High School Students' Thoughts on the Importance of Career Planning for Future Success

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Introduction

As high school students plan for their future career paths, many discover that learning about their career options, making career choices, and figuring out how to achieve career goals can be exciting, unnerving, or overwhelming. Some students may think exploring careers is overrated, and others may assume that having a successful and satisfying career will just happen by itself. However, career planning is important in helping students make better-informed career choices and provides a foundation for their future career success. Career planning involves discovering careers that suit the personal characteristics (e.g., interests, skills, values) of individuals, which guide career goals and the actions that should be taken along one's career path to attain them. Individuals who engage in different aspects of career planning expand their opportunities (Zikic & Klehe, 2006), enhance their perceived employability (Kleine et al., 2021), enhance their readiness to choose a career path (Kleine et al., 2021), make decisions that better fit them (Hirschi, 2011; Tsabari et al., 2005), and experience more positive career outcomes later, such as job performance and job satisfaction (Oh et al., 2014). Clearly, the positive consequences of career planning make it an important part of preparing students for success in the future.

The context surrounding careers in recent years has also made planning for careers more important than ever. For example, technological advancement (e.g., generative artificial intelligence) is changing the landscape of work. Overall, it has been estimated that "28 percent of all tasks associated with current jobs will be at risk of automation by 2031" (Strohl et al., 2024, p. 20). Structural shifts in the labor market are also creating an unknown future of job opportunities. According to the World Economic Forum (2023), employers are expecting a "market churn of 23% of jobs in the next five years," which is a measure of disruption that includes "emerging jobs added and declining jobs eliminated" (p. 6). Further, the majority of jobs that require a middle skill certificate and associate's degree (52%) or a bachelor's degree (66%) are expected to be good jobs by 2031 (based on annual earnings of at least $43,000 for workers ages 25–44 and $55,000 for workers ages 45–64 in 2022 dollars), up 21% from 2021 (Strohl et al., 2024). Additionally, there are gaps between U.S. job demands (projected to 2029) and the supply of people interested in those jobs, with higher-education-level jobs experiencing smaller interest gaps (Hoff et al., 2024). This career context shows a labor market that will continue to be in flux, with greater opportunities and interest alignment for those who pursue education or training beyond high school. It will be essential for individuals in the future workforce to acquire and retool their skills to meet shifting market needs and to recognize that planning for careers will be a recurring theme when they are navigating their career journeys.

Career planning is necessary for high school students. Among the 2020 ACT-tested graduating class of high school students responding to whether they need help with education or occupation plans, 81% reported needing help with these plans (M. Harmston, ACT personal communication, August 13, 2024). Based on a YouScience (2022) survey of high school graduates between 2019 and 2022, 75% considered themselves moderately, slightly, or not prepared for college and career, with 37% not sure where they wanted to be in their education or career pathway and 30% not following any education or career pathway at all. While nearly two thirds of these graduates (62%) thought high schools should prepare them for their future careers, only 25% reported that their schools provided exposure to career options they might pursue, and 42% lacked confidence or were only slightly confident in their career or education choices (YouScience, 2022). Further, a recent ACT survey found that 42% of surveyed students from the graduating class of 2023 reported that the pandemic had affected their thoughts about college or career choice, and 31% changed their thoughts specifically about future career choices (Bobek & Schnieders, 2023). These results emphasize the need for students to start planning their careers before graduating from high school. While the need for career planning is apparent, it is not entirely clear how high school students think about career planning.

To better understand students' career planning perspectives and to gain insights about ways in which to support students' career planning, we surveyed a random sample of high school students in Grades 11 and 12 who registered for the December 2023 ACT national test (see the technical appendix for more details on the sample). In this online survey, we asked students to share their thoughts on career planning, including whether it is important, what it means, how it may influence them, and how important it is to complete various planning tasks by high school graduation. We also asked whether they engaged in different career planning activities and what career planning challenges they had experienced. In this brief, we share what we learned from 4,157 high school students on these topics.

Career Planning Is Clearly Important to High School Students

Nearly all the surveyed students (94%) reported that they thought it was very important or important to plan for their careers (Figure 1).

Figure 1. Percentages of Students Reporting the Importance of Career Planning (*n* = 4,154)
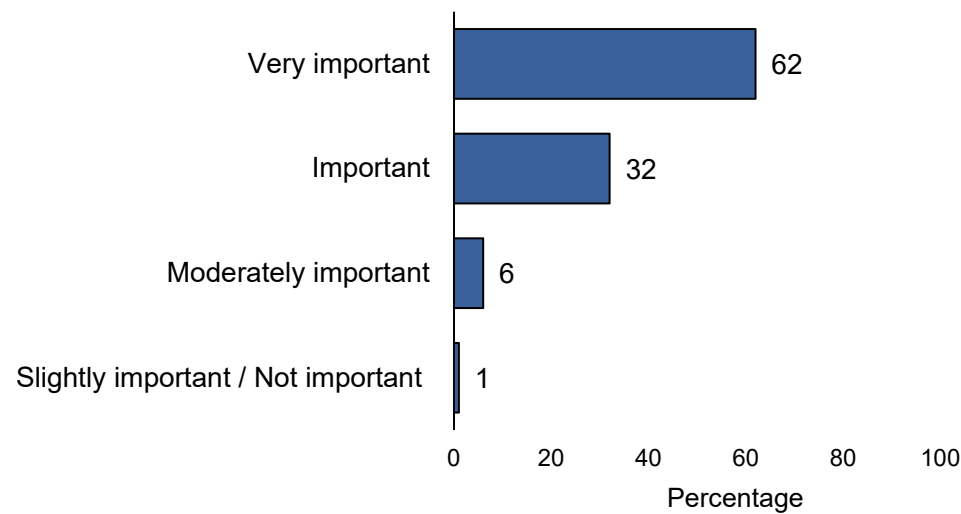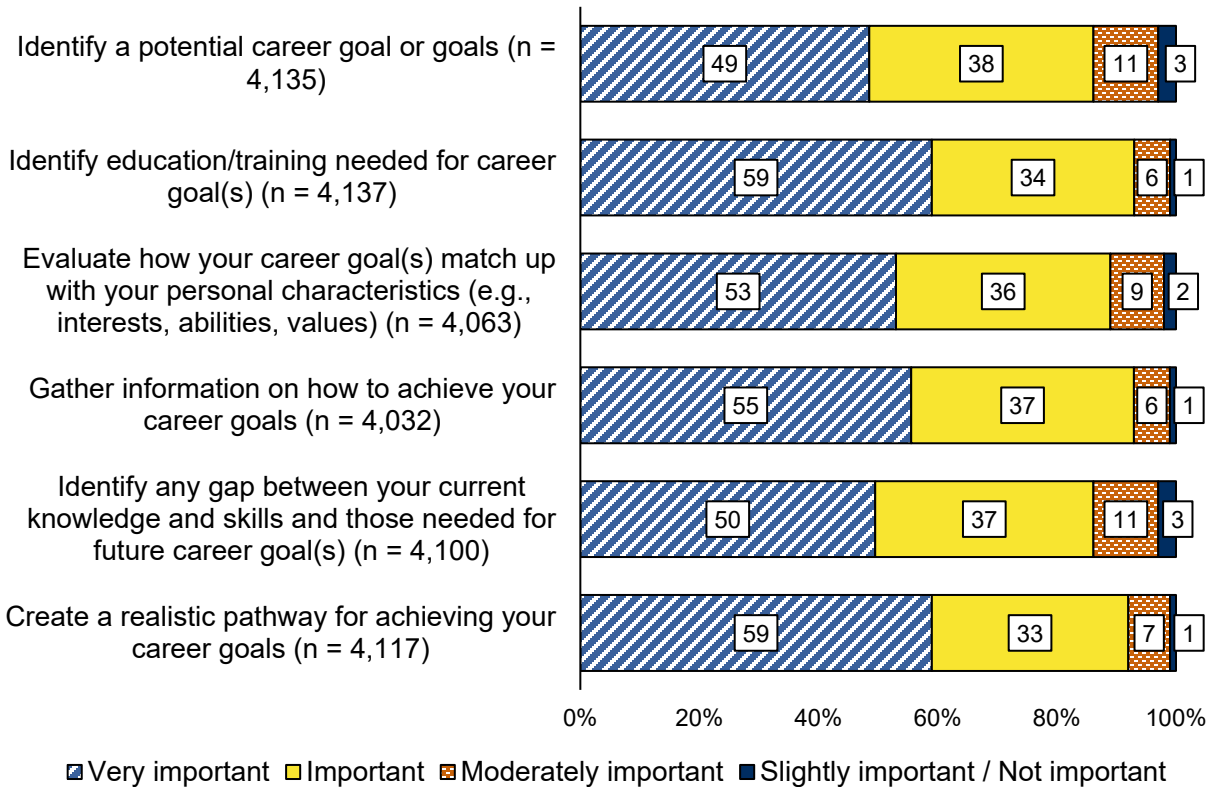

Note. Percentages do not add up to 100% due to rounding. The *n* count is an unweighted sample size, while the percentages were calculated after weighting.

