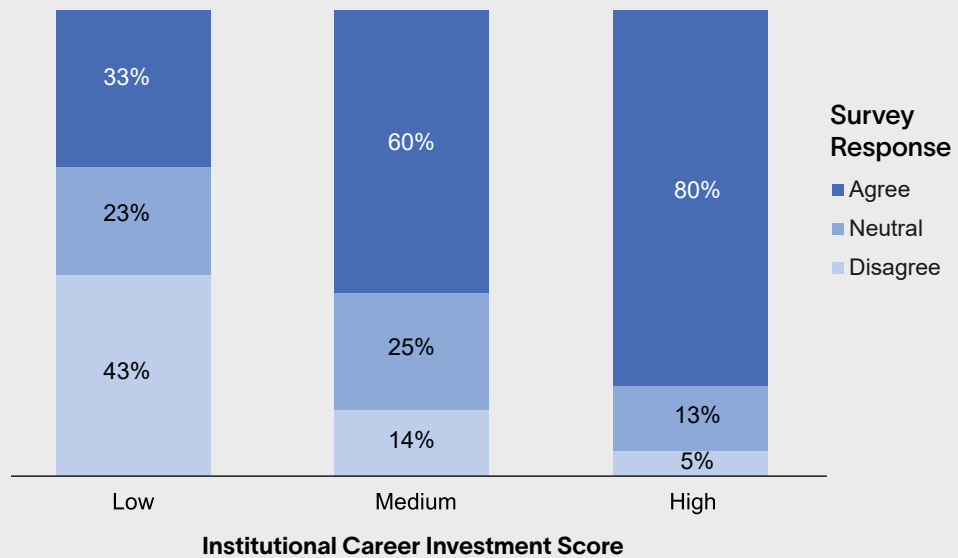


Figure 12: My degree was worth my student loan debt

Respondents scoring high on Institutional Career Investment are more likely to agree that their degree was worth their student loan debt

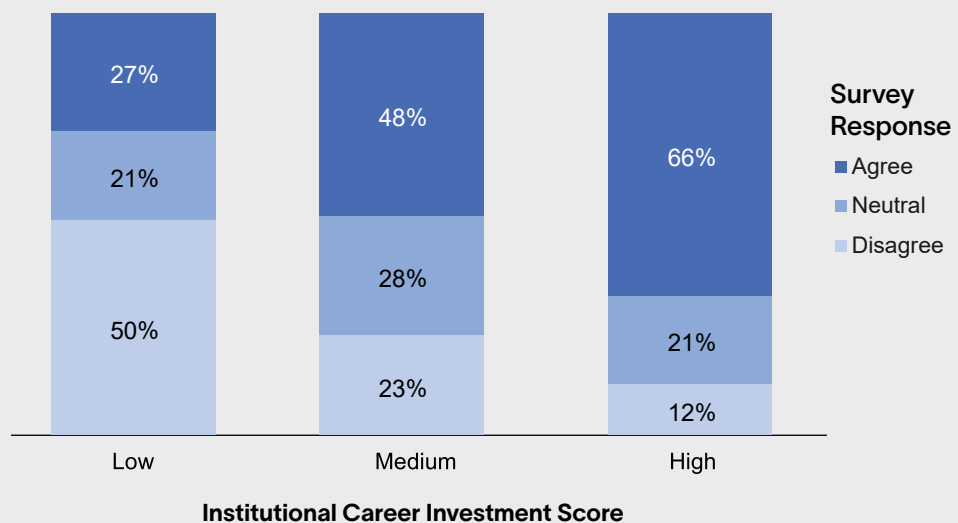
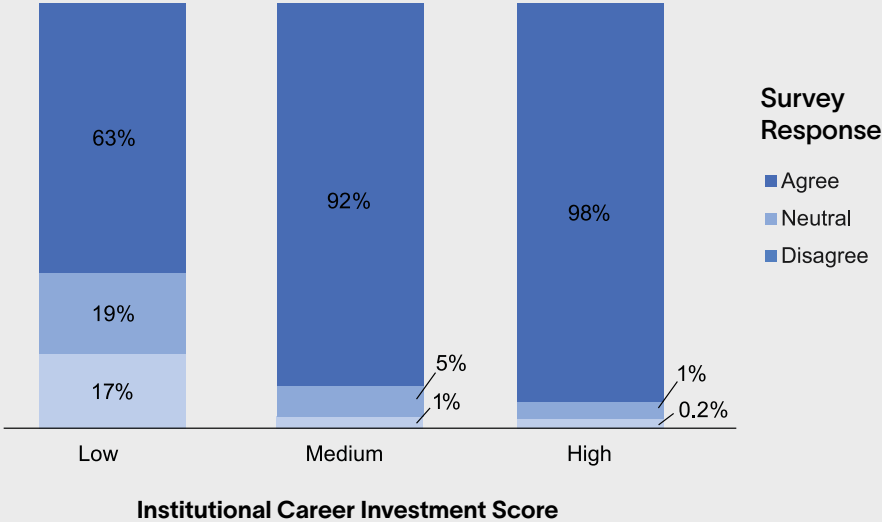


Figure 13: I am satisfied with my educational experience.

Respondents scoring high on Institutional Career Investment are more likely to be satisfied with their educational experience



We see then that ICI is an important factor in increasing ROI ratings and strengthening career preparation. In addition to the six items listed in Figure 9 (see above), the following five influencers are specific practices and experiences institutions should consider promoting to improve their ICI scores:

- I received helpful career advice from Career Services.
- My degree helped me gain career & self-development skills.
- My degree helped me gain leadership skills.
- I received helpful career advice from my Academic Advisor.
- My degree helped me gain professionalism skills.

