

Education Paths to Careers: How High School Students' Expectations Compare to Career Needs

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Introduction

As students prepare to graduate from high school, many are considering postsecondary education or envisioning a specific career path. They may also be trying to determine which educational pathway will best support their goals. Choosing the best path can be challenging, especially as the education landscape and the workforce continue to shift, with postsecondary institutions offering more degree and credential options than in the past, as well as employers seeking to meet labor market needs more quickly while still ensuring a skilled and appropriately educated workforce. These changes make it more critical than ever to understand how well students' educational expectations align with their career plans and to support them in identifying the education needed for the careers they intend to pursue.

Postsecondary enrollment has increased across degree types, with bachelor's programs up 2.1%, associate's programs up 6.3%, and certificate programs up 4.8% between spring 2024 and spring 2025 (National Student Clearinghouse, 2025). Longer-term projections from Irwin et al. (2024) also indicate further increases by the 2030–2031 academic year: Associate's degrees are expected to rise by 38%, bachelor's by 20%, master's by 17%, and doctorates by 16%. Meanwhile, rising college costs, uncertainty about the return on investing in a degree, and employers' growing need to fill high-demand jobs more quickly have contributed to rapid growth in alternative postsecondary education options. For example, more colleges are shortening some traditional 4-year bachelor's degree programs to 3 years, trimming required credits for completion and reducing the time it takes students to enter the workforce (Marcus, 2026). Dual mission institutions—those offering combinations of credentials, associate's degrees, and bachelor's degrees—are also becoming more common (Committee for Economic Development, 2024).

Enrollment in certificate and credential programs rose nearly 10% in 2024 and has increased 29% since 2019 (Irwin et al., 2024). Students also have access to more nondegree credentials, including micro-credentials—earned through short programs targeting specific skills—and certificates, with more than one million such credentials offered nationwide by over 50,000 providers (Credential Engine, 2022). Further, apprenticeships are on the rise, with U.S. registered apprenticeships increasing by 3.9% from 2024 to 2025 and 678,000 active apprentices overall (U.S. Department of Labor, Employment and Training Administration, 2025). These developments illustrate an increasingly complex postsecondary landscape, one that

offers students more choices but also greater challenges in determining which educational opportunities can move them closer to their career goals.

As for the education necessary for occupations, nearly three quarters (72%) of all 2031 projected jobs in the U.S. economy will require workers to have at least some credential or training beyond high school, such as a certificate, associate's degree, or bachelor's degree or higher (Carnevale et al., 2023). Additionally, in 11 out of 13 industries (the exceptions being construction and natural resources) identified by the Georgetown University Center on Education and the Workforce, more than half of annualized job openings (53%–84%) will require workers with middle skills (education and training beyond a high school diploma but less than a 4-year bachelor's degree, typically including associate's degrees, vocational certificates, and apprenticeships) or a bachelor's degree or higher (Carnevale et al., 2023). Further, occupations that need more education beyond high school for entry are projected to grow faster than average between 2024 and 2034, outpacing the growth of occupations that require less education (U.S. Bureau of Labor Statistics, 2025). Taken together, these projections highlight the increasing importance of recognizing what education will better prepare students for future workforce demands and potentially accelerate their transition to work.

Both high school students and their parents believe that education beyond high school is necessary. According to a 2023 report, 84% of high school students plan to pursue some form of postsecondary education, 90% intend to pursue education aligned with a career path, and 63% are open to a wider range of options beyond a traditional 4-year degree (ECMC Group, 2023). According to a report by Gallup and the Lumina Foundation, parents share similar views—75% of U.S. parents prefer that their children pursue education after high school, with 40% preferring a 4-year degree, 19% preferring a 2-year degree, and 16% preferring a certificate program (Gallup, 2025a). Despite this interest, less than half of Gen Z high school students (ages 16–18) report knowing “a great deal” about postsecondary degree or certificate options (10%–43%; Gallup, 2025b). Also, only 13% of Gen Z teens consider themselves prepared to choose their educational path after high school (ECMC Group, 2023). Although 90% of teens trust their parents for advice on postsecondary pathways, that advice is limited. Only 51% of parents reported knowing a great deal about earning a bachelor's degree, and roughly one third reported knowing a great deal about earning an associate's degree (35%) or completing a certificate program (34%). Results from a Britebound (2026) parent survey found that only 4 out of 10 parents strongly agreed that they were confident about helping their children navigate a nondegree education pathway. Generally, parents with higher levels of postsecondary education indicate that they are more likely to know a great deal about these levels than parents who have lower levels of education, while parents who have earned a bachelor's degree, associate's degree, or certificate are the most likely to say that they know a great deal about pursuing those same credentials (Gallup, 2025b). Given students' interest in a wider range of postsecondary options and the gaps in their understanding of these pathways, it is essential that they gain a clearer sense of the education needed for different careers.