In the words of one student who described career planning,[1]

> *"[career planning] is an important decision-making process in my life. I am very career-oriented, so planning my future is second nature to me. Planning my future gives me the opportunity to decide what I want to do after high school graduation and how I will accomplish the things I want to pursue."*

In addition to reporting the overall importance of career planning, the surveyed students weighed in on how important they thought it was to complete various career planning tasks by the time they graduated from high school. An overwhelming percentage of students (ranging from 87% to 93%) considered it very important or important to complete the tasks shown in Figure 2.

Figure 2. Percentages of Students Reporting Importance of Completing Career Planning Tasks Prior to High School Graduation

Identify a potential career goal or goals (n = 4,135): Very important 49, Important 38, Moderately important 11, Slightly important / Not important 3

Identify education/training needed for career goal(s) (n = 4,137): Very important 59, Important 34, Moderately important 6, Slightly important / Not important 1

Evaluate how your career goal(s) match up with your personal characteristics (e.g., interests, abilities, values) (n = 4,063): Very important 53, Important 36, Moderately important 9, Slightly important / Not important 2

Gather information on how to achieve your career goals (n = 4,032): Very important 55, Important 37, Moderately important 6, Slightly important / Not important 1

Identify any gap between your current knowledge and skills and those needed for future career goal(s) (n = 4,100): Very important 50, Important 37, Moderately important 11, Slightly important / Not important 3

Create a realistic pathway for achieving your career goals (n = 4,117): Very important 59, Important 33, Moderately important 7, Slightly important / Not important 1

Legend: ☒ Very important ☐ Important ☒ Moderately important ■ Slightly important / Not important

Note. Percentages might not add up to 100% due to rounding. The *n* counts are unweighted sample sizes, while the percentages were calculated after weighting.

The career planning tasks students considered most important to complete involved identifying the education or training needed for career goals and creating a realistic pathway for achieving career goals (59% rated as very important). This pathway perspective was reflected in the following student remark:

> *"[Career planning involves] thinking realistically about what career path that would best fit my personal interests and also help me sustain a successful life. Planning for a career is a very important and challenging concept to think about for a student."*

A majority of the students put a premium on gathering information related to how to achieve career goals (55% rated as very important) and evaluating how their career goals match up with their personal characteristics (53% rated as very important). This latter task is illustrated by one student:

> *"[Career planning is] knowing how my skills, talents, values, and interests translate into possible jobs or careers. Matching my skills, etc. to existing jobs or careers. Matching my career goals to my financial and educational needs"*

Identifying career goals and identifying gaps in the knowledge and skills needed to reach those goals were also very important for half of the students (49% and 50%, respectively). Further, one third or a slightly higher percentage of students (ranging from 33% to 38%) considered these various career planning tasks important to complete prior to high school graduation. This high school student highlighted a range of these important career planning tasks:

> *"'Planning for your career' involves setting goals, acquiring relevant skills, and making strategic decisions to progress professionally. It includes self-assessment, identifying aspirations, and taking steps to achieve a fulfilling and successful career path."*

Students Highlighted Different Things About Career Planning

Students were asked what "planning for your career" meant to them in an open-ended question (see the survey question in the technical appendix). By analyzing[2] 3,590 responses, we identified the top career planning categories (Table 1). Each of these categories is further described below.

Table 1. Top 6 Categories Describing What Career Planning Means to Students

Category	Count (*n*)
Taking steps to achieve goals	691
Acquiring relevant career skills and knowledge	677
Connecting education to career	618
Choosing a career	584
Learning about career options	389
Gaining career-related experiences	336

Note. A student could have referenced more than one category.

Taking Steps to Achieve Goals

Many students indicated that career planning involved mapping out the specific steps needed to achieve their goals. In setting out their career paths, students were highly cognizant of the importance of taking steps that would lead them closer to attaining their goals, as reflected in the comments of the following students:

> *"Planning what you want to do, how you are going to get there, when, where, and why"*

> *"Knowing every step you're going to take to get you to your career, from knowing what college you're going to, to the classes you're going to take, how you're going to pay for it, and making sure you pass your classes"*

> *"Knowing what I want to go into, and working backwards from there so that I know all the steps to achieve that"*

Other students made a point of having backup plans if the original plans did not work out as expected. These students had the foresight to consider alternatives before the circumstances warranted them, as indicated by the words of two students:

> *"Having a game plan and knowing that not everything will work out exactly how I want it to. Knowing where I want to end up, but being flexible on how I get there and having a back up plan for every step along the way"*

> *"Take the steps needed to build a successful future and create backup plans in case things don't go as planned."*

There were also students who thought career planning should take into account potential obstacles that might occur as they pursued their career goals. By preparing to face these challenges ahead of time, students thought they would be better able to reach their goals, as reflected in two students' remarks:

> *"Planning for my career means to prepare for all the obstacles before I am able to get my preferred career."*

> *"To me, planning out my career would mean I would be ready to face the challenges that comes with finding a career within my interests and skill set; knowing what I must do to get the job I want."*

Acquiring Relevant Career Skills and Knowledge

Another aspect of career planning for some students was acquiring the knowledge and skills that would be important for their careers. This combination of knowledge and skills would allow the students to enter their desired careers and to succeed in them, as illustrated in the comments of two students:

> *"Getting the skills and knowledge that I need to go into a career path"*

> *"Gaining all essential skills, knowledge, and experiences to be able to succeed in my future career"*

Other students referred to choosing classes that were tailored to the careers they wanted to pursue as one way for developing necessary career-relevant knowledge and skills. Students thought taking these types of classes would be particularly helpful for career preparation, as shown in the following students' comments:

> *"I would be learning some skills that would be useful for that career. I would be taking classes that are important for the career."*

> *"Taking classes that help you best prepare for your career. For me, I have chosen a career in stem, so Ive been taking a lot of math, science, and tech classes."*

Connecting Education to Career

There were students who indicated that career planning involved choosing an education path that would connect to their careers. They believed doing so would give them an advantage and provide the knowledge and skills needed in their chosen careers, as conveyed by two students:

> *"Getting the proper high school education and then using that to get into the college that will put me at the best advantage in the career path that i want"*

> *"Applying for certain colleges or universities based on your choice of major that fits your career goal. Which also means getting the needed education for that specialized field, such as going to medical school."*

Other students referred to choosing schools that might have career-related degree programs or opportunities such as internships related to their career goals. Students also mentioned schools that focused specifically on their careers or offered a curriculum that allowed for pursuing their careers. This was highlighted by three students:

> *"Going to a good school for my specific degree and doing internships for the career while in college"*

> *"Knowing what college you want to get into to help you with your career and having everything organized for that career"*

> *"Deciding on a college that has a plan for my occupation"*

Choosing a Career

There were also students who specified that career planning was about figuring out what you wanted to do, whether it was a career or a college major and a college leading to a career. These students thought about how their personal characteristics (e.g., interests, abilities) related to careers. They considered what they wanted life to look like after their schooling. They also considered how their preferences might inform their career choices. This is clearly illustrated in comments from three students:

> *"Finding a stable job that interests me and that I am skilled at"*

> *"Finding what career works best for me given my strengths and talents"*

> *"Finding the right education path, finding/choosing a career that I love but will also take seriously. Taking into account all the different factors such as money, how much schooling I need, etc."*