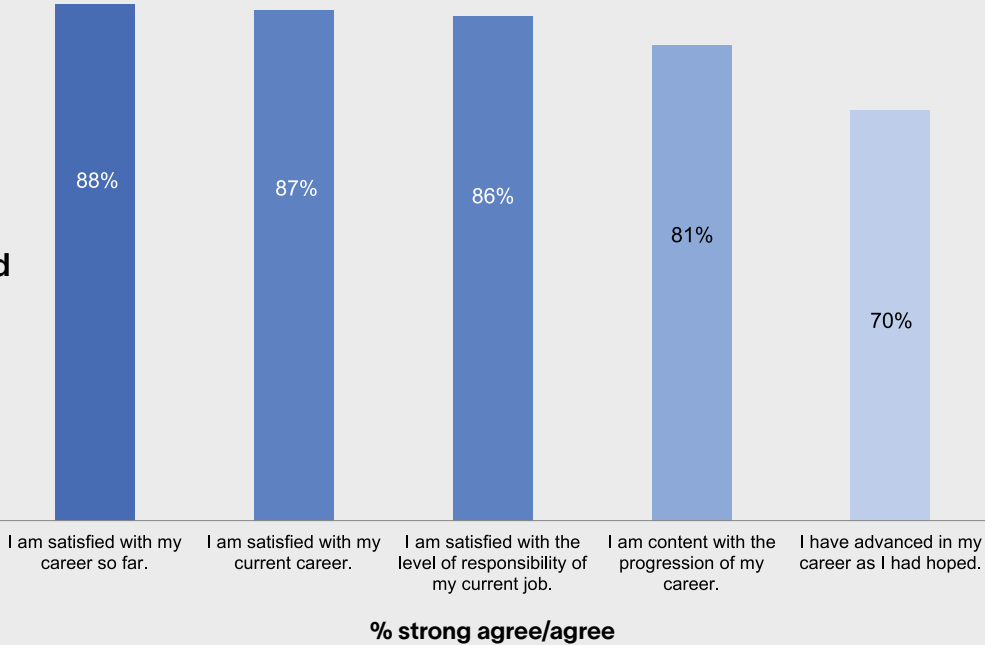


Factor #3 - Career Satisfaction

The Career Satisfaction (CS) factor shifts focus from alumni's perception of their educational experience *during* college to alumni's perception of their work experience after graduation. CS is based on responses to five questions (see Figure 14). Overall, respondents agree that they are happy with their career, though satisfaction with career advancement had the lowest level of agreement (70%) among the five questions.

Figure 14: Components of Career Satisfaction

NACM 2023 respondents scored high on Career Satisfaction.

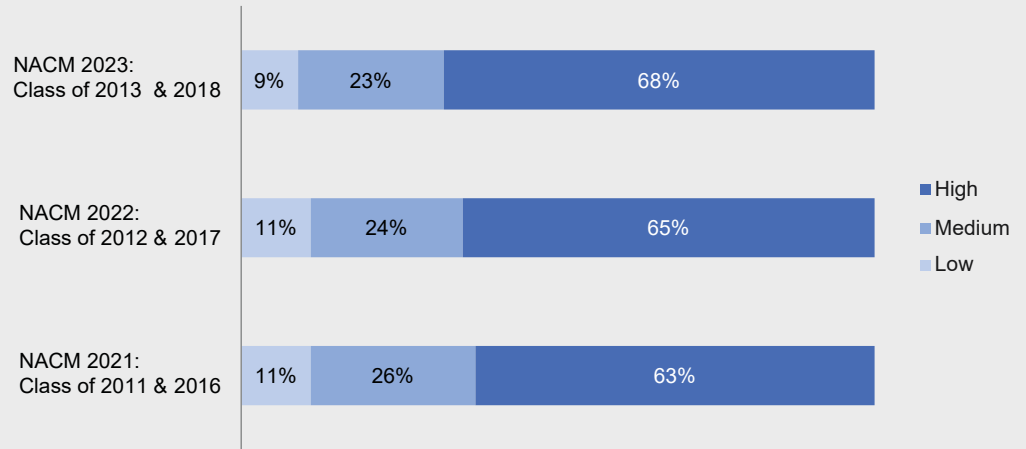


Encouragingly, overall CS scores are trending upward. While this is a positive trend post-COVID, it should be monitored to determine the extent to which this year's methodological change may be impacting these findings (see Appendix A: Methodology for details).



Figure 15: Career Satisfaction trends over past 3 years

Career Satisfaction scores are trending upward



While the upward trend in CS is welcomed, data indicates not all identity groups are experiencing career satisfaction in the same way. Equity gaps include the following:



First Generation (3.98 average CS score) respondents saw significantly lower CS scores than non-first generation students (4.10 average CS score).



Asian (4.06 average CS score) respondents saw significantly lower CS scores than white (4.09 average CS score) respondents.

Black or African American (3.94 average CS score) respondents saw significantly lower CS scores than white (4.09 average CS score) respondents.

Latinx (4.02 average CS score) respondents saw significantly lower CS scores than white (4.09 average CS score) respondents.



Non-binary gender identities (3.75 average CS score) respondents saw significantly lower CS scores than respondents who identified as women (4.05 average CS score) or men (4.12 average CS score).

Women (4.05 average CS score) respondents saw significantly lower CS scores than respondents who identified as men (4.12 average CS score).



Those who obtained their degree when they were 25 or older (3.60 average CS score) saw significantly lower CS scores than respondents who obtained their degree between the ages of 17-24 (4.09 average CS score).

Factor scores are on a scale of 1-5

Career Satisfaction showed a weaker link with ROI measures than the previous factors (Appendix E). However, the relationships were still statistically significant and should be considered. Similar to other factors, there is a positive correlation between scoring high on CS and agreeing with the three ROI measures.

