2021 STRADA OUTCOMES SURVEY

STUDENT OUTCOMES BEYOND COMPLETION

OCTOBER 27, 2021
An educational credential after high school has the potential to be the most powerful way to equitably help Americans thrive in their careers and lives. The baccalaureate degree remains the surest path to economic mobility, employment stability, and a host of associated social benefits. This is true for first-generation students, those who struggle to afford education, and especially for students of color.

In spite of this, public confidence in the value of credentials and degrees after high school is eroding. Students from all walks and stages of life increasingly doubt that a four-year education will be worth the time, effort, and money. As a result, enrollments are decreasing, and students, learners, and employees are missing out on the significant advantages that education provides.

Educators and policymakers understand that they need to do everything they can to deliver a valuable, quality experience for our next generation of workers, leaders, and citizens. One group that has a special understanding of the outcomes that their education helped produce is alumni. They have critical insights into how their education has helped change their lives well beyond simple metrics like income.

---

We created Strada’s Outcomes Survey to learn directly from alumni about the ways education has influenced their lives. This survey is an essential tool to help educators and policymakers better understand how to ensure that education after high school can help students to get a good job, do meaningful work, contribute to their communities, and lead a fulfilling life.

The survey builds upon Strada’s deep experience in academic research—and in particular its work to gain insights into student perspectives—so that institutions and decisionmakers can have valuable tools to help meet students’ needs.

This report shares findings from Strada’s 2021 nationally representative benchmark study of more than 3,300 alumni who completed bachelor’s degrees since 2001. The survey provides insights into whether higher education is delivering on the outcomes alumni seek, by examining alumni perceptions of benefits in five key dimensions: value, quality of life, career satisfaction, skill development, and affinity. To understand how undergraduate experiences connect to postgraduation outcomes, alumni provided insights into a wide variety of questions, including:

- What were they seeking when they enrolled, and how did their education deliver?
- What aspects of their education were most valuable in their lives after graduation?
- Which skills did they develop, and how are a variety of skills valued in their workplace?

Results presented are from the Strada Education Alumni Outcomes national benchmark survey. Data are representative of alumni who earned a bachelor’s degree between 2001 and 2020 with regard to geography, gender, ethnicity, age at graduation, school type, and major. Data were collected via an online survey between March 22 and April 30, 2021, with a total sample size of 3,309.
1. Education Goals are Interconnected

Students’ education goals are multidimensional, encompassing learning, career advancement, and personal growth.

2. Benefits Realized—Somewhat

At least three-quarters of alumni report they experienced at least one of three postgraduation benefits: an earnings benefit, feeling their education was worth the cost, or achieving their goals. However, only half realized all three of these outcomes.

3. The Equity Gap

Across most findings, there are significant equity gaps along race, gender, and other dimensions. Women, first-generation students, and alumni of color were less likely to experience postgraduation benefits.

4. High Ratings for Professors and Academics

Alumni are most likely to rate their classes and professors as valuable to them. Looking back, more than three in four alumni found them extremely or very valuable. Connections to careers were much less common, but the alumni who had experiences connecting their education to career preparation reported better overall outcomes. These alumni earned more money and were significantly more likely to believe their education was worth the cost and helped them to achieve their goals.

5. Relevance Matters

Alumni who report they developed in-demand professional skills are more likely to believe their education helped them achieve their goals. This pattern is consistent across all fields of study, from visual and performing arts to accounting and engineering.
RECOMMENDATIONS

This research adds to the growing evidence that people pursue higher education for a variety of reasons—to secure a good job, do meaningful work, contribute to their communities, and lead a fulfilling life.

In order to provide education that meets these important needs, higher education must establish a new norm: defining success as the benefits students receive beyond completion. We recommend the following approaches to ensure that education and training deliver the outcomes that students seek.

MEASURE OUTCOMES
Institutions should consider using the following Beyond Completion measures in combination to assess the outcomes of their graduates.

- **Overall Value:** Students report that their education was worth the cost.
- **Financial Value:** Graduates earn an annual personal income of at least $40,000.
- **Goal Achievement:** Students report that their education helped them achieve their goals.

REDUCE EQUITY GAPS
Across these measures, institutions should place a priority on reducing equity gaps across race, gender, and other dimensions. Alumni of color, first-generation students, and female graduates all report less favorable outcomes than their counterparts.

CONNECT CAREER
Improve career connections to improve outcomes for all students. Experiencing stronger career connections was strongly correlated with better outcomes along all three Beyond Completion measures. This area showed significant room for improvement.