Other students pointed to setting career goals as an important part of career planning. Students considered this a process that required being thoughtful and intentional, as setting goals and following through with them would shape their career paths over time. Students were

forecasting their futures by setting goals, and they wanted goals to be achievable and timely, as this would help them along the way. This was reflected in the remarks of three students:

> *"To me 'planning for your career' means thinking ahead and setting goals for my future job."*

> *"Setting achievable goals for the near and distant future which when accomplished will further my career in an impactful way"*

> *"Setting timely goals to attain expertise or education prior to applying for the job"*

Learning About Career Options

When describing career planning, some students referred to doing career research and learning about career options. These students wanted to find out what careers look like in terms of their typical daily responsibilities and the challenges people encounter doing the work. They were interested in learning about job requirements, degree requirements, and pathways to attaining careers. They also wanted to better understand the context related to different jobs (e.g., outlook, location). In addition, some students thought it important to talk with others in career fields of interest to gather additional information. This career information would help students weigh the pros and cons of different careers and narrow their career options to what would better suit them. Students highlighted these points:

> *"Learning more about the job by talking with people in the current field, taking HS classes that gave me some exposure to the subject, and getting an idea of what the everyday responsibility would be, long-term career growth, and pay"*

> *"Knowing how much schooling I need, knowing what courses I need to take in college, knowing what degree I'm going for, and knowing the gaps between my knowledge now and the knowledge needed for the job"*

> *"Narrow your career options by reviewing career information, researching companies, and talking to professionals in the field."*

Gaining Career-Related Experiences

Some students described experience as an essential part of career planning. Students viewed career-related experiences (e.g., internships, job shadowing, extracurricular activities, volunteer activities) as a means to determine what they did or did not want in a career, to verify continued interest in a career, to network, and to further understand what a career entailed. These students thought experiences provided unique opportunities to gain career insights through hands-on learning and helped to set them up for career success. Students told us the following:

> *"Experience it, get a firsthand take on what actually happens in your career field to see if you actually enjoy it."*

> *"Hands-on experience is important because it offers more insight than mere reading."*
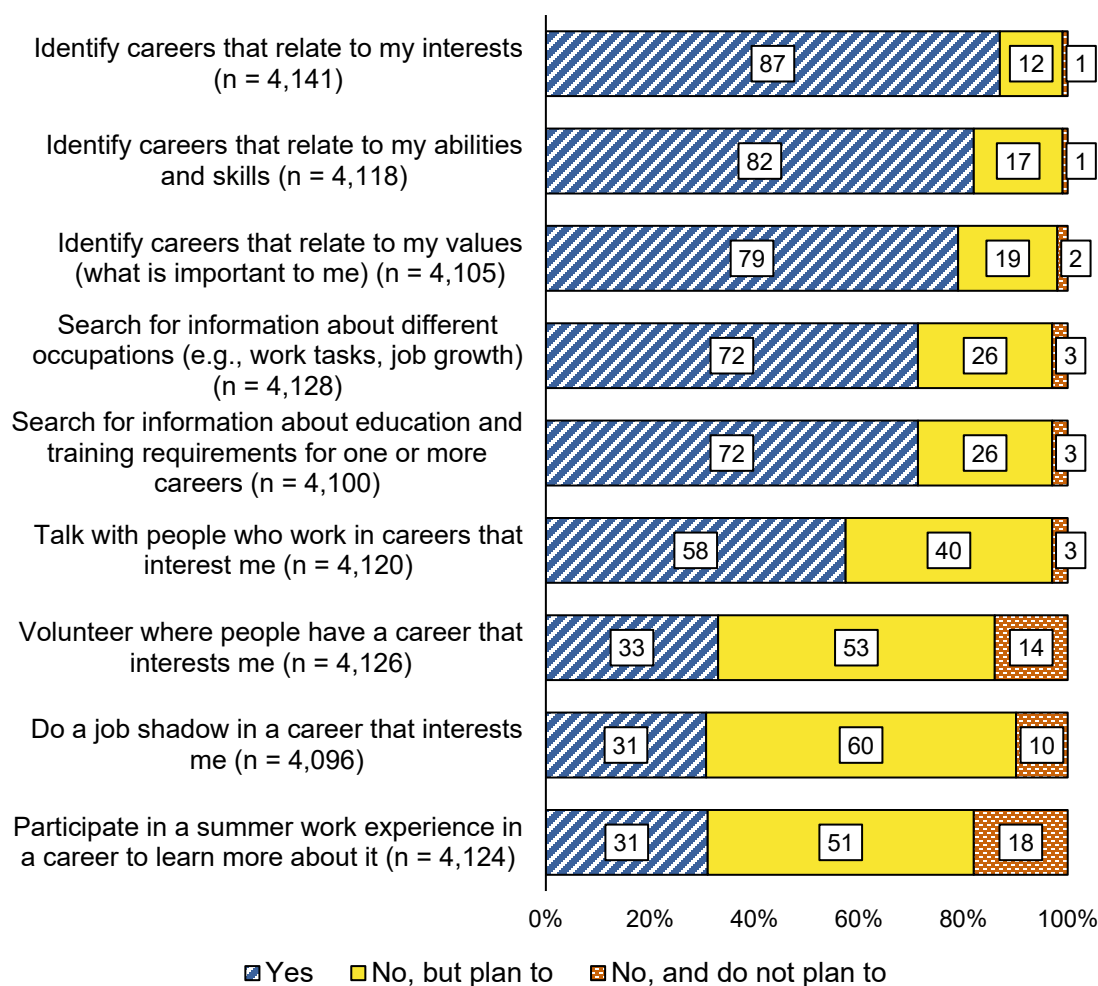
"Setting yourself up for success; Getting the education and experience in your work field needed to make you a successful employee"

While students emphasized different things when defining what career planning meant to them, they highlighted important parts of the planning process that informed decisions about their futures and supported their career success.

Most Students Engaged in Exploration Activities to Identify Good-Fit Careers and Search for Career Information

The surveyed students reported being actively engaged in career exploration activities. Over three quarters of the students (ranging from 79% to 87%) had already identified careers related to their interests, abilities, and values, a step that supports finding careers that will better fit them (Figure 3).

Figure 3. Percentages of Students Reporting Engagement in Career Exploration Activities

Activity	Yes	No, but plan to	No, and do not plan to
Identify careers that relate to my interests (n = 4,141)	87	12	1
Identify careers that relate to my abilities and skills (n = 4,118)	82	17	1
Identify careers that relate to my values (what is important to me) (n = 4,105)	79	19	2
Search for information about different occupations (e.g., work tasks, job growth) (n = 4,128)	72	26	3
Search for information about education and training requirements for one or more careers (n = 4,100)	72	26	3
Talk with people who work in careers that interest me (n = 4,120)	58	40	3
Volunteer where people have a career that interests me (n = 4,126)	33	53	14
Do a job shadow in a career that interests me (n = 4,096)	31	60	10
Participate in a summer work experience in a career to learn more about it (n = 4,124)	31	51	18

Note. Percentages might not add up to 100% due to rounding. The *n* counts are unweighted sample sizes, while the percentages were calculated after weighting.

Nearly three quarters (72%) sought information about different occupations and the education and training needed for careers, and another 26% planned to do so. More than half (58%) talked with people working in careers that interested them, with most of the remaining students (40%) intending to do so. One student remarked as follows:

> *"Planning for my career means exploring different career options online or through books. To me, it also means consulting with adults and advisors about good possible career options for me, or hearing their own career stories to get a better understanding of what jobs are available that I may not even know about."*

It is notable that the lowest percentage of students had engaged in experiential career-related activities, with one out of three students having gained career-related experiences by this time. However, a majority of students did plan to do an interest-related job shadow (60%), gain volunteer experience (53%), or participate in a summer work experience to learn more about a career (51%). Two students highlighted benefits from engaging in career-related experiences:

> *"I need to do some more job shadowing to help me decide what career path I want to take. I have done some already that really helped me narrow down my decision."*

> *"I have taken various science and healthcare courses throughout high school and volunteer at a local hospital to prepare myself for my future career."*

Comparing student career exploration task engagement with important tasks completed by high school graduation (Figure 2), we see that a large majority of students engaged in the career exploration tasks that they considered very important or important to do prior to graduation. These included tasks related to searching for information and evaluating the match between careers and personal characteristics such as interests, abilities, and values.