Figure 16: My degree was worth the tuition

Respondents scoring high on Career Satisfaction are more likely to agree that their degree was worth the tuition they paid

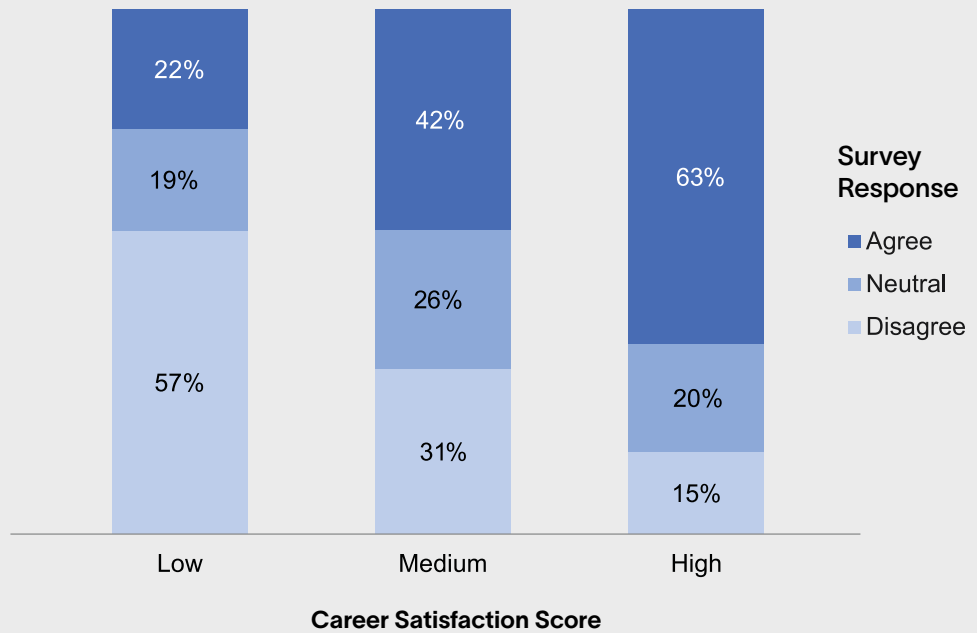


Figure 17: My degree was worth my student loan debt

Respondents scoring high on Career Satisfaction are more likely to agree that their degree was worth their student loan debt

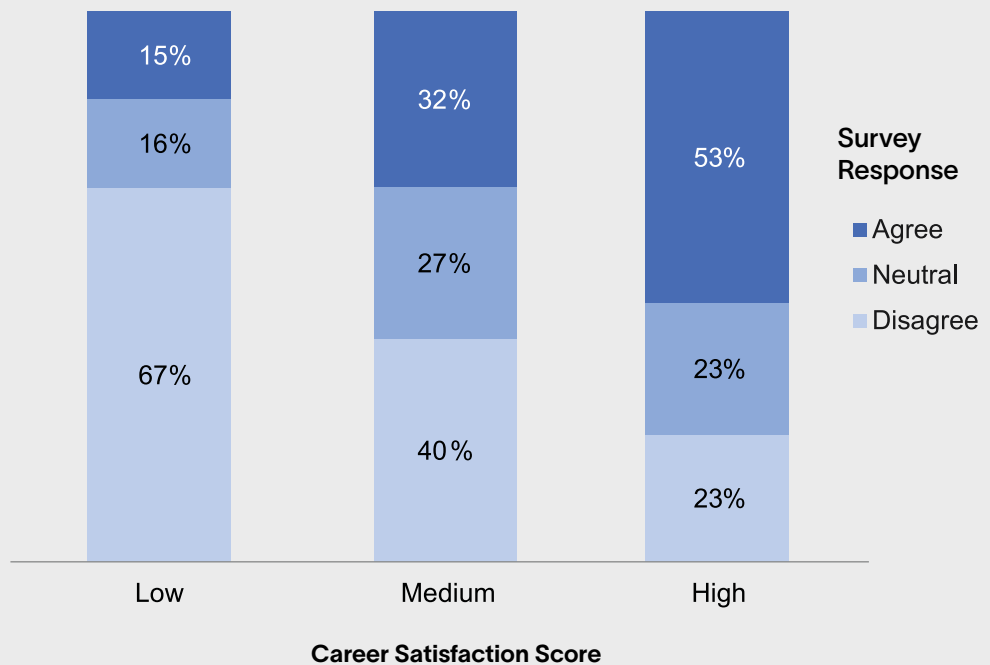
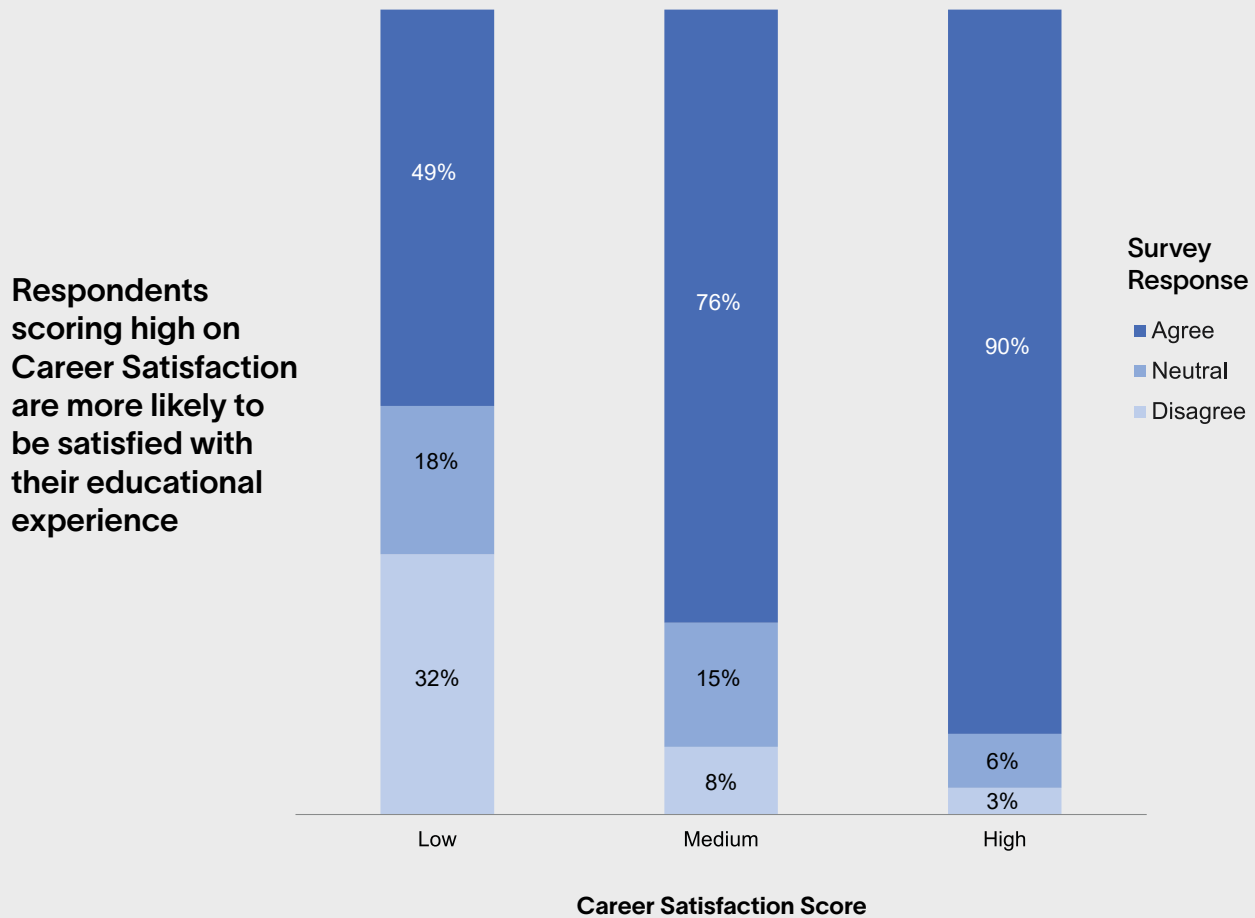