DEVELOP WORK SKILLS
Help students develop skills that are valued in the workplace to further improve student outcomes. The study shows a strong correlation between providing workplace skills such as digital literacy and meeting alumni outcome goals.
Strada’s previous research has revealed that students have three core reasons for pursuing higher education: career, income, and personal goals. This Outcomes Survey provides insights into the extent to which institutions are delivering on those aspirations.\(^3\)\(^4\)

Looking at the percentage of alumni who rated each of these three reasons as very or extremely important to them, we see that the most common motivations were career related:

- to be able to qualify for good jobs (87%)
- to gain skills to be successful in work (86%)
- to advance their careers (84%)

Slightly less prevalent were goals related directly to income:

- to be able to support myself and my family (82%)
- to make more money (72%)

Students also frequently cited personal goals, including:

- to learn new things (84%)
- to become the best person I can be (74%)
- to be a good role model (60%)


According to alumni, undergraduate education in America is exceeding expectations for personal growth but falling short on career preparation.

On average, institutions are exceeding alumni aspirations in areas of personal growth: to be a good role model (plus-13 percentage points), to learn new things (plus-9 percentage points), and to become the best person I can be (plus-4 percentage points). In three of the five career or income objectives, education experiences lagged slightly behind alumni aspirations.

Unfortunately, fewer alumni said that their education helped them to qualify for good jobs, advance their careers, or be able to support themselves and their families compared to the number of alumni who aspired to these goals. The pattern suggests that, according to alumni, undergraduate education in America is exceeding expectations for personal growth but falling short on career preparation. [See Figure 1]

**FIGURE 1. ALUMNI HAD MANY MOTIVATIONS FOR PURSUING EDUCATION**

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Extremely/very important reason for pursuing education</th>
<th>Strongly agree/agree that education helped with outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be able to qualify for good jobs</td>
<td>87%</td>
<td>84%</td>
</tr>
<tr>
<td>Gain skills to be successful in work</td>
<td>86%</td>
<td>87%</td>
</tr>
<tr>
<td>Advance in my career</td>
<td>84%</td>
<td>82%</td>
</tr>
<tr>
<td>Be able to support myself and my family</td>
<td>82%</td>
<td>80%</td>
</tr>
<tr>
<td>Make more money</td>
<td>72%</td>
<td>74%</td>
</tr>
<tr>
<td>Learn new things</td>
<td>84%</td>
<td>93%</td>
</tr>
<tr>
<td>Become the best person I can be</td>
<td>74%</td>
<td>78%</td>
</tr>
<tr>
<td>Be a good role model</td>
<td>60%</td>
<td>73%</td>
</tr>
</tbody>
</table>

**CAREER**

**MONEY**

**PERSONAL**

Only half of alumni are achieving success beyond completion. People don’t pursue higher education just to get a good job. They want to gain the tools that will help them live a more fulfilling life. While a majority of individuals reported a career outcome as the main reason for pursuing more education after high school, three-quarters of alumni are also motivated by an interest in personal improvement.

There has been growing momentum toward a focus on long-term value as the new goal for postsecondary education and training. However, financial outcomes are only a partial measure of real value. There is broad agreement that the value of education is about more than money in at least two fundamental ways: Individuals pursue education for both financial and non-financial reasons; and the benefits associated with education are both financial and non-financial in nature.

There has been growing momentum toward a focus on long-term value as the new goal for postsecondary education and training.
In our survey, most alumni who graduated over the past 20 years agree they experienced at least one of the Beyond Completion outcomes outlined in our recommendation. Seventy-five percent of alumni reported an annual income of at least $40,000; 75 percent said their education was worth the cost; and 80 percent said their education helped them to achieve their goals. However, only 52 percent of alumni believed they experienced a successful outcome on all three metrics.

**FIGURE 2. A FRAMEWORK FOR MEASURING POSTSECONDARY SUCCESS**

- **Income**: Income over $40,000*
  - 2021 participating institutions ranged from 84% to 94%

- **Worth the cost**: My education was worth the cost
  - 2021 participating institutions ranged from 82% to 90%

- **Achieved goals**: My education helped me to achieve my goals
  - 2021 participating institutions ranged from 87% to 87%

- **Success beyond completion**: Experiencing all three metrics
  - 2021 participating institutions ranged from 34% to 61%

We propose an enriched framework for measuring postsecondary education outcomes that includes three elements:

- Earning an annual personal income of at least $40,000.\(^6\)
- Agreeing that their education was worth the cost.\(^7\)
- Agreeing that their education helped them to achieve their goals.