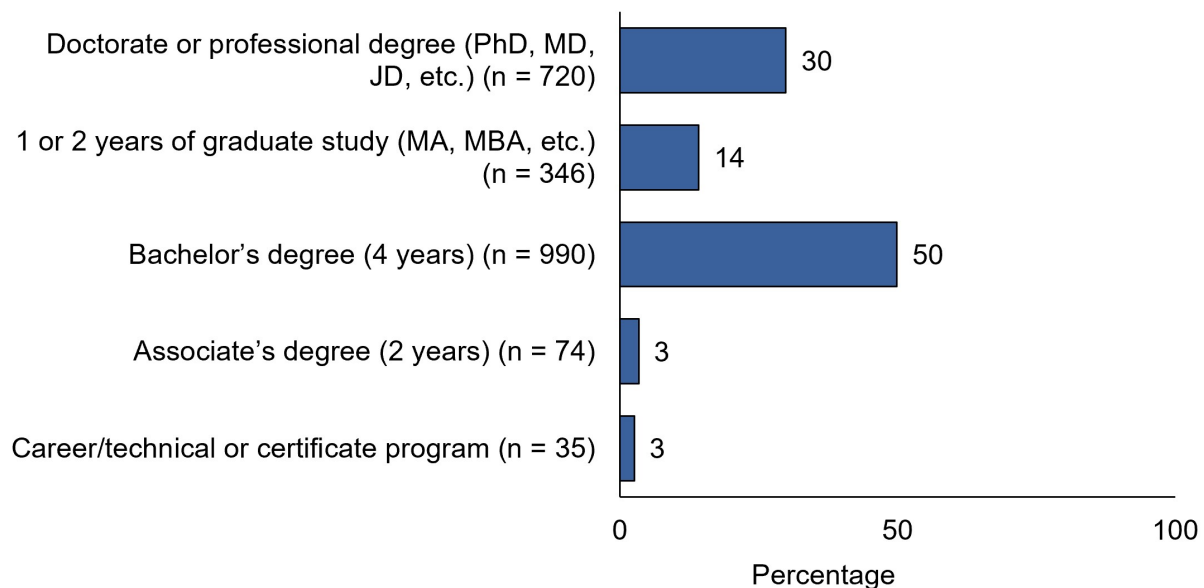
While many high school students expect to pursue additional education after graduation, it remains unclear whether the education levels they believe are necessary align with the levels typically needed for the occupations they plan to enter. Understanding the extent to which

students' educational expectations match the education needed for careers provides valuable insight into how we can better support students as they navigate their education-to-career pathways.

To explore this alignment, we surveyed a random sample of high school students in Grades 11 and 12 who registered for the December 2024 or February 2025 ACT national test date. At the time of ACT registration, all participating students had selected a future occupation they planned to pursue from a provided list; students who did not indicate a planned occupation or who reported being undecided were excluded from the study. As part of a larger project, one question in the online survey asked students to identify the level of education they believed was needed to enter their planned career. In this brief, we share findings from 2,184 high school students about the education they thought they needed and how their expectations aligned with the typical education needed for their planned careers (see the technical appendix for more details about the student sample and the survey question).

Students' Education Expectations Partially Match the Education Needed for Their Future Careers

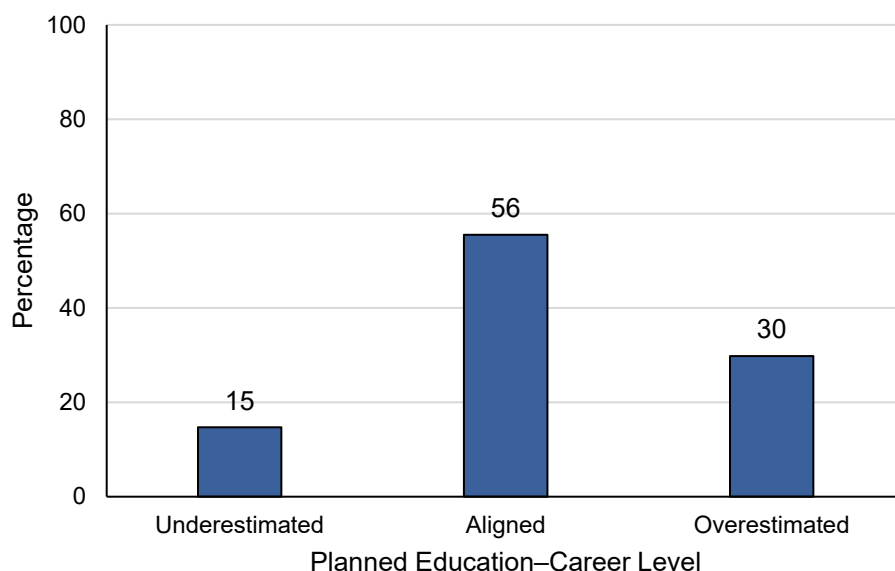
The surveyed students identified a wide range of education levels they believed were necessary for their planned careers.ⁱ The most commonly selected option was a bachelor's degree, with half of the students selecting this education level (Figure 1). Nearly one third of the students (30%) thought they would need a doctoral or professional degree. A smaller percentage (14%) selected graduate-level study. Even fewer identified shorter-term education options, such as an associate's degree (3%) or a career/technical or certificate program (3%), as necessary for their planned career.