Figure 18: I am satisfied with my educational experience



Note that, of the top influencers for Career Satisfaction, only two (in bold below) are within the control of higher education institutions. **Focusing on these points (helping students understand career opportunities and helping learners land a first job that aligns with their career goals) is key to setting graduates up for success and satisfaction post-graduation.**

- My current position is related to the career goal I have now.
- My current position provides opportunities for further learning and skill development.
- The work I do in my current position is meaningful to me.
- **My institution helped me to understand career opportunities.**
- I am likely to retain my current employment until I choose to leave.
- **The first job I secured after my bachelor's degree helped me pursue my career goals.**

Factor #4 - Economic Mobility

Unlike other measures of mobility that rely only on earnings data, the Economic Mobility (EM) factor is based on alumni perception of their financial status *in relation to the household in which they grew up*. This sentiment data provides greater context and perspective on economic mobility than what can be gleaned from salary data alone. It is measured using three items (see Figure 19).

Figure 19: Components of Economic Mobility

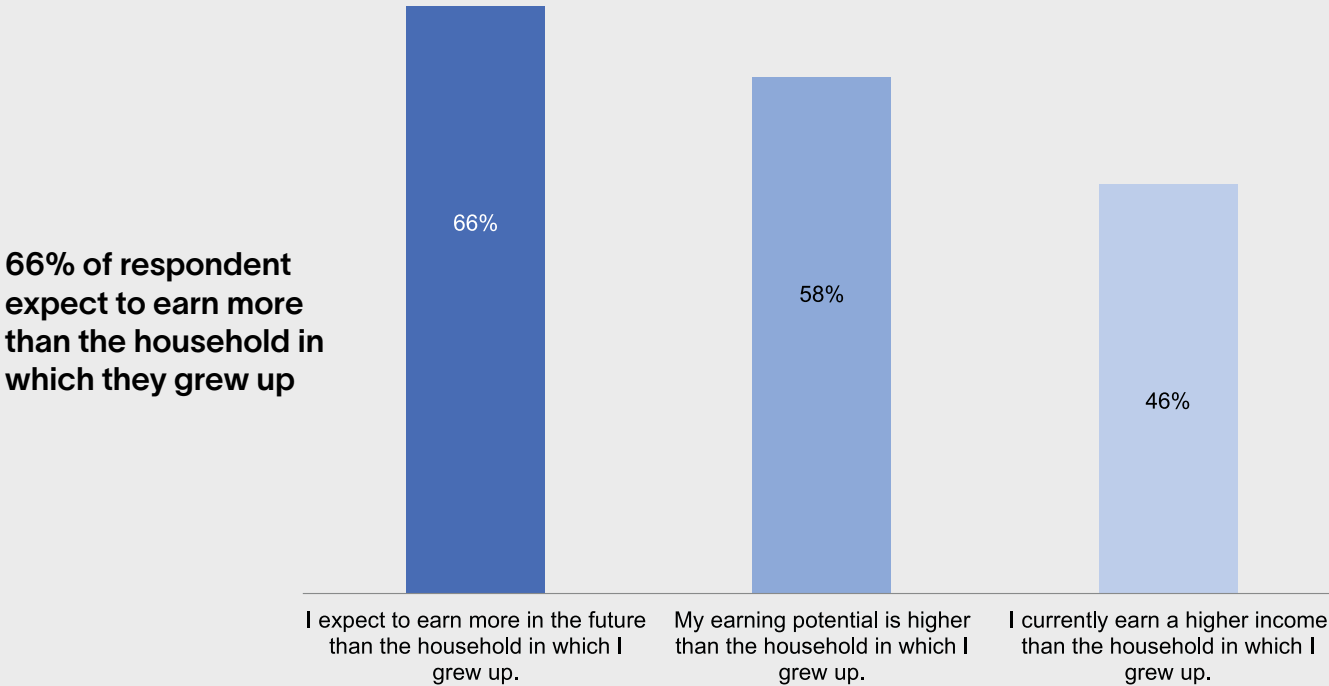
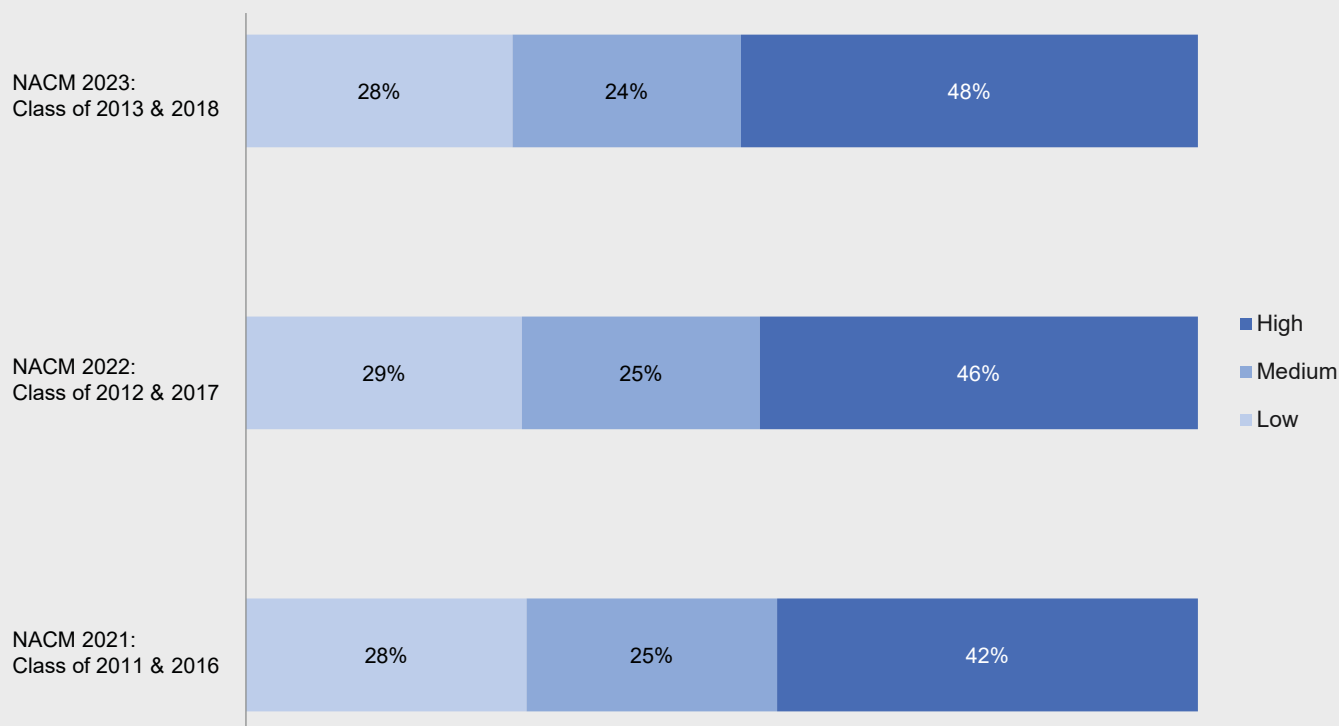