---

* among those who chose to respond


---

\(^5\) Nine percent of alumni declined to give their annual personal income. The 75 percent are among those who responded to the question.

\(^6\) This represents approximately a 20 percent increase compared to median earnings for a high school graduate and is approximately 150 percent of the poverty line for a family of four.

\(^7\) The questions on “worth the cost” and “helped me to achieve my goals” each had a five-point response scale, ranging from strongly disagree to strongly agree.
There are large racial disparities in the extent to which alumni say that education fulfilled their aspirations, particularly between Black alumni and white alumni. While Black alumni were more likely than white alumni to say that career-related goals were extremely or very important to them, they were much less likely to say that their education had helped them to achieve these goals.

The largest Black-white gaps are in the percentage who said their education helped them to advance their career (10 percentage points lower), to support themselves and their family (9 percentage points lower), or to become the best person they can be (10 percentage points lower). Such disparities signal that the focus on equity must extend beyond completion of a degree or credential to ensure that all graduates are able to realize the full benefits of education.

Looking at the Beyond Completion measures on page nine, there are significant variations across schools, fields of study, time since graduation, first-generation students, students of color, and gender, among other categories. The framework points to strengths and shortcomings in how well and how equitably higher education is serving students. [SEE FIGURE 3]
Alumni of color, first-generation alumni, and female graduates are less likely to report favorable outcomes than their counterparts.

Disparities in outcomes on the Beyond Completion measures mirror disparities in access and completion.

- Alumni of color are 10 percentage points less likely than their white peers to be earning more than $40,000, 9 percentage points less likely to feel their education was worth the cost, and 6 percentage points less likely to feel their education helped them to achieve their goals.
- First-generation students experience worse outcomes compared to their peers with college-educated parents, trailing by 13 percentage points in achieving income over $40,000; 6 percentage points in feeling education was worth the cost; and 8 percentage points in feeling that education helped them to achieve their goals. Females, who tend to outperform their male peers when it comes to college enrollment and completion, lag behind in Beyond Completion metrics. Females were 11 percentage points less likely than males to report earning over $40,000 or to say their education was worth the cost, and 10 percentage points less likely to say their education helped them to achieve their goals. [See Figure 4]
When combining the three factors in the Beyond Completion framework for examining outcomes, the disparities are even more stark. Alumni of color are 15 percentage points less likely than white alumni to experience all three successful outcomes, first-generation alumni 18 percentage points less likely than alumni with college-educated parents, and female alumni 25 percentage points less likely than male alumni.

The findings among alumni of color are particularly stark for Black alumni, who are 27 percentage points less likely than white alumni to report achieving all three outcomes. [SEE FIGURE 5]
The focus on equity must extend beyond completion of a degree or credential to ensure that all graduates are able to realize the full benefits of education.

Across all of these measures, greater focus is needed on reducing equity gaps across race, gender, and other dimensions. Alumni of color, first-generation students, and female graduates are all less likely to report favorable outcomes than their counterparts.

FIGURE 5. THE FULL FRAMEWORK REVEALS WIDER EQUITY GAPS BEYOND COMPLETION

-15%  
Students of color  
[compared to white students]

-18%  
First-generation students  
[compared to students who are not first-generation]

-25%  
Female students  
[compared to male students]

-27%  
Black-white gap

Alumni report that colleges and universities are providing valuable academic experiences. Eighty-two percent of alumni said their classes were very or extremely valuable, and 77 percent said the same about their professors.

While more than three-quarters of alumni rated their academic experiences positively, only half reported valuable experiences with internships, career and job placement, and career advising. Even fewer had work-study and mentoring experiences, or felt they were valuable. The data tell us that students either do not have sufficient opportunities or do not have high-quality experiences. The strong, positive predictive relationship between a student’s career connection experiences and experiencing all three of the Beyond Completion outcomes makes this set of opportunities a clear priority for improvement. Career connection is the one factor positively associated with all three of the Beyond Completion outcomes, and there is significant room for improvement in this domain.
Ways to Improve Beyond Completion Outcomes

What can colleges do to improve postgraduation outcomes for their students? How can they close equity gaps? Through statistical analysis we identified key undergraduate experiences linked to positive outcomes. We grouped the undergraduate experiences that alumni rated for their value and identified three categories: academics, career connection, and community. Ratings on the items in each of these three factors were averaged to create an index for each category.8 [SEE FIGURE 6]

To explore the relationships between undergraduate experiences and outcomes Beyond Completion, we included these category indices and key demographic items in a series of logistic regression models to assess the strongest predictors of the three Beyond Completion outcome metrics: earning more than $40,000; feeling that education was worth the cost; and feeling that education helped them to achieve their goals.