Career Exploration Overrated for Some Students

Many students engaged in important activities that related to exploring careers (as shown above). When the surveyed high school students (*n* = 4,138) were asked specifically whether they wanted to further explore (or had explored) different careers, nearly two thirds (61%) strongly or moderately agreed. Two thirds (66%) also thought the value of exploring careers before choosing a career was not overrated (Figure 4). At the same time, approximately one third of the surveyed students (34%) strongly, moderately, or slightly agreed that the value of exploring careers prior to making career choices was overrated.
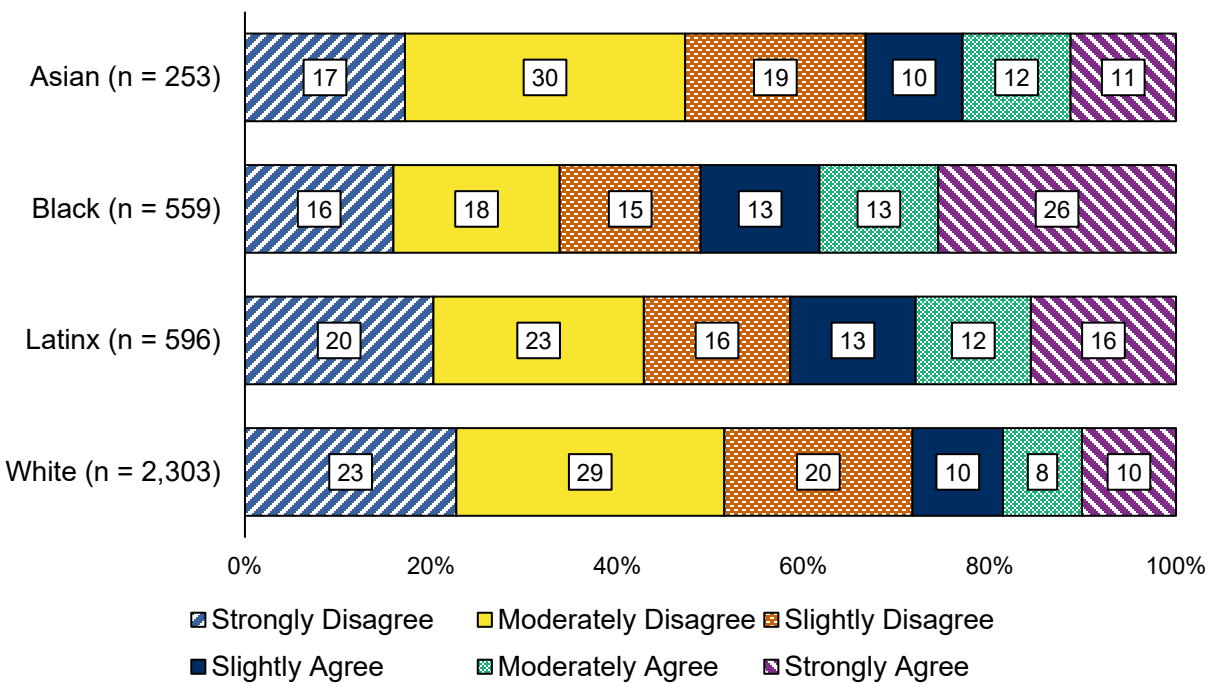
Figure 4. Percentages of Students Reporting Level of Agreement on the Value of Career Exploration Being Overrated

I think the value of exploring different careers before choosing a career is overrated (n = 4,063)

| 21 | 26 | 19 | 11 | 10 | 13 |

0%   20%   40%   60%   80%   100%

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree
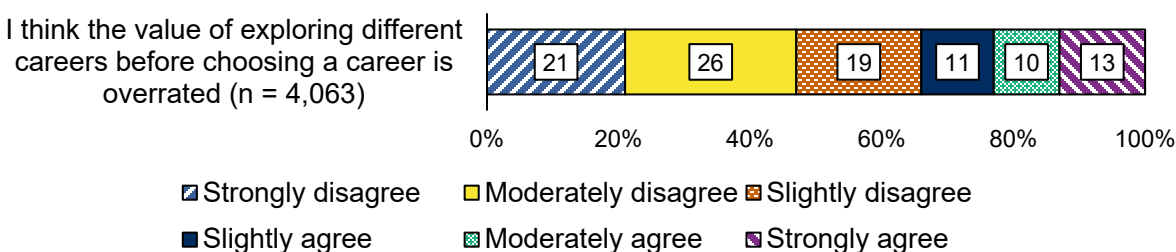
We investigated subgroup differences in beliefs about the value of career exploration being overrated and found that students in certain racial/ethnic, family income, and parental education groups were significantly more likely to consider the value of career exploration overrated than students in other groups.

A much higher percentage of Black students (52%) agreed that the value of exploring careers before choosing them was overrated than did Asian and White students (33% and 28%, respectively; see Figure 5). This is nearly a 20% difference (or higher) for Black students. This was followed by a higher percentage of Latinx students (41%) agreeing that career exploration was overrated compared to their Asian and White peers. Here, the difference is nearly 10% or higher for Latinx students.

Figure 5. Percentages of Students From Different Racial/Ethnic Groups Reporting Level of Agreement on the Value of Career Exploration Being Overrated

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

Differences were also found in different family income groups.[3] Almost half of the students from low-income families (49%) reported that they strongly, moderately, or slightly agreed that the value of exploring careers before choosing them was overrated compared to students from medium-income and high-income families (34% and 28%, respectively; see Figure 6). There is a 21% difference between low- and high-income groups and a 15% difference between low- and medium-income groups regarding the value of career exploration being overrated.
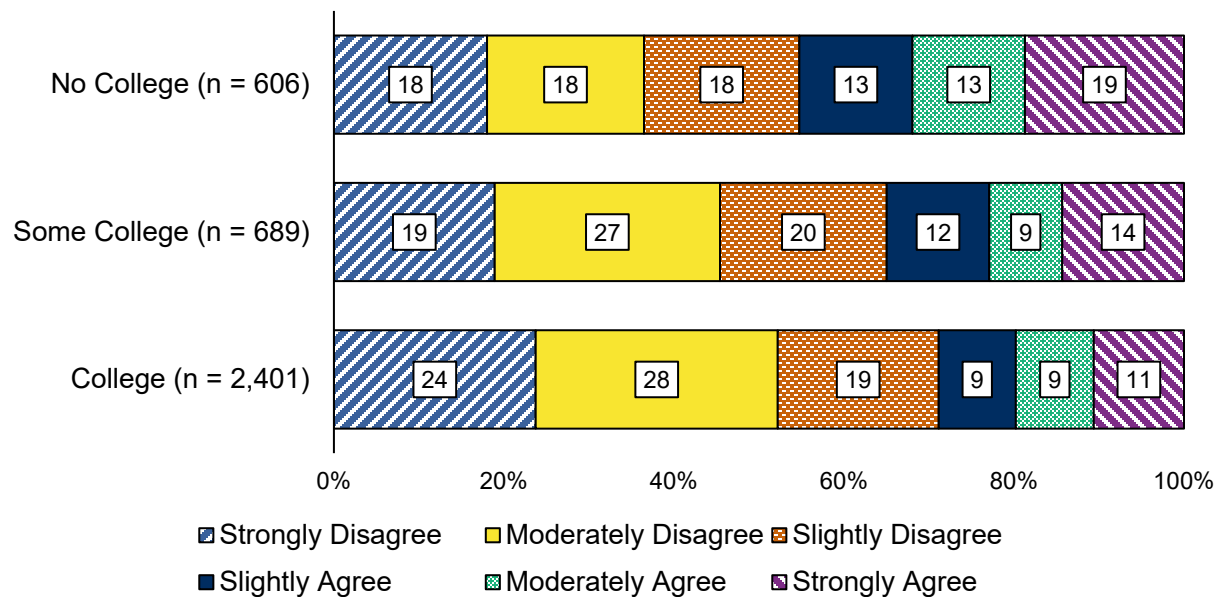
Figure 6. Percentages of Students From Different Income Groups Reporting Level of Agreement on the Value of Career Exploration Being Overrated
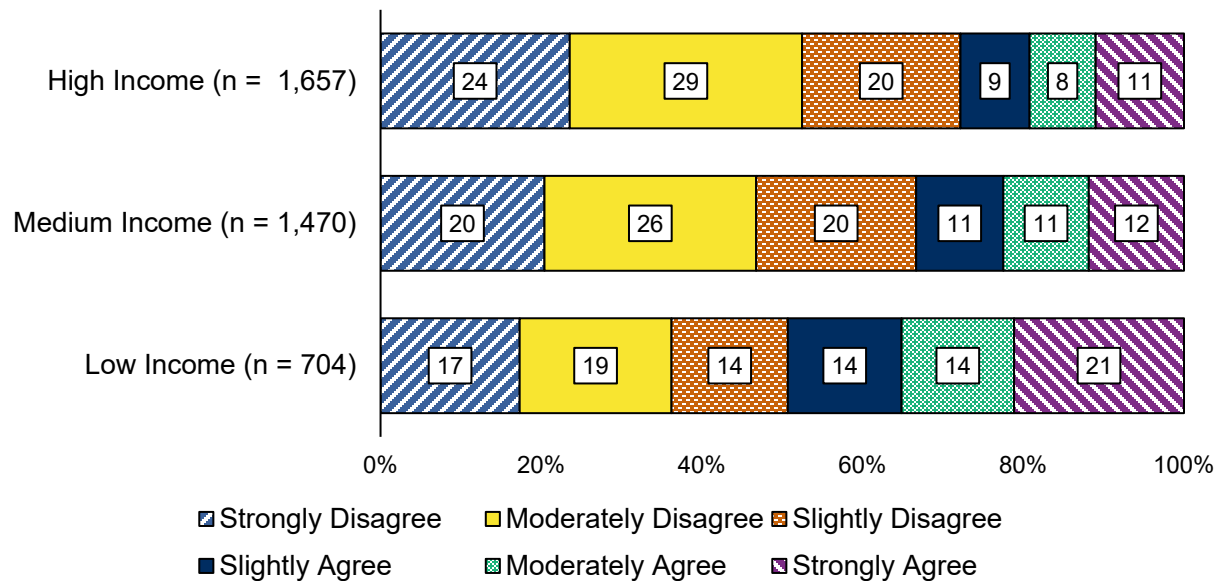
Note. Students who did not report their family income were not included. The *n* counts are unweighted sample sizes, while the percentages were calculated after weighting.