Figure 1. Percentages of Students Reporting Education Level Needed for Their Planned Career

Note. The *n* counts are unweighted sample sizes, while the percentages were calculated after weighting (see the technical appendix for more details about weighting).

We then compared the education levels students thought they needed for their planned careers with the typical education levels needed for entry into these careers as suggested by the 2024–2034 National Employment Matrix,ⁱⁱ a detailed 10-year industry/occupational employment data matrix that was produced by the U.S. Bureau of Labor Statistics (BLS) Employment Projections program and includes data about typical education levels. We found variation in the overall degree of alignment between the education levels students considered necessary for their planned careers and the typical levels needed for entry into those careers. Just over half of the students (56%) reported an education expectation that was aligned with the level needed for their intended occupation (Figure 2). Nearly one third (30%) believed their future career demanded more education than the typical level indicated by the labor market data, while 15% underestimated the education needed for their planned career.

Figure 2. Overall Percentages of Students' Expected Education Levels Compared to the Education Needed for Entering Their Planned Careers

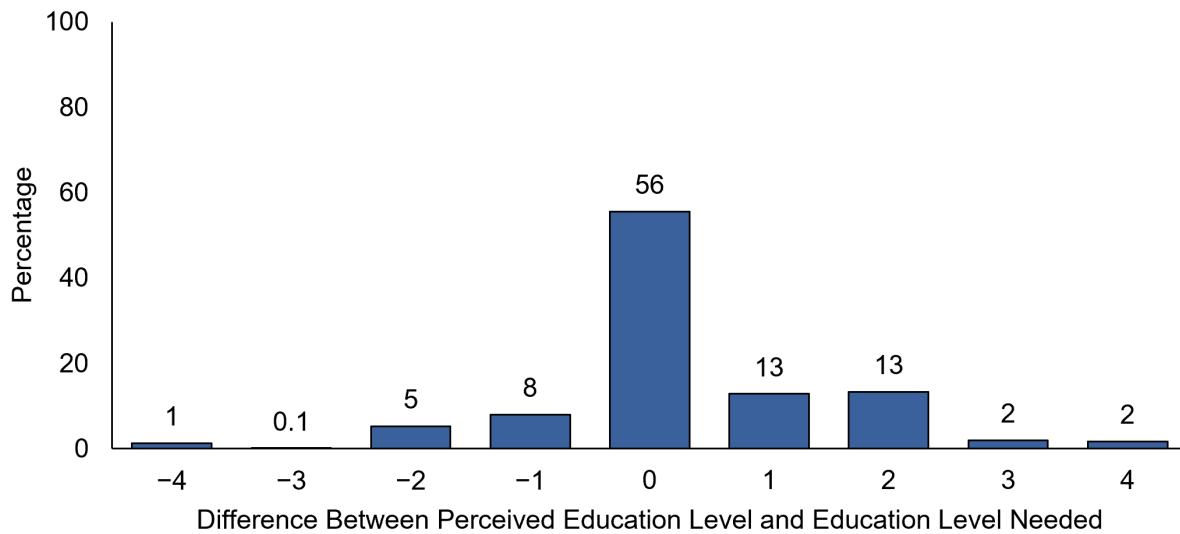


Note. Percentages were calculated after weighting and may not add to 100% due to rounding. Unweighted $n = 2,184$.

Students Reveal Where Education Expectations Fall Short of—or Go Beyond—Future Career Needs

While just over half of the students (56%) had alignment between their education expectations and the typical education needed for their careers, nearly half expected to need an education that diverged—sometimes by multiple levelsⁱⁱⁱ—from what is needed to enter their planned careers (Figure 3). Among the 15% of students who underestimated the necessary education, 8% did so by one education level, and another 5% did so by two levels. Only 1.1% thought they would need an education that was three or four levels lower than necessary. For the 30% of students who overestimated the education needed, 13% exceeded this education by one level, and another 13% exceeded it by two; the remaining nearly 4% expected to need three or four levels more education than necessary for their future careers.

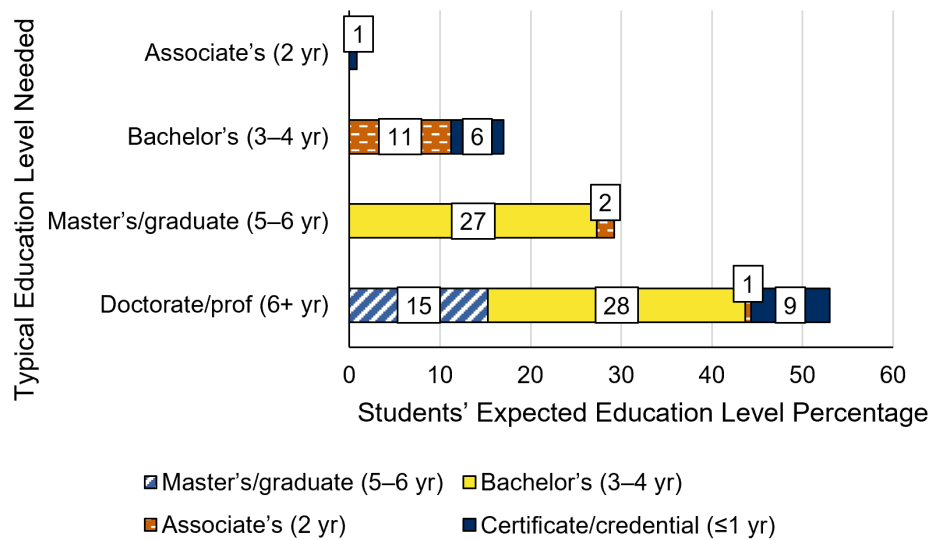
Figure 3. Differences Between Perceived and Actual Education Levels Needed for Students' Future Careers