8 Each item was scored on a scale of 0-5: 0=not applicable; 1=not at all valuable; 2=not very valuable; 3=somewhat valuable; 4=very valuable; 5=extremely valuable.
Predictors of Success Beyond Completion

Regression models reveal that reporting strong career connection experiences while an undergraduate student was a significant predictor of better outcomes on all three of the Beyond Completion framework factors. Academics was a predictor of two out of three [worth the cost and achieved goals]. Community, or a sense of connectedness to other students and campus life, was positively and significantly related to one outcome [achieved goals].

As an example, the chart below models the expected influence of connection to career on Beyond Completion outcomes for a first-generation female student of color holding mean-level ratings for academics and community. Going from no career connections to extremely valuable career connections, the student’s predicted likelihood of earning more than $40,000 per year increases by 37 percentage points, their likelihood of believing their education was worth the cost increases by 29 percentage points, and their likelihood of believing their education helped them to achieve their goals increases by 27 percentage points.

In addition, several demographic variables were significant predictors of these outcomes, as summarized in the table below. [See Appendix for full regression results.]

- Alumni with student loans were much less likely to believe that their education was worth the cost or helped them to achieve their goals.
- Male and white alumni were more likely to be earning more than $40,000 per year and to feel their education was worth the cost.
- First-generation students and more recent graduates were less likely to be earning more than $40,000.
- More recent graduates (those who completed within the past 10 years) were less likely than those who completed more than 10 years ago to believe their education was worth the cost.

**FIGURE 7. THE INFLUENCE OF CAREER CONNECTIONS ACROSS ALL BEYOND COMPLETION MEASURES**

Estimated using logistic regression models with the following independent variables: academics, navigation, support, career connection, race, gender, first-generation status, graduation year, student loans. Source: 2021 Strada Alumni Survey, bachelor’s degree graduates 2001-2020, n=3,309.
Improve career connections to improve outcomes for all students. Experiencing stronger career connections was strongly correlated with better outcomes along all three Beyond Completion measures. This area showed significant room for improvement.

### Figure 8. Academic Ratings Are High, With Room for Improvement on Career Connections

<table>
<thead>
<tr>
<th>Connection to Career</th>
<th>Not applicable</th>
<th>Not at all/Not very valuable</th>
<th>Somewhat valuable</th>
<th>Very valuable/Extremely valuable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes</td>
<td>14%</td>
<td>82%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professors</td>
<td>18%</td>
<td>77%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project-Based Learning</td>
<td>11%</td>
<td>7%</td>
<td>23%</td>
<td>60%</td>
</tr>
<tr>
<td>Career Advising</td>
<td>13%</td>
<td>15%</td>
<td>22%</td>
<td>50%</td>
</tr>
<tr>
<td>Career and Job Placement</td>
<td>17%</td>
<td>14%</td>
<td>19%</td>
<td>50%</td>
</tr>
<tr>
<td>Research Experience</td>
<td>19%</td>
<td>8%</td>
<td>19%</td>
<td>54%</td>
</tr>
<tr>
<td>Mentoring</td>
<td>23%</td>
<td>11%</td>
<td>21%</td>
<td>47%</td>
</tr>
<tr>
<td>Internships</td>
<td>26%</td>
<td>8%</td>
<td>15%</td>
<td>50%</td>
</tr>
<tr>
<td>Work Study</td>
<td>30%</td>
<td>7%</td>
<td>13%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Another opportunity for colleges and universities to improve alumni outcomes Beyond Completion is to place a priority on developing skills that are valued in the labor market. The survey asked respondents about the degree to which their undergraduate education helped them develop the 11 skills most frequently included in job postings nationwide. They also rated the value of these skills in their current employment.

There is good alignment between the development and the workplace value of the top skills. Alumni rated colleges and universities strongest at helping them develop their ability to learn new things, think critically, and solve problems. Writing is the only skill that more alumni reported was well-developed than reported as being valuable in the workplace. The greatest gaps between alumni perceptions of skill development and workplace value are found in digital literacy (18 percentage points), teamwork (16 percentage points), verbal communication or speaking (16 percentage points), leadership (15 percentage points), and project management (15 percentage points). [SEE FIGURE 9]
Embedding these valuable skills into a degree program can significantly improve Beyond Completion outcomes, especially for certain majors. For example, only 62 percent of visual and performing arts majors who did not feel they developed digital literacy skills agreed that their education helped them to achieve their goals. But the figure increased by 25 percentage points when they felt their education did help them develop those skills. Similarly, biology majors who developed digital literacy skills were 25 percentage points more likely to report that their education helped them achieve their goals compared to biology majors who didn’t develop those skills. For business majors, the difference was 23 percentage points.