Figure 20: Economic Mobility is trending upward



As seen in Figure 20, Economic Mobility is trending upward year-over-year. This is, of course, encouraging. But when it comes to equity gaps, there is a potential risk to looking at the EM measure alone: Respondents who identify in one of the historically marginalized populations often come from lower-income households, and are therefore more likely than other populations to achieve greater financial success relative to the household in which they grew up. With the exception of gender, this leads to higher EM scores for respondents who identify in these historically marginalized populations.

However, equity gaps start to look different when student loan debt is factored into the picture. That's why, in addition to the EM factor, the NACM survey also asks respondents for perceptions related to their student loan debt:

- 60% of respondents incurred student loan debt in order to obtain their degree.
- 68% of those who incurred student loan debt were still paying them.
- 42% of those still paying agreed that their student loan debt was overwhelming.

These findings, explained in more detail below, illustrate why student loan debt must be included in any conversation about economic mobility.



First Generation (4.13 average EM score) respondents saw significantly higher EM scores than non-first generation students (3.35 average EM score).

However, First Generation respondents were also significantly more likely to still be paying student loan debt (76% yes) and to find that debt overwhelming (50% agree/strongly agree) compared to non-first generation students (64% yes and 37% agree/strongly disagree, respectively).



Asian (3.76 average EM score) respondents saw significantly higher EM scores than white (3.48 EM score) respondents.

Black or African American (4.01 average EM score) respondents saw significantly higher EM scores than white (3.48 average EM score) respondents.

At the same time, Black or African American respondents were significantly more likely to still be paying student loan debt (82% yes) and find that debt more overwhelming (55% agree/strongly agree) compared to those who identify as white (67% yes and 41% agree/strongly agree, respectively).

Latinx (3.91 average EM score) respondents saw significantly higher EM scores than white (3.48 average EM score) respondents.

And yet, Latinx respondents were significantly more likely to still be paying student loan debt (79% yes) and find that debt more overwhelming (42% agree/strongly agree) compared to those who identify as white (67% yes and 41% agree/strongly agree, respectively).



Non-binary gender identities (3.17 average EM score) respondents saw significantly lower EM scores than respondents who identified as women (3.46 average EM score) or men (3.71 average EM score).

Non-binary gender identities were significantly more likely to still be paying student loan debt (76% yes) and find that debt more overwhelming (53% agree/strongly agree) compared to those who identify as men (63% yes and 28% agree/strongly agree, respectively).

Women (3.46 average EM score) respondents saw significantly lower EM scores than respondents who identified as men (3.71 average EM score).

Women were significantly more likely to still be paying student loan debt (71% yes) and find that debt more overwhelming (49% agree/strongly agree) compared to those who identify as men (63% yes and 28% agree/strongly agree respectively).



Those who obtained their degree when they were between the ages of 17-24 (3.52 EM score) saw significantly lower EM scores than respondents who obtained their degree at 25 or older (3.68 average EM score).