Note. Percentages were calculated after weighting. A 0 indicates no difference between students' education expectations and the typical education needed. A 1 or -1 indicates a difference of one education level, a 2 or -2 indicates a difference of two education levels, etc. Positive numbers reflect overestimation and negative numbers underestimation.

We further examined the misalignment between the education levels students believed necessary for their planned careers and the levels typically needed. Among students who underestimated the education level, a majority (55%) believed that a bachelor's degree would be sufficient for careers that typically needed more advanced preparation—27% planned for careers needing a master's degree, and 28% planned for careers needing a doctoral or professional degree (Figure 4). For example, two students believed that a bachelor's degree would be enough to become an occupational therapist and a lawyer even though these careers typically need a master's degree and a professional degree, respectively, according to the BLS data source. Another 15% of these students expected a master's degree was needed when their intended careers called for a doctoral or professional degree. Additionally, 11% of the students aiming for careers that needed a bachelor's degree believed that an associate's degree would be adequate; examples of these occupations include industrial engineer and medical laboratory technologist. Underestimation was especially pronounced among students who believed that a certificate or other nondegree credential would be sufficient for careers needing a bachelor's degree (6%), such as marketing management, or a doctoral/professional degree (9%), such as clinical psychologist.

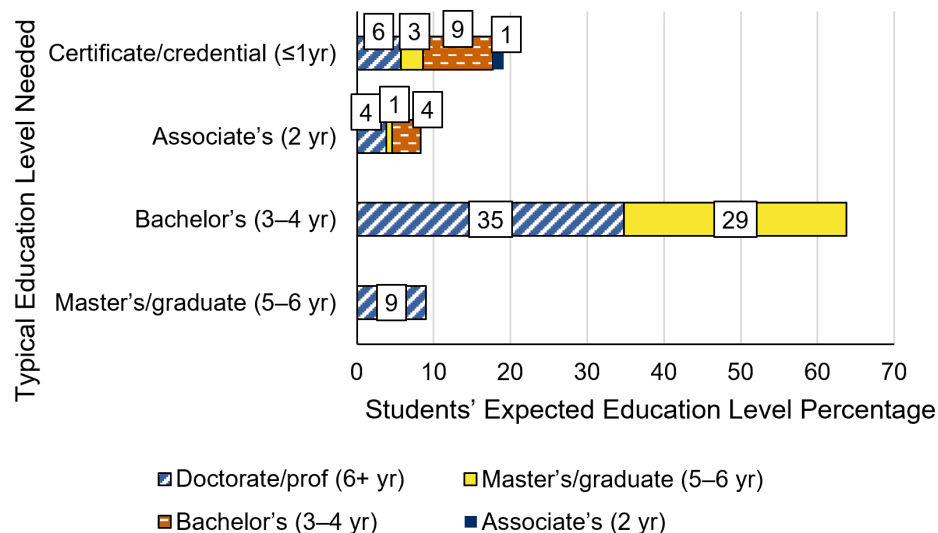
Figure 4. Patterns of Misalignment Among Students Who Underestimated Education Levels Needed for Their Future Careers



Note. Percentages were calculated after weighting. Unweighted $n = 293$.

Among students who overestimated the education needed for their intended careers, many anticipated substantially more education than is typically needed for career entry. As shown in Figure 5, nearly two thirds (64%) of these students believed that they needed graduate-level preparation for planned careers needing only a bachelor's degree, with 29% expecting to need a master's degree and 35% anticipating the need for a doctoral or professional degree. For example, two students expected that a master's degree was needed to become an accountant and a meteorologist even though these careers typically need a bachelor's degree. Similarly, two students pursuing careers as a data management technologist and a health services administrator believed these careers needed doctoral or professional degrees, whereas a bachelor's degree is typically needed. Overestimation also occurred for careers that typically need an associate's degree: 4% of the students believed a doctoral or professional degree was necessary, 1% expected to need a master's degree, and 4% anticipated needing a bachelor's degree. For instance, students interested in associate's degree-level careers such as legal assistant, dental hygienist, and physical therapy assistant thought that these careers needed doctoral/professional, master's, and bachelor's degrees, respectively. Even for occupations that typically need shorter-term credentials, some students anticipated significantly higher levels of education: 9% believed a bachelor's degree was needed, 3% a master's degree, and 6% a doctoral or professional degree. Notably, three students planning to become medical assistants each expected to need a different level of education—a bachelor's degree, a master's degree, and a doctoral degree—despite this career typically requiring a credential program.