Data analysis and statistics were another skill set associated with better Beyond Completion outcomes. Again, the majors receiving the biggest boost for these skills were visual and performing arts, biology, and business (respectively, 34, 32, and 29 percentage points more likely to have students say their education helped them to achieve their goals). [SEE FIGURE 10]
When it comes to self-assessment of skill development, the biggest gaps are not racial, but gender based. Women consistently report that they received less skill development than men, particularly for the skills that are associated with bigger boosts in Beyond Completion outcomes. Women are less likely than men to rate their skills as being developed “a great deal” or “quite a bit” when it comes to project management (minus-18 percentage points), data analysis and statistics (minus-18), digital literacy (minus-15) and math (minus-13). Some of this difference appears to be related to gender differences in fields of study. For example, male alumni made up more than 70 percent of engineering majors and computer science majors in the survey. Yet female and male computer science majors rated their digital literacy skills very similarly, and female and male engineering majors rated the development of their math skills on par with one another.

**Improve alumni outcomes by placing a priority on developing skills that are valued in the labor market.**

---

**FIGURE 10. GOAL ACHIEVEMENT IS LINKED TO DEVELOPING IN-DEMAND SKILLS**

![Graph showing goal achievement linked to developing in-demand skills.](image)

At the same time, if differences in major completely explained gender differences in skills assessment, we might expect women to rate themselves more highly than men in skills that are related to female-majority majors, such as English or visual and performing arts. Yet on average female graduates rate their skill development lower than their male peers do for every skill on the survey, including skills such as teamwork, creativity, and writing. This discrepancy merits further exploration into how to better serve female students in both acquiring valuable skills and having confidence in their mastery.

Help students develop skills that are valued in the workplace to further improve student outcomes. The study shows a strong correlation between the development of some workplace skills such as digital literacy, data analysis, and meeting alumni outcome goals.
CONCLUSION

Colleges and universities serve students best when they help students not only to enroll and complete degrees, but also to achieve the goals for personal growth and career success that are so often the prime motivation for seeking a college education.

An enriched framework for measuring the success of higher education starts with completion, integrates well-established economic considerations, and includes alumni feedback about whether their education provided value and helped them achieve their goals. By using this framework to examine alumni outcomes beyond completion, we identify strengths, inequities, and promising pathways for progress.

Unfortunately, just as we continue to see disparities in college access and completion, there are also large disparities in outcomes beyond completion, particularly for students of color, first-generation students, and women. This research makes it clear that increased access to, and recognition of, experiences that connect undergraduate education to preparation for career success must be a priority.

This can be done through work-based learning opportunities such as internships and work-study, career advising, mentoring, and ensuring in-demand skills are embedded in the curriculum. As institutions build on their existing academic strengths while remaining relevant and ensuring students can achieve their stated goals, they will be better able to fully, and equitably, deliver on the full promise of higher education.

AUTHORS

Dave Clayton, Ph.D.
Senior Vice President

Nichole Torpey-Saboe, Ph.D.
Director of Research
### APPENDIX

Predictors of "Worth the cost" | Predictors of "Helped me achieve my goals" | Predictors of income more than $40,000
--- | --- | ---
Academics | 0.81** | 0.81** | −0.11
  | (0.09) | (0.08) | (0.08)
Community | 0.03 | 0.20** | 0.05
  | (0.06) | (0.06) | (0.06)
Career connection | 0.25** | 0.30** | 0.31**
  | (0.07) | (0.07) | (0.07)
White | 0.30** | 0.25* | 0.22*
  | (0.12) | (0.13) | (0.13)
First generation | 0.00 | −0.11 | −0.37**
  | (0.14) | (0.15) | (0.13)
Graduated last 10 years | −0.28** | −0.04 | −0.94**
  | (0.12) | (0.13) | (0.13)
Male | 0.34** | 0.22 | 0.93**
  | (0.13) | (0.14) | (0.13)
Loans | −0.88** | −0.40** | −0.04
  | (0.13) | (0.14) | (0.13)
[Constant] | −2.19** | −2.78** | 0.75**
  | (0.30) | (0.33) | (0.30)

*p<0.1, ** p<.05