Conversely, those who were 25 or older when they obtained their degree were significantly more likely to still be paying student loan debt (75% yes) and find that debt overwhelming (47% agree/strongly agree) compared to those who obtained their degree between the ages of 17-24 (67% yes and 40% agree/strongly agree, respectively).

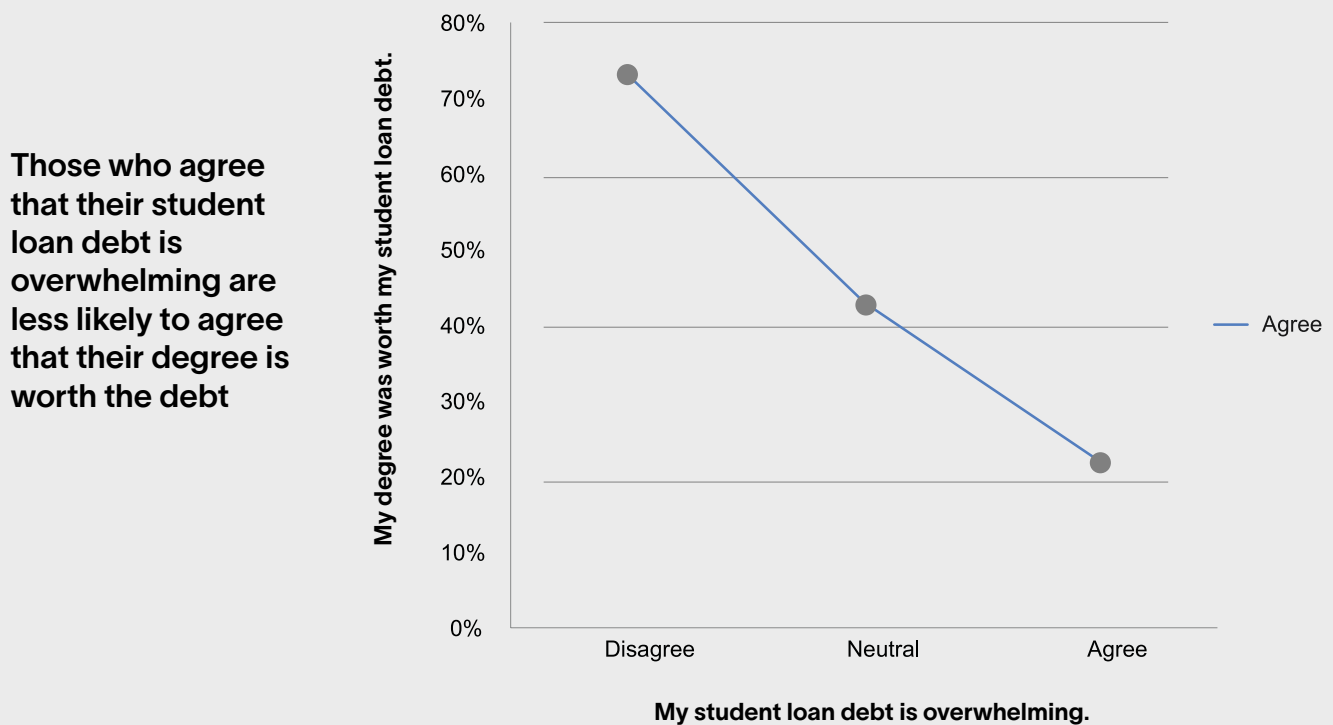
Factor scores are on a scale of 1-5



Viewing mobility using both the EM factor and student loan debt allows for a more nuanced, realistic understanding: those respondents in historically marginalized populations are showing progress in household income while still experiencing barriers to mobility through student loan debt.

Statistically, alumni's perception of ROI is not related to the EM factor. However, there is a negative relationship between those who find their student loan debt overwhelming and those who believe their degree was worth their student loan debt (Appendix E). **This negative relationship shows that those with overwhelming debt disagree that their degree is worth the debt.**

Figure 21: The connection between loan debt and value



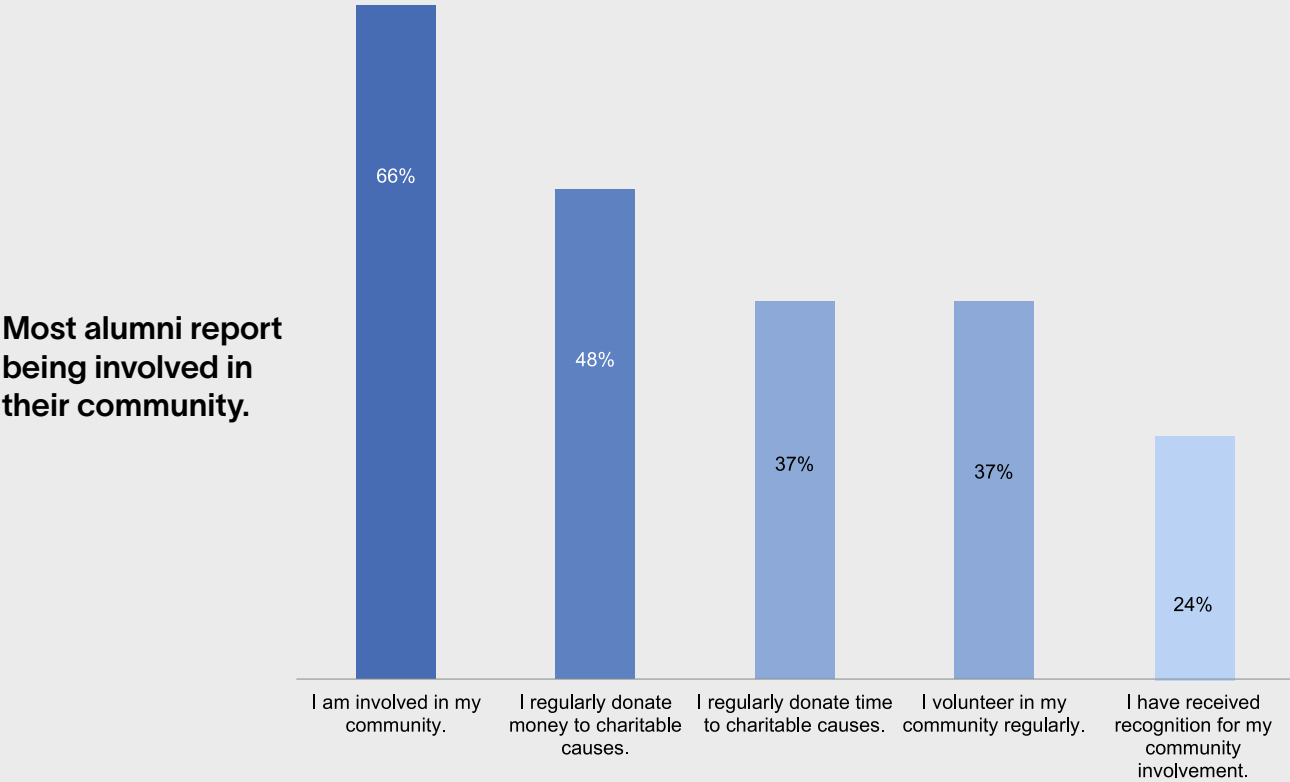
Given the myriad factors contributing to graduates' economic mobility (or lack thereof) after they leave college, there are obviously limits to how much an institution can do to directly impact scores in this area. However, institutions interested in boosting learners' long-term economic mobility can consider the following:

- Reducing the number of students who incur student loan debt, especially for historically marginalized populations.
- Ensuring student loan debt is manageable and/or able to be paid within 10 years post-graduation, especially for historically marginalized populations.

Factor #5 - Community Engagement

Community Engagement (CE) measures alumni’s level of connection and activity in their local community after graduation based on five questions (see Figure 22). The majority (66%) of respondents agree they are involved in their communities. However, far fewer respondents indicated they donate their time or money, which seems to indicate alumni are finding other ways to engage.

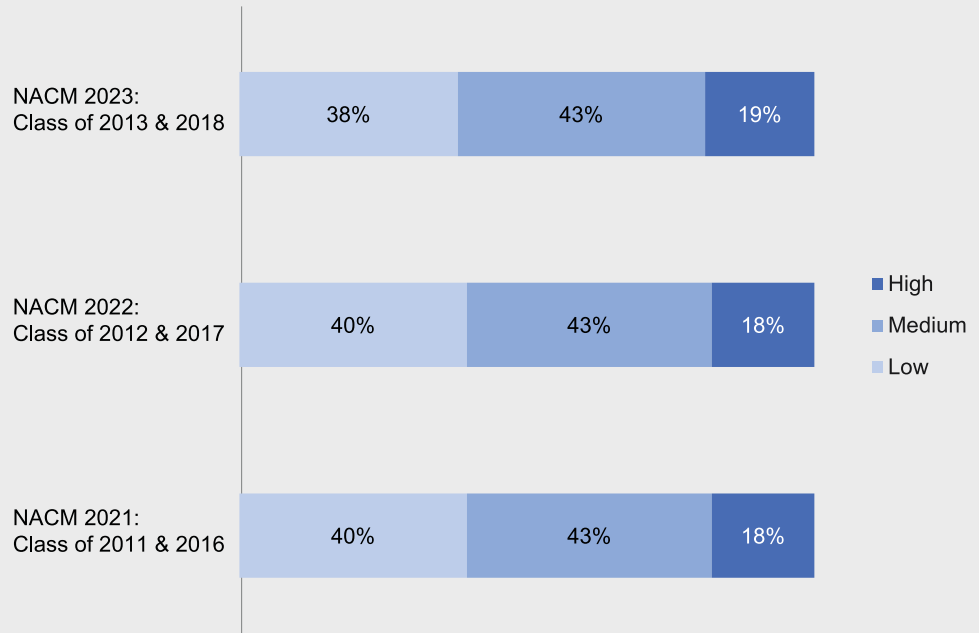
Figure 22: Components of Community Engagement



Overall CE scores have remained consistent over the past three years of NACM surveys.

Figure 23: Community Engagement trends over past 3 years

Community Engagement scores have remained consistent over time



CE has fewer equity gaps than any other factor. More information would be needed to determine whether this is primarily a result of respondents' experiences during college, or mainly the result of post-graduation factors.





No significant differences were found between first-generation and non-first-generation students.



Black or African American (3.18 average CE score) respondents saw significantly higher CS scores than white (3.15 average CE score) respondents.



No significant differences were found between different gender identity groups.



Those who obtained their degree when they were 17-24 years old (3.13 average CE score) saw significantly lower CE scores than respondents who obtained their degree at age 25 or older (3.24 average CE score).

Factor scores are on a scale of 1-5

No statistically significant relationships were found between CE and measures of ROI (Appendix E).

There were also no items on the NACM survey that showed a strong influence on CE. Those with some small degree of influence, listed below, may indicate that skills learned and connections made during college are more influential than specific activities (e.g. community engaged learning, participation in Greek organizations).

- My degree helped me gain leadership skills.
- My institution invested in my career.
- My institution helped me to network with alumni.
- My degree helped me gain customer service skills.
- My degree helped me gain negotiation skills.

Recommendations

The true value of data is its ability to inform action. This report is no exception. As you plan strategies for growing enrollment and improving learner outcomes and alumni satisfaction, here are a few recommendations:

Collect robust alumni data on your campus

Most campuses around the country lack in-depth alumni data beyond the first job. Pursuing a broader and longer-term perspective allows your institution to identify important trends related to alumni success, equity, and satisfaction, in accordance with your mission. To achieve this, consider combining objective [education-to-employment pathways data](#) with insight into [alumni sentiment and satisfaction](#) for a truly comprehensive picture of alumni outcomes that can inform institutional strategy.