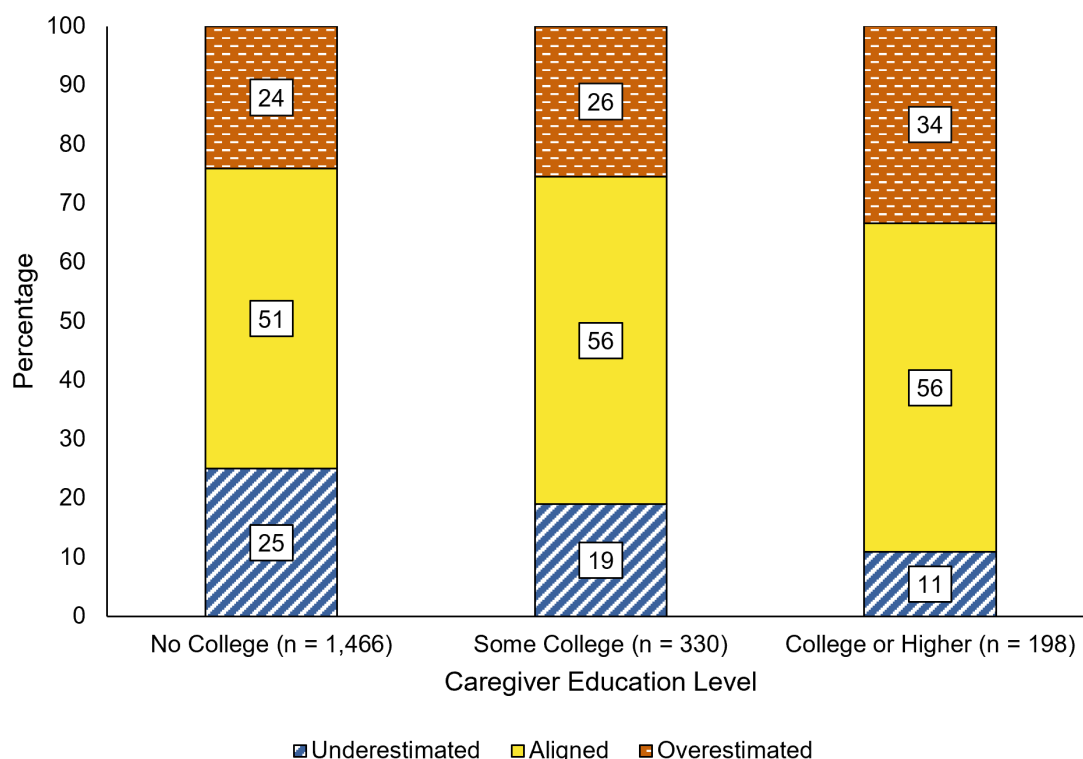
Figure 5. Patterns of Misalignment Among Students Who Overestimated Education Levels Needed for Their Future Careers



Note. Percentages were calculated after weighting. Unweighted $n = 702$.

Students' Education Level Expectations Related to Caregiver Education Level

The alignment between students' education expectations and career-entry needs was significantly associated with their caregivers' education levels.^{iv} One quarter of students (25%) whose caregivers did not attend college underestimated the level of education needed for their intended careers (Figure 6). A smaller percentage of students with caregivers who had some college experience (19%) underestimated the education needed for careers, and only 11% of students whose caregivers held a college degree did so. This represents a 14-percentage-point gap between students whose caregivers had no college experience and those whose caregivers had earned a college degree. On the other hand, the percentages of overestimation increased as caregiver education level rose: One third of students (34%) with college-educated caregivers overestimated the education they would need, compared with about one quarter of students whose caregivers had no college experience (24%) or some college experience (26%). Additionally, a higher percentage of students (56%) whose caregivers had at least some college experience accurately estimated the education levels needed for their planned careers than students whose caregivers did not attend college (51%).

Figure 6. Students' Education–Career Level Alignment by Caregiver Education Level

Note. The *n* counts are unweighted sample sizes, while the percentages were calculated after weighting.

Discussion

In this study, we examined the extent to which high school students' perceptions of the education needed for their planned careers aligned with the education typically needed for entry into those careers. As postsecondary options are expanding and employers seek workers prepared for high-demand jobs, students face increasingly complex decisions about which education will best prepare them for their future careers. Students' understanding of these education-to-career pathways is critical given that the direction of their education carries with it consequences related to cost, time, and opportunity.

Most surveyed students thought a bachelor's degree or higher was necessary for their planned careers, which is consistent with ACT data showing that 83% of high school graduates who took the national ACT test during the past decade and responded to a registration question about their educational aspirations reported that they aspired to earn a bachelor's degree or higher (ACT, internal confidential document, 2025). Even though many projected jobs require middle skills with education less than a 4-year degree (Carnevale et al., 2023), the surveyed college-bound students rarely viewed shorter-term pathways, such as associate's degrees or certificate and credential programs, as sufficient, even for careers that typically need those levels of preparation. While this suggests that students have high aspirations for postsecondary

education, it may also indicate that they are unaware of the range of viable education options that can lead to successful career entry and unprepared to choose optimal education pathways. This is reinforced by research from the ECMC Group (2023) indicating that only a very small proportion of Gen Z teens (approximately one in ten) actually considered themselves prepared to choose their education pathways after high school.