In terms of parental education level,[4] almost half of the students (45%) whose caregivers had no college education strongly, moderately, or slightly agreed that the value of exploring careers before making a career choice was overrated (Figure 7). This belief that career exploration was overrated was shared by 35% of students whose caregivers had some college education and 29% of students whose caregivers were college-educated. There is a 10% or higher difference between the no-college group and the other two college groups.

Figure 7. Percentages of Students From Different Parental Education Level Groups Reporting Level of Agreement on the Value of Career Exploration Being Overrated

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
No College (n = 606)	18	18	18	13	13	19
Some College (n = 689)	19	27	20	12	9	14
College (n = 2,401)	24	28	19	9	9	11

Note. Students who did not report their caregivers' education levels were not included. The *n* counts are unweighted sample sizes, while the percentages were calculated after weighting.

Students Cited Lack of Confidence and Lack of Knowledge as Career Planning Challenges

When students were asked about career planning challenges they experienced, or anticipated they would experience, they identified a range of difficulties. Over half (56%) reported a lack of confidence in their ability to make a good future career decision, while a similar percentage (54%) indicated a lack of knowledge about steps to take to make a career choice (Figure 8).

Figure 8. Percentages of Students Reporting Challenges Related to Career Planning
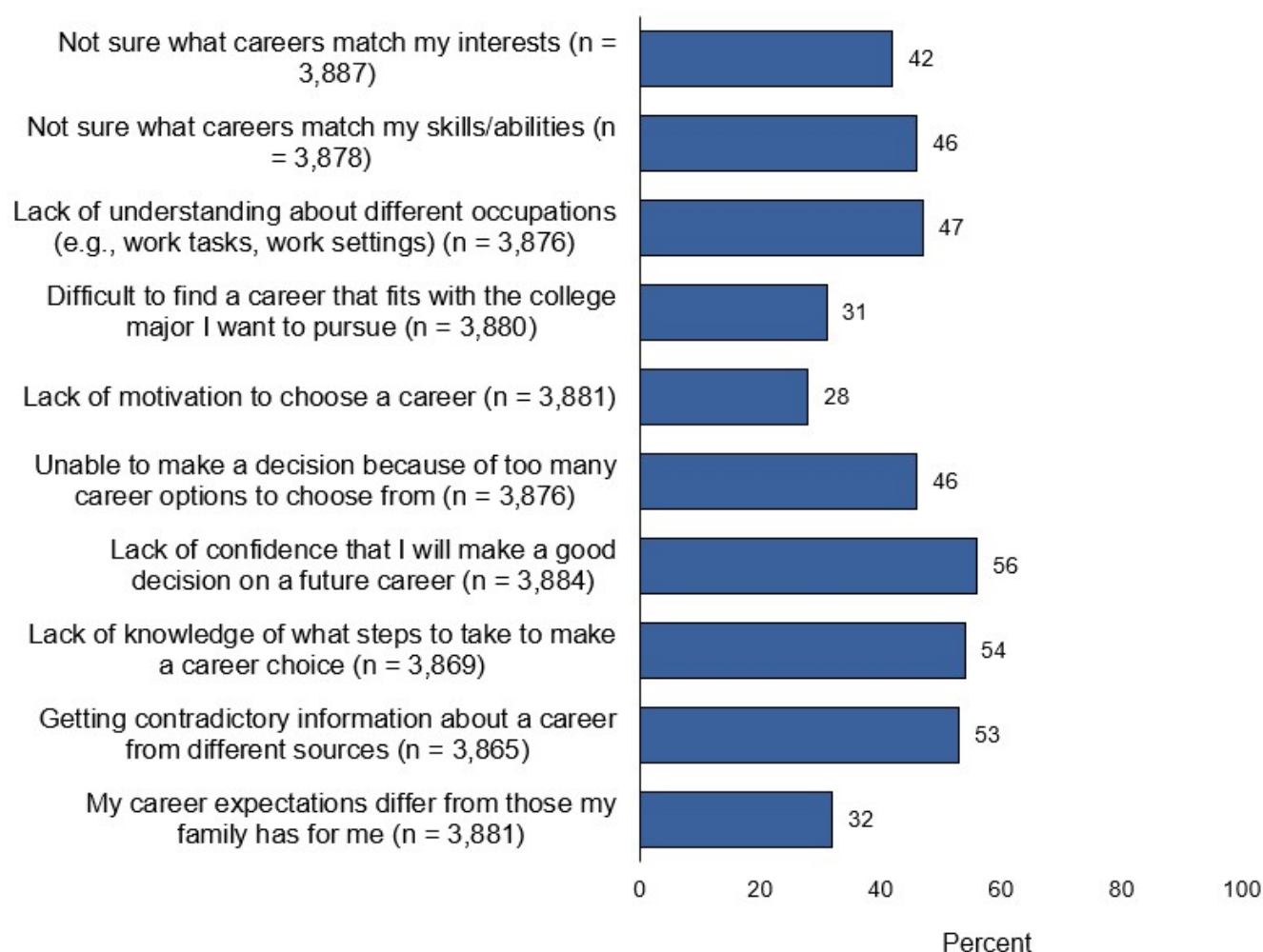
Additionally, information was a challenge for many students; they cited receiving contradictory information from different sources (53%) and lacked understanding of the characteristics of different occupations (47%). Finding a career that matched students' personal characteristics was another challenge. Almost half of the students considered it difficult to match their skills/abilities (46%) and interests (42%) to careers. Further, 46% found it challenging to even make their career decisions given the many options that were available to them. Additionally, nearly one third of the students (32%) experienced the barrier of having career expectations that differed from those of their families.