Invest in preparing students for careers

Career preparation should extend beyond a first job to include skills alumni need throughout their career journey. Strategic Influencers such as helping learners create career plans, research career opportunities, and network with alumni and employers help learners build habits they will use for many years, post-graduation. Your institution can facilitate these experiences with [data-driven tools for career exploration](#) that help learners clarify the connection between their educational investment and their employment goals.

Strategically address equity gaps

To expand access and provide equitable opportunities to all learners, particular attention should be paid to connecting historically marginalized groups with resources for career exploration, advising, support services, and networking. In addition, examine student loan policies and practices to ensure these populations are graduating with manageable loan debt that is able to be paid off in 5 to 10 years.

NACM is part of the Lightcast suite of [data-rich solutions for higher education](#). Visit [Lightcast.io](#) to learn more, or [contact us](#) to share your unique priorities and talk with a specialist who can guide you to the best data for your institution and mission.



Appendices

Appendix A: Methodology

Face validity of NACM was established at a national convening in March 2019 where administrators and career leaders from 25 public and private colleges and universities came together to review, edit, and refine the instrument. In 2020, after two subsequent pilot administrations, item analysis established statistical validity of multiple constructs addressing the areas of interest.

RESEARCH THEMES

Factor scores range from 1.0 to 5.0 and are calculated by taking the average of the items in each factor for each respondent. Scores for a given factor are only calculated for respondents who answered all the questions in that factor. A low score on a research factor is defined as 1.0 – 2.9, a moderate score is defined as 3.0 – 3.9, and a high score is defined as 4.0 – 5.0.

A factor analysis was conducted in April 2021 for the five NACM 2020 research themes using maximum likelihood extraction and direct oblimin rotation. All factors had good reliability ($\alpha > .80$). The final model had good fit and residual statistics: CFI = .95, RMSEA = .05. The resulting structure is as follows:

- Career Pathway Preparation ($\alpha = .85$)
- Career Satisfaction ($\alpha = .91$)
- Community Engagement ($\alpha = .83$)
- Economic Mobility ($\alpha = .90$)
- Institutional Career Investment ($\alpha = .90$)

In March 2024, a confirmatory factor analysis was conducted for the five-factor NACM 2020 model using maximum likelihood estimation. All factors had good reliability ($\Omega > .80$). The final model had good fit and residual statistics: CFI = .95, RMSEA = .05, SRMR = .04. One change was made to the factor structure as a result of this testing. Question 31, “My salary is enough to pay my bills every month,” did not load strongly into the Career Satisfaction factor. The factor was found to be stronger when re-tested excluding that question. Analysis from this report reflects that change. Reliability estimates for the five-factor model are as follows:

Career Pathway Preparation ($\Omega = .86$)
Career Satisfaction ($\Omega = .91$)
Community Engagement ($\Omega = .84$)
Economic Mobility ($\Omega = .89$)
Institutional Career Investment ($\Omega = .90$)



Appendix B: Demographics

The report is based on the 9,067 respondents who received undergraduate (bachelor's) degrees from 34 partner institutions.

Graduation Cohort		
Category	Count	Percent
2013	3,867	43%
2018	5,200	57%
First-Generation Status when Obtaining Degree		
Yes	2,007	22%
No	5,968	66%
Prefer not to respond	49	0.5%
Unknown	1,043	11.5%
Race/Ethnicity		
Note: respondents could select all that apply, therefore percentages will add up to more than 100%.		
Asian	636	7%
Black or African American	360	4%
Latinx	458	5%
White	6,584	73%
Other races	183	2%
Prefer not to respond	198	2%
Unknown	1,096	12%
Gender		
Non-binary gender identities	196	2.2%
Woman	4,700	52%
Man	3,084	34%
Prefer not to respond	136	1.5%
Unknown	951	10.5%
Age when obtaining degree		
17-24 years old	6,658	73%
25 years old or older	1,485	16%
Prefer not to respond	37	<1%
Unknown	907	10%



Appendix C: Equity Gaps Summary

✓ = Statistically significantly lower than the comparison group

	Career Preparation	Institutional Career Investment	Career Satisfaction	Economic Mobility	Community Engagement
First Generation compared to not-first generation	✓	✓	✓		
Asian compared to white			✓		
Black or African American compared to white	✓		✓		
Latinx compared to white		✓	✓		
Non-binary gender identities compared to women	✓	✓	✓	✓	
Non-binary gender identities compared to men	✓	✓	✓	✓	
Women compared to men			✓	✓	
Obtained degree at 17-24 years old			✓	✓	✓
Obtained degree at 24 years old or older					



Appendix D: Strategic Influencers Summary

Up to ten strategic influencers are included for each research factor. All influencers listed were found to have a statistically significant contribution.

	Career Preparation	Institutional Career Investment	Career Satisfaction	Economic Mobility	Community Engagement
Institution Invested in career	X	X	X	X	X
Understand career opportunities	X	X	X	X	
Create a career plan	X	X	X	X	
Envision my career options	X	X	X	X	
Career & self-development skills	X	X	X	X	
Network with employers	X	X			
Network with alumni		X			X
Career Advice from Career Services		X		X	
Leadership Skills	X	X			X
Career Advice from Academic Advisor		X			
Professionalism skills	X				
First job relate to career goals	X		X	X	
Equity & Inclusion Skills				X	
Decision making skills	X			X	



Appendix E: Correlations with Return on Investment Measures

Pearson's Correlation Coefficients					
	Career Preparation	Institutional Career Investment	Career Satisfaction	Economic Mobility	Community Engagement
My degree was worth the tuition	0.771**	0.523**	0.397**	0.248**	0.198**
My degree was worth my student loan debt	0.614**	0.444**	0.372**	0.264**	0.173**
I am satisfied with my educational experience	0.907**	0.585**	0.437**	0.224**	0.167**
**Significant at $p < .001$					

Pearson's Correlation Coefficients	
	I am overwhelmed by my student loan debt
My degree was worth the tuition	-0.361**
My degree was worth my student loan debt	-0.529**
I am satisfied with my educational experience	-0.162**
**Significant at $p < .001$	