While 90% of students want to pursue education after high school that is aligned with a career (ECMC Group, 2023), findings from this study showed that only about half of the surveyed students had identified aligned education-to-career pathways. A substantial proportion of students reported education expectations that did not align with career needs. Three out of ten students overestimated the education needed for career entry, while 15% underestimated it. These misaligned expectations occurred most often by one or two education levels, although there were some even greater education-level misalignments. Students with lower levels of misalignment may have some confusion about the education needed for careers, while students with higher misalignment levels may have considerable misunderstandings. This type of information can help counselors and teachers identify students who may need more individualized guidance and those who may benefit from group or online learning about education-to-career pathways.

Among students who underestimated the education needed for their planned careers, a majority thought a bachelor's degree was sufficient when graduate or professional degrees were needed. This occurred more so in careers such as occupational therapy, law, and clinical or counseling psychology, where licensure and graduate education are required, but these pathways may be more obscure and unclear to students. There was a small group of students who underestimated the education by multiple levels, believing that certificates/other credentials or associate's degrees were adequate for careers needing a bachelor's degree or higher. These misalignments were in fields such as health and biological sciences. Health and scientific fields may be especially prone to confusion given that certain combinations of certificates, licenses, and/or degrees are needed depending on the occupation.

For the nearly two thirds of students who overestimated the education needed for their careers, graduate or professional degrees were considered necessary when a bachelor's degree was typical for these careers. This was evident for careers in fields such as engineering, health sciences, and physical sciences. Students may believe that more education is better because it allows for greater opportunity, such as a higher entry salary or a greater likelihood of being hired in these types of professions. They may also be simplifying educational requirements in response to greater complexity and uncertainty in education and employment, assuming that advanced degrees are most aligned overall with occupations in these fields and will therefore provide the greatest benefit. Students may also be confusing the education needed to enter a career with the education necessary to advance in a career despite the survey question asking for the education level needed to enter their planned career. Further, some students anticipated needing a bachelor's degree or higher when an associate's degree or certificate/credential was sufficient. These inflated expectations were particularly pronounced in health assisting fields that included occupations such as medical assistant or dental assistant. These pathways may

be less transparent, and thus, students' lack of awareness may lead them to default to more familiar education options for health-related careers.

Furthermore, students' education–career misalignment is significantly related to differences in caregiver education level, underscoring the importance of access to information about postsecondary options and career pathways. More students whose caregivers had at least some college education were aligned in the education needed for their planned careers than students whose caregivers did not have college experience, although the percentage difference was not large (56% vs. 51%). It is concerning that only about half of the students across education-level groups had education–career alignment given that most teens trust their parents for advice on postsecondary pathways despite many parents lacking extensive knowledge about these pathways (Gallup, 2025b). More students whose caregivers had no college experience underestimated the education needed for their intended careers than students whose caregivers had more education. In contrast, more students with college-educated caregivers overestimated the education necessary than students with caregivers having less education. These patterns suggest different types of information gaps. Underestimation may reflect limited access to firsthand parent knowledge about postsecondary pathways or other resources, while overestimation may reflect greater exposure to professions needing advanced degrees combined with less familiarity with pathways that require less than a 4-year degree. Prior research similarly shows that parents tend to have more knowledge about education levels they have personally experienced, which can influence the guidance they provide to their children (Gallup, 2025b).

Family, school, and media contexts may all play a role in shaping how students interpret the education needed for different careers. For example, family beliefs that advanced degrees define success may lead students to overestimate the education needed for career entry. The occupations or educational pathways of family members may further influence students' own expectations. School environments can also reinforce overestimation when they emphasize 4-year or higher degrees as the primary educational route to a career. At the same time, media messages that highlight credentials or shorter-term pathways to meeting employer needs for workforce entrants in high-demand occupations may encourage some students to underestimate the education needed for careers. These contextual influences emphasize the complexity surrounding students' developing thoughts about education-to-career pathways. Students may receive mixed or incomplete messages about the education needed for careers, which can lead to both under- and overestimation. When exposure to accurate pathway information is inconsistent or uneven, students' expectations are left primarily to the perspectives available to them.

The findings in this study reveal meaningful gaps in students' understanding of the education typically needed to enter their intended careers. When students underestimate education needs, they risk pursuing too little education to qualify for entry into their chosen fields and may therefore find it necessary to further their education. When students overestimate education needs, they may pursue longer and more costly pathways than are necessary. Both types of misalignment can delay entry into the workforce and undermine the goal of creating well-aligned education-to-career pathways.

To make more optimal education–career pathway choices, students need clear, actionable information about how specific education pathways connect to careers. As the postsecondary landscape grows more complex, high school counselors and teachers play a critical role in helping students access and interpret career information, recognize careers with more loosely or rigidly defined pathways, and understand the full range of viable pathways aligned with their goals and labor-market demands. With this support, students can pursue education–career pathways that set the stage for future success.