We also used a regression model[5] (see the technical appendix for regression statistics) to further investigate whether agreement on the value of career exploration being overrated was associated with students' engagement with career exploration activities and their career planning challenges. After holding demographic variables constant (i.e., race/ethnicity, gender, family income, parental education level), we used the number of experiential activities in which students participated, the number of challenges students experienced matching their characteristics with those of careers, the number of challenges students experienced with

career knowledge, and the number of challenges students experienced with motivation to predict students' agreement with career exploration being overrated. The number of 1) experiential activities, 2) challenges matching characteristics to careers, and 3) challenges with motivation significantly and positively predicted the degree of agreement with career exploration being overrated. Conversely, the number of challenges students experienced with career knowledge negatively predicted the degree of agreement. In other words, the more career experiential activities students engaged in (e.g., job shadowing, volunteering, summer work), the more students agreed that the value of career exploration was overrated. Also, the more challenges students had with career matching (e.g., determining what careers matched their interests, skills, and abilities) and the more challenges they had with motivators (e.g., lack of confidence on making a good career decision, career expectations differing from those of family), the more students agreed that the value of career exploration was overrated. On the other hand, the more challenges students had with career knowledge (e.g., lack of understanding about different occupations or steps to take to make a career choice), the less they agreed that the value of career exploration was overrated.

High School Students Optimistic About Careers and Career Planning Outcomes

Despite the challenges students experienced or anticipated they would experience, they responded optimistically when asked whether they felt prepared to choose a career direction and whether they looked forward to making this choice. Approximately half of the students (49%) indicated that they were very prepared or prepared to choose a career direction, and almost one third (31%) were moderately prepared for this important decision (Figure 9). Approximately one fifth (21%) reported being slightly or not prepared to choose a career direction.

Figure 9. Percentages of Students Reporting Their Level of Preparedness to Choose a Career Direction (*n* = 4,157)
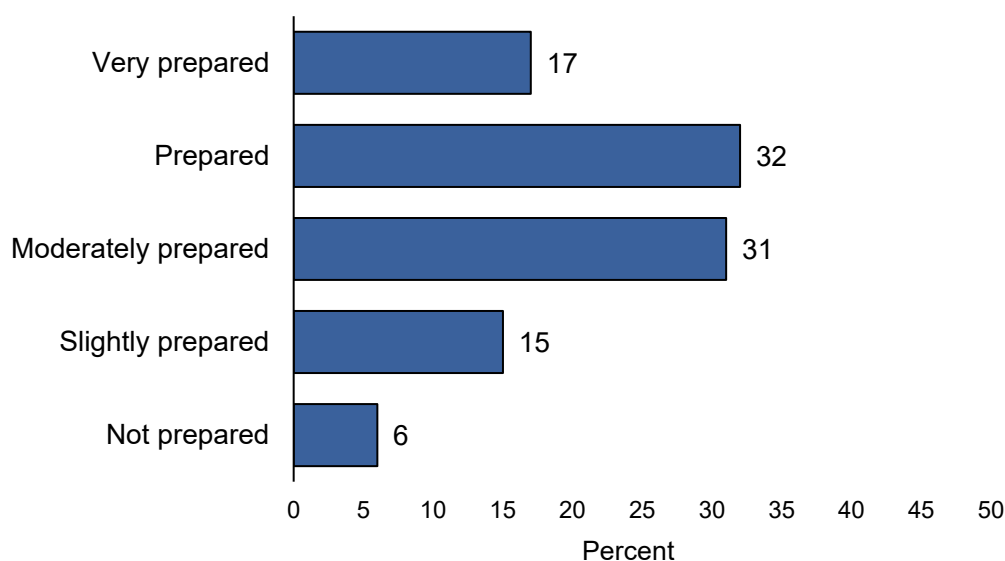
Not only do many students consider themselves prepared to choose a career direction, a large majority (80%) strongly to moderately agreed that they looked forward to doing so (Figure 10).

Figure 10. Percentages of Students Reporting Their Level of Agreement on the Influence of Career Planning Activities
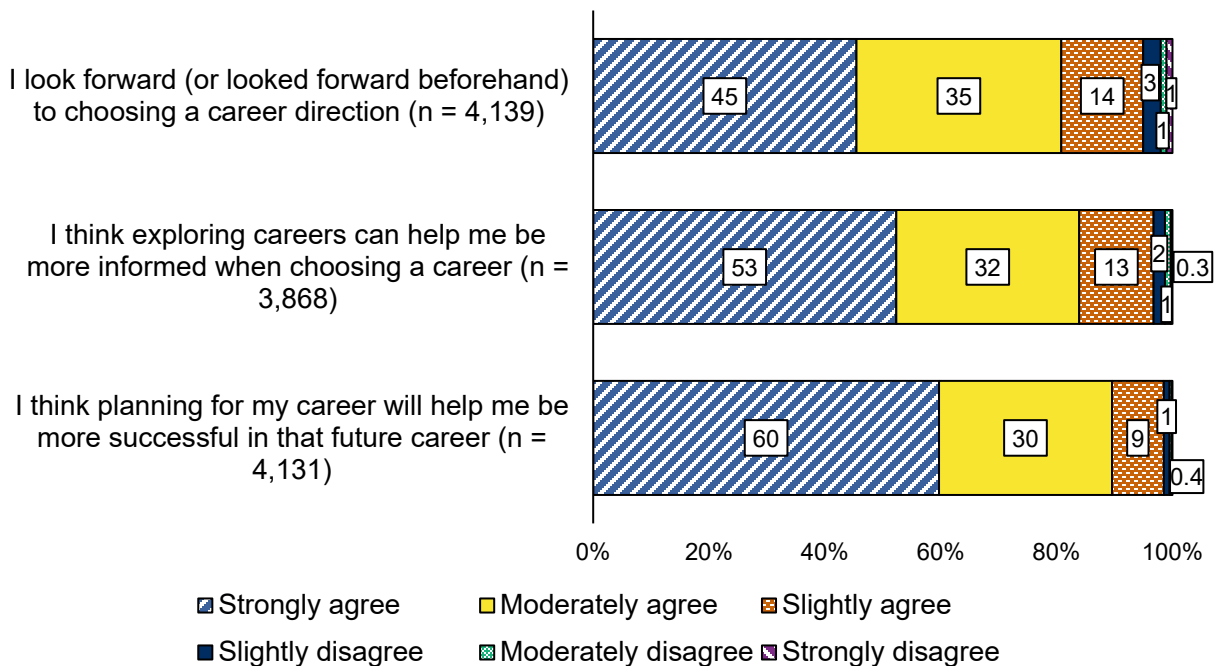
Note. The *n* counts are unweighted sample sizes, while the percentages were calculated after weighting.

Students also anticipated positive consequences resulting from career planning. Over half (53%) strongly agreed that career exploration could help them be more informed when choosing a career, with nearly another third (32%) indicating that they moderately agreed. The benefit of career exploration activities was illustrated by one student:

> *"Job shadowing and learning more about what sorts of jobs that are out there so I can make a choice that I know I am informed well on"*

Even more students (60%) strongly agreed that career planning would help them be more successful in their future careers, with nearly one third (30%) reporting that they moderately agreed. Two students summed it up:

> *"Successful planning and development to get the best results and be the best prepared for my future career"*

> *"In planning for my career, I'm planning for my future and I want future me to be successful."*

Discussion

In this study, we investigated high school students' thoughts on the importance and influence of career planning, their engagement in planning activities, and their career planning challenges. Career planning is important in preparing students for success along their career journeys. This is particularly salient given projected changes to the labor market, such as job task automation and shifts in emerging and declining jobs, which will require students to adapt their skills and acquire information about different occupations.