Based on findings from this study, schools can take the following actions:

- **Make education-to-career pathway information accessible, concrete, and easy to use.** To address gaps in students’ knowledge of pathways, schools can help students better understand their options by embedding pathway discussions into advising, classroom instruction, and college or career planning activities. To support this work, school staff can develop career pathway maps for commonly selected future occupations and engage students in creating additional maps that can serve as shared resources for younger students. For quick reference, schools can also provide pathway snapshots that summarize key pathway information, such as time to occupation entry, typical credentials needed, and required experiences (e.g., practicums, internships, or clinical hours). Emphasizing stackable credentials (i.e., credentials obtained as needed to enhance qualifications), alternative occupation titles, and multiple entry and exit points can also help students see how different education options connect to longer-term goals.
- **Reinforce multiple viable pathways and promote “right-sized” education as the norm.** To normalize the value of different options, pathway guidance should emphasize that there are multiple viable routes into careers. Schools can present associate’s degrees, certificates, and apprenticeships as credible first-choice pathways for specific occupations and not as backup options. Schools can help offset students’ tendencies to under- or overestimate the education needed for careers by explicitly reinforcing the concept of “right-sized” education, which involves planning for the level of education that aligns with career needs. For example, schools can encourage students to (a) identify at least two pathway options for their intended careers (e.g., certificate/associate’s route and bachelor’s route), (b) compare each option in terms of cost, time, and alignment with what is typically needed for career entry as part of their planning activities, and (c) consider stacking as a planning strategy when students want a faster start but longer term advancement.
- **Adopt education-to-career alignment indicators to check student planning progress.** Schools and districts can adopt a pathway alignment indicator to assess whether students’ education or training plans align with their intended careers over time. This indicator can help students avoid misaligned plans and reassure them that they are making progress toward their goals. Pathway checks can occur at relevant decision points in high school, such as when students are selecting coursework, making choices about dual enrollment options, applying to postsecondary programs, and identifying preferred major programs of study and careers. Alignment checks can help students

confirm requirements before committing to their plans. Alignment indicators can also signal when students may need additional support to bring their plans into alignment.

- **Provide extra support to students who have less access to pathway information.** Schools can use caregiver education level as one way to identify students for proactive checks and guidance about the education needed for different careers. Because not all students and families start with the same level of information, schools might want to take deliberate steps to ensure pathway information is focused and understandable. School staff should avoid assuming that families already understand postsecondary options. Offer clear, plain-language explanations of degrees, certificates, and credentials for both students and families. Create learning opportunities (e.g., mini-workshops, handouts, short videos, pathway discussions during parent–teacher conferences) that explain education-to-career pathways without overwhelming families.
- **Help parents and caregivers become informed partners in pathway conversations with students.** Although students trust parents and caregivers for advice about pathways, many parents and caregivers lack information about credentials and careers. Schools can support families by sharing simple, trusted resources that explain what different credentials mean and which ones are typically needed for different careers. Caregiver engagement should be positioned as support rather than expertise to reinforce that parents and caregivers do not need all the answers to help students ask better questions. Aligning messaging across counselors, teachers, and family communications can further ensure that students receive consistent and accurate advice.
- **Partner with postsecondary providers and employers to enhance pathway transparency.** Schools can incorporate structured discussions of education-to-career pathways through guest speakers, industry panels, and joint advising events. Employers can support this effort by ensuring that job postings reflect actual entry-level expectations and by explicitly listing alternative credentials and experience substitutions (e.g., internships, certifications, apprenticeships). Postsecondary providers can further enhance pathway clarity by indicating occupations that a person would qualify for after completing a certain program, clearly detailing licensure requirements when they are applicable, clarifying transfer options, and explaining how credentials are stackable. Postsecondary and employer partners sharing firsthand pathway information is especially important in fields with regulated or less transparent pathways, such as health care, where students may struggle to understand the education that is typically needed for certain occupations.

Limitations & Future Research

There are limitations associated with this study. First, our findings are based on self-reported data, which are influenced by students' subjective perceptions and experiences, and caution should be exercised when drawing major conclusions. Second, the study's sample was limited to college-bound students who registered for the ACT, had selected a planned career at the

time of registration, and opted to respond to the survey. This sample may not fully represent the broader high school population. Third, we are not able to determine whether survey nonrespondents hold different perceptions than respondents. Fourth, students' responses to the survey question asking what level of education they thought was needed to enter their planned career may reflect how students are independently interpreting the education categories, and we cannot presume a common understanding of these categories. Finally, the list of occupations from which students selected their choices includes some titles that are broad or ambiguous enough to encompass a variety of roles or occupations. Consequently, students may perceive that different education levels are required for the same occupation.

Future research could examine how targeted instructional interventions influence students' under- or overestimation, offering insight as to which approaches more effectively help reduce misalignments. Research could also explore the role of pathway transparency by determining whether underestimation is more prevalent for careers where educational pathways are more complex or regulated and overestimation is more prevalent for careers where pathways are more loosely defined. Additionally, a future study could segment education–career misalignment by occupational categories characterized by similar work tasks and work settings to identify patterns that result in lesser or greater alignment.

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Notes

- i. For the survey item asking students to identify the level of education needed for their planned career, high school diploma/equivalent was excluded as a response option given that our sample of national ACT test takers considered themselves college-bound and only 1% of students from the December 2024 and February 2025 national test dates indicated high school diploma/equivalent as their highest expected education level when responding to a relevant item during ACT registration.
- ii. The planned occupations that students selected during ACT registration were matched to the occupations in the BLS National Employment Matrix using the occupation titles. Students whose occupation selections did not match any occupation in the BLS data source ($n = 106$) were excluded from this analysis.
- iii. Five education levels were included in the analysis: 1 = career/technical or certificate program, 2 = associate's degree (2 years), 3 = bachelor's degree (4 years), 4 = 1 or 2 years of graduate study (MA, MBA, etc.), 5 = doctoral or professional degree (PhD, MD, JD, etc.). The magnitudes of differences were calculated by using perceived education level minus the education level needed to enter the planned career.
- iv. A chi-square test of independence was conducted to explore whether caregiver education level was associated with alignment between the students' estimated education levels and the actual education levels needed for their planned careers. There were three caregiver education level options (see Table A1; students whose caregiver education level was unknown were excluded from this analysis) and three alignment levels (underestimated, matched, and overestimated). Chi-square results were $\chi^2 = 51.98$, $p < 0.01$. The statistics from the chi-square test reflect the weighting.

Technical Appendix

Sample

This study was part of a larger survey project about students' perspectives on employer-desired skills. The target population of the survey was high school students in Grades 11 and 12 who registered for the December 2024 or February 2025 ACT national test and reported that they were residing in the U.S. It excluded students who did not provide a planned occupation or reported that they were undecided on their planned occupation when registering for the ACT test. The sampled population was $N = 121,539$ and did not include students who opted out of ACT communications or who were included in recent student survey samples. A stratified random sample of 96,260 Grade 11 and Grade 12 high school students nationwide was drawn from the sampled population for this study. These students were presumed to be college-bound, although it is possible that some of them will not attend college. The sample was stratified on race/ethnicity to improve representation of subgroups and enable meaningful subgroup analysis in the larger survey project. This brief focused on the analysis of only one key question.

Students were invited via email to participate in the online survey. The survey opened on February 12, 2025, and closed on March 28, 2025. A total of 2,294 students answered at least half of the required questions (i.e., the selected-response questions); this group of students was used as the analytical sample of the survey (a response rate of 2%). This response rate is not unusual for online surveys, and we do not know whether nonrespondents' opinions would have been similar to those of the respondents, which is a limitation of this study. This brief focused on the responses to the question about the level of education students thought they would need to enter their planned career field / occupation. Students in the analytical sample of the larger survey project who answered this question and whose occupation choices had a corresponding option identified in BLS were included in this analysis ($n = 2,184$).

We used propensity weighting to adjust for nonresponse and overrepresentation of respondents from some racial/ethnic subgroups to match the sampled population.

Student characteristics (gender, race/ethnicity, family income, parental education, high school GPA) are reported in Table A1 for the survey's sampled population, the analytical sample, and the weighted analytical sample. All the characteristics in the table were reported by students and were collected when the students registered for the ACT test. Also, students who chose to participate in the survey were asked to provide additional information about family income at the end of the survey.

Table A1. Characteristics of the Sampled Population, Analytical Sample, and Weighted Analytical Sample (Percentage ^a)

Characteristic	Group	Sampled population (N = 121,539)	Analytical sample (n = 2,294)	Weighted analytical sample (n = 2,294)
Gender	Female	59	67	58
	Male	40	31	40
	Other/unknown	1	2	2
Race/ethnicity	Asian	7	9	7
	Black / African American	15	10	14
	Hispanic/Latinx	15	13	14
	Other ^b	6	5	6
	White	53	59	54
	Race/ethnicity missing	3	4	4
Family income	Less than \$36,000	20	12	10
	\$36,000 to \$100,000	22	30	23
	More than \$100,000	39	53	39
	Family income missing	28	5	29
Caregiver education ^c	No college	13	9	14
	Some college	15	15	15
	College or higher	60	66	60
	Caregiver education missing	12	9	12
High school GPA	3.5 and above	64	76	66
	2.5–3.4	21	13	21
	2.4 and below	2	1	2
	HSGPA missing	13	10	12

^a Some percentages in the table do not add up to 100% due to rounding. ^b Other races/ethnicities include Native American, Native Hawaiian / other Pacific Islander, and two or more races/ethnicities. ^c Caregiver education levels: no college = less than high school or high school graduate / GED; some college = business/technical school, certificate program, some college with no degree or certificate, or associate's degree (2 year); college or higher = bachelor's degree (4 year) or higher.

Survey Instrument

The following is the relevant survey item for this issue brief:

1. Choose the level of education you think will be needed to enter your planned career field/occupation of [populated by the occupation each student selected during ACT registration] that you selected on the ACT Registration.

Scale:

- Career/Technical or Certificate program
- Associate's degree (2 years)
- Bachelor's degree (4 years)
- One or 2 years of graduate study (MA, MBA, etc.)
- Doctorate or professional degree (PhD, MD, JD, etc.)
- Other - please specify



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