Nearly all the surveyed students thought that career planning was important. Among the top categories students referred to when describing career planning were the acquisition of knowledge and skills for career success and understanding as much as possible about career options, both of which are important for a future labor market with job churn and ongoing changes to skills. In their comments, students also underscored that career planning involved looking ahead and creating a career roadmap that included key steps to achieve goals, backup plans, and ways to overcome obstacles. Another aspect of career planning students centered on was using personal characteristics (e.g., interests, values) and preferences (e.g., lifestyle) to make personally relevant career choices. Additionally, students pointed to the importance of having as many career-related experiences as possible to support their career success. These students' thoughts about career planning are reinforced in the literature. In describing proactive career behavior (career sustainability behaviors in adults), Lent et al. (2024) pointed to three interrelated factors: 1) a combination of planning or looking ahead, developing skills, and engaging in self-reflection, 2) consulting with others, and 3) exploring or searching. Engaging in these behaviors, in conjunction with other factors, contributed to perceived job marketability (Lent et al., 2024). Further, Lindstrom Johnson et al. (2014) pointed to the importance of acquiring knowledge, skills, and behaviors to achieve career goals. In a meta-analysis, Hanna and Rounds (2020) found that interest was a strong predictor of career choice, supporting students' use of their interests in making their career choices. Research has also highlighted that work experience positively influences self-efficacy (enhanced confidence) and outcome expectations (beliefs about the consequences of actions), which help to clarify interests (Sheu & Bordon, 2017). Hence, the clarification of interests can help students become better informed about their career goals.

Students described a number of the career planning tasks they engaged in, and they thought these tasks should be completed by high school graduation. These tasks focused on identifying careers that related to their interests, values, and skills/abilities, along with searching for information about careers and the education or training required for careers. Students also thought that by graduation, it was important to identify knowledge and skill gaps related to career goals and to create realistic pathways to their careers. A majority of students also talked with people in their career fields of interest. While fewer students had participated in career-related experiences (perhaps due to the limited availability of these experiences during high school), a majority planned to do this, consistent with the importance they mentioned when describing career planning. Even though a majority of high school graduates thought schools should prepare them for future careers, few were exposed to careers during school (YouScience, 2022). And a large majority of high school students considered it important to

complete career planning tasks by graduation, but schools are not necessarily positioned to support career planning. School counselors have a critical role in providing career development activities to students, but many have limited time to focus on these efforts due to the need to spend time counseling students about their personal needs and the selection of high school courses (National Association for College Admission Counseling, n.d.). Schools may also work from a narrower definition of planning that primarily includes education as preparation for college rather than also including education as preparation for a career. It is also the case that while most states either require or encourage schools to develop individualized career plans for students, their quality and implementation are varied (Solberg et al., 2023).

The high school students engaged in a variety of exploration activities where they searched for information about themselves and careers. A majority of them agreed that they wanted to further explore, or had further explored, careers and did not agree that the value of career exploration prior to choosing a career was overrated. These are positive findings, because the literature supports the value of career exploration. In one study, career exploration contributed to setting out plans for careers among first-year college students (Creed et al., 2009). Further, engaging in work experiences and activities where individuals can explore and learn more about careers positively influenced educational aspirations (Rottinghaus et al., 2002); when these aspirations lead to attaining postsecondary education, they can provide for more "good job" opportunities. Based on results from a meta-analysis, career exploration is also related to important outcomes such as career decidedness (where individuals are more confident or certain about their career choices) and perceived employability (Kleine et al., 2021).

At the same time, a third of the surveyed students believed that the value of career exploration was overrated, and this was more pronounced among some groups than others. Far more Black and Latinx students than Asian and White students thought the value of career exploration was overrated. More students from a low-income family background also thought career exploration was overrated compared to students from medium- and high-income family backgrounds. It was also the case that more students whose caregivers had no college education held this belief than students whose caregivers had some college education but no degree or had college degrees. Chen et al. (2021) highlighted that family economic status and education level both influence career exploration. For example, parents with a higher economic status intentionally participated in their children's development, including interest and ability development associated with exploration, whereas parents with a lower economic status thought their children's development occurred more as a natural process (Marjoribanks, 2002). Thus, students from lower income families may not perceive value in career exploration if these types of tasks are not a focus. Further, students' financial situations and the role models they see in occupations requiring less education may influence their beliefs about which career paths are available to them, which in turn could affect their perceptions of the value of career exploration.

Career decision self-efficacy, the belief or confidence in one's ability to carry out the task of choosing a career, has also been shown to affect career exploration. A recent study (Sheu, 2023) showed that while students were taking an exploratory course, there was a reciprocal positive relationship between career decision self-efficacy and career exploratory behavior for first-year European American college students over time, while career exploratory behavior had

a beneficial effect on career decision self-efficacy only at the end of the time period for students of color. In this study, students were challenged, or anticipated they would be challenged, by a lack of confidence in making a good career decision. It may be possible that Black and Latinx students did not perceive a direct benefit from engaging in career exploration tasks and, as a result, were more likely to consider the value of career exploration overrated. On the other hand, an overwhelming percentage of the surveyed students agreed that career exploration could help them make more informed choices.

Engaging in career planning activities and experiencing career challenges also influenced students' level of agreement that the value of career exploration was overrated. Students who had more career-related experiential activities had a higher level of agreement that the value of career exploration was overrated. This may be due to students devaluing other forms of career exploration compared to their career-related experiences. Or the students may have had negative career experiences and perceived this exploratory option as having less value despite the possibility that they learned about career paths to avoid. Similarly, the more challenges students had with matching their characteristics with careers and the more challenges students had with career motivators (such as lacking career decision confidence or career expectations differing from those of family) the more they agreed that the value of career exploration was overrated. Accurately matching personal characteristics with the characteristics of careers requires exploration of interests, abilities, and preferences, as well as considerable career exploration. Students may consider the value of career exploration overrated if they lack understanding of their personal characteristics or the process necessary to compare and prioritize these characteristics in relation to careers. Further, with career decision self-efficacy positively contributing to career exploration (Sheu, 2023), students who have lower career decision confidence may perceive career exploration as having less value. At the same time, career exploration can boost career decision self-efficacy, as the two have a reciprocal relationship, which suggests the importance of encouraging career exploration. Patton and Porfeli (2007) highlighted the importance of parents and families in supporting adolescents' career exploration and aspirations, and thus, when family expectations differ from student expectations, it may create a dissonance that negatively influences the perceived value of career exploration. At the same time, the more challenges students had gaining career knowledge, the less they agreed that the value of career exploration was overrated. Here, students may think that career exploration is an important way to offset knowledge gaps by increasing their understanding of different aspects of careers.

Interestingly, a majority of high school students considered themselves prepared to choose their career direction and looked forward to choosing that career direction but lacked the confidence to make good career choices. Confidence in one's ability to choose a career goal contributes to being ready to make a career choice (Hirschi, 2011). Additionally, many students engaged in career-related search tasks but reported a lack of knowledge of careers and were challenged by inconsistent information. These students had also engaged in career planning tasks related to matching their personal characteristics (such as interests and skills) to careers and found these tasks challenging as well. Further, many students identified a lack of knowledge of the steps needed to choose careers with an inability to choose a career because there were too many options. These findings suggest that students may need to learn more about how to make

connections between who they are in terms of their interests, skills, and preferences and the corresponding characteristics of occupations. As part of their career planning, students also need to learn more about the career decision-making process and the analytical skills that would make the task of choosing a career more manageable by helping them narrow their career options. Ultimately, these results suggest that students may not be as prepared to choose their career direction as they indicated.

Ninety-nine percent of the surveyed students agreed that career planning would help them be more successful in their future careers. Based on the findings of this study, there are several possible actions that high schools could take to better help students achieve this success.

- Schools could implement career planning activities that focus on helping students make connections between who they are, where they are, and what they are doing or plan to do in the future. For example, schools could emphasize academic knowledge and skill building in a career context to help students connect what they are learning with their futures. In addition, they could use valid career planning assessments of interests and values to begin the conversation about careers that align with students' personal characteristics and follow this up with more opportunities for students to reflect on what will motivate them to pursue a specific career direction.

- Connect students with trustworthy sources of information to help them increase their knowledge and reduce potential inconsistencies. Provide access to formal and informal resources (e.g., college and career planning websites, employers) and opportunities to use these resources and gather information (e.g., field trips, career fairs). Ensure that students have a wide range of information about education, training, and careers available after high school so that they better understand their options and different paths to achieve their goals.

- Connect students with personalized work-related experiences (e.g., internships, work-based learning opportunities, volunteering, mentoring). This will promote important and desirable learning experiences where students can further understand what they like or dislike about work tasks and gain insight into whether a particular career path may be right for them.

- Provide opportunities to engage parents, employers, and others who may serve as informal career advisors. Encourage participation as guest speakers, interviewees for students who conduct a "day in the life of a job" interviews, sponsors and attendees at career fairs, and participants in job shadows. This allows students to connect with others about careers, better understand how their education is relevant to careers, and recognize the importance of career planning when it is considered a priority.

- Build in mechanisms to ensure that schools focus on preparation for education and career paths for all students, whether they go to college before entering the workforce or go directly into the workforce after graduation. When creating individualized career plans with students, include goals, steps, and potential obstacles with solutions for overcoming

them. Track students' career planning progress and use progress measures (e.g., completion of goal-relevant coursework, grade-point average needed for desired major or program of study) to identify what changes to implement (including changes to career goals) and when to implement them. Review career plans regularly and provide supports needed to help students progress successfully along their career paths.

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Notes

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[1] All student quotes in this paper are reproduced as written and without editing.

[2] Thematic qualitative analysis procedures were conducted to analyze students' responses to the open-ended questions. All responses were read, segmented by relevance (irrelevant comments were excluded), and coded by a qualitative research expert to construct tentative categories. These categories were then reviewed and verified by a second qualitative research expert.

[3] For family income, three groups were compared: low income (annual family income less than $36,000), medium income (annual family income between $36,000 and $100,000), and high income (annual family income more than $100,000). Students who did not report their family income were excluded from this analysis.

[4] For parental education, three groups were compared: students whose parent(s)/guardian(s) did not have any college experience, students whose parent(s)/guardian(s) had some college experience but did not have a bachelor's degree from a 4-year institution, and students whose parent(s)/guardian(s) had a bachelor's degree or higher. Students who did not report the education level of their parent(s)/guardian(s) were excluded from this analysis.

[5] A multiple linear regression model was conducted with agreement on the value of career planning being overrated as the dependent variable (strongly agree = 5, moderately agree = 4, slightly agree = 3, slightly disagree = 2, moderately disagree = 1, strongly disagree = 0). The independent variables included gender (female as the reference group), race/ethnicity (White as the reference group), family income (high income as the reference group), parental education (college or more as the reference group), number of information-searching career exploration activities participated in (Q6—items 1, 5, 9; see the technical appendix for the actual items), number of career identification activities participated in (Q6—items 2, 3, 4), number of career experiential activities participated in (Q6—items 6, 7, 8), number of career matching challenges experienced (Q7—items 1, 2, 4), number of career knowledge challenges experienced (Q7—items 3, 6, 8, 9), and number of motivation challenges experienced (Q7—items 5, 7, 10). The reported factors were significant predictors at .05 alpha level.

Technical Appendix

Sample

This study focused on students' understanding of and attitude about career planning, including how they define career planning, whether they consider career planning important, how engaged they are in career planning, and what barriers or difficulties they have encountered in career planning. This report summarized the findings from the quantitative and qualitative data analysis.

The target population was high school students who registered for the December 2023 ACT national test and reported that they were residing in the U.S. The sampled population was $N =$ 76,395 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 50,080 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 some of them did not attend college. The sample was stratified on racial/ethnic group to ensure there were enough respondents for analyses by race/ethnicity.

Students were invited via email to participate in the online survey. The survey opened on December 9, 2023, and closed on January 3, 2024. A total of 4,157 students answered at least half of the required questions (i.e., the selected-response questions). This group was used as the analytical sample of the survey (a response rate of 8%). 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.

We used propensity weighting to weight the responses to match the sampled population, compensating for the differences in sample size and the overrepresentation of respondents from subgroups. We also conducted a multiple imputation to address the issue of missing data in calculating weights. The imputed data were not used in other analyses.

Student characteristics (gender, race/ethnicity, family income, parental education) 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 and parental education at the end of the survey due to the relatively high rate of missing data for these two characteristics in the ACT registration data.

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

Characteristic	Group	Sampled population (N = 76,395)	Analytical sample (n = 4,157)	Weighted analytical sample (n = 4,157)
Gender	Female	56	68	57
	Male	42	31	42
	Other/unknown	1	2	1
Race/ethnicity	Asian	3	6	3
	Black/African American	15	14	15
	Hispanic/Latinx	13	15	13
	Other [b]	5	6	5
	White	59	56	59
	Race/ethnicity missing	4	3	4
Family income [c]	<$36,000	17	18	17
	$36,000 to $100,000	34	38	34
	More than $100,000	49	43	49
Parental education [d]	No college	14	15	15
	Some college	16	17	17
	College or higher	58	59	58
	Parental education missing	12	9	9

[a] If some percentages do not add up to 100%, it is due to rounding. [b] Other races/ethnicities include Native American, Native Hawaiian/Other Pacific Islander, and two or more races/ethnicities. [c] The percentages of the family income variable were calculated using the data from multiple imputation. [d] Parental 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.

Regression Results Table

Table A2. Regression Coefficients for Predicting Level of Agreement on the Value of Career Planning Being Overrated

Independent variable	Estimate	Standard error	t	p
(Intercept)	1.53	0.12	12.35	<0.01
Asian	0.07	0.16	0.47	0.64
Black	0.49	0.09	5.42	0.00
Hispanic/Latinx	0.04	0.10	0.37	0.71
Male	0.17	0.06	2.93	0.00
Middle income	0.02	0.07	0.32	0.75
Low income	0.27	0.10	2.61	0.01
Parental education: some college	0.15	0.08	1.90	0.06
Parental education: no college	0.14	0.10	1.48	0.14
Information-searching career exploration activities	−0.07	0.04	−1.83	0.07
Career identification activities	−0.04	0.04	−1.12	0.27
Career experiential activities	0.42	0.03	14.69	<0.01
Career matching challenges	0.10	0.04	2.79	0.01
Career knowledge challenges	−0.12	0.03	−4.00	0.00
Motivation challenges	0.10	0.04	2.60	0.01

Survey Instrument

The following are the relevant survey items for this issue brief:

1. To what extent do you feel prepared to choose a career direction? (Scale: very prepared, prepared, moderately prepared, slightly prepared, not prepared)

2. What does "planning for your career" mean to you? (Open-ended)

3. Overall, how important do you think it is to plan for your career? (Scale: very important, important, moderately important, slightly important, not important)

4. How important do you think it is to do the following tasks by the time you graduate from high school? (Scale: very important, important, moderately important, slightly important, not important)

    -   Identify a potential career goal or goals
    -   Identify education/training needed for career goal(s)
    -   Evaluate how your career goal(s) match up with your personal characteristics (e.g., interests, abilities, values)
    -   Gather information on how to achieve your career goals
    -   Identify any gap between your current knowledge and skills and those needed for future career goal(s)
    -   Create a realistic pathway for achieving your career goals

5. To what extent do you agree or disagree with each of the following statements? (Scale: strongly agree, moderately agree, slightly agree, slightly disagree, moderately disagree, strongly disagree)

    -   I look forward (or looked forward beforehand) to choosing a career direction
    -   I would like to do (or have already done) more exploring of different careers
    -   I think exploring careers can help me be more informed when choosing a career
    -   I think the value of exploring different careers before choosing a career is overrated
    -   I think planning for my career will help me be more successful in that future career

6. Have you engaged in the following career exploration activities? (Scale: yes; no, but plan to; no, and do not plan to)

    1) Search for information about different occupations (e.g., work tasks, job growth)
    2) Identify careers that relate to my interests
    3) Identify careers that relate to my abilities and skills
    4) Identify careers that relate to my values (what is important to me)
    5) Talk with people who work in careers that interest me
    6) Do a job shadow in a career that interests me
    7) Volunteer where people have a career that interests me
    8) Participate in a summer work experience in a career to learn more about it

9) Search for information about education and training requirements for one or more careers

7. Do you think you will (or did you) experience the following challenges when exploring or planning for future careers? (Scale: yes, no)

1) Not sure what careers match my interests
2) Not sure what careers match my skills/abilities
3) Lack of understanding about different occupations (e.g., work tasks, work settings)
4) Difficult to find a career that fits with the college major I want to pursue
5) Lack of motivation to choose a career
6) Unable to make a decision because of too many career options to choose from
7) Lack of confidence that I will make a good decision on a future career
8) Lack of knowledge of what steps to take to make a career choice
9) Getting contradictory information about a career from different sources
10) My career expectations differ from those my family has for me

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