

How Do Incoming Community College Students Think About Programs of Study and Potential Careers?

By Hana Lahr, Veronica Minaya, Rachel B. Baker, and Patrick Lavallee Delgado

“What’s your major?” is one of the most common questions that new college students are asked. Choosing a major, or program of study, is an important decision, in large measure because of the consequences for students’ future employment and earnings (Carnevale et al., 2017; Jenkins et al., 2025; Minaya & Scott-Clayton, 2022). Yet research indicates that many students enter community colleges and other higher education institutions without a clear idea of their intended major or how to select one (Baker, 2018; Schudde et al., 2020).

While the importance of program choice is not new, past research has not provided a complete understanding of how community college students consider programs of study and careers upon entry to college, the level of certainty students have when they first select a particular program, or how their initial selection might change. Choosing a program of study is not typically a one-time decision made at the start of college; many students change their minds about their chosen program (National Center for Education Statistics, 2017). However, at most colleges, students select one program they are interested in on their application to the college. They are rarely asked to indicate how sure they are of this decision or what other programs they may be considering.

Students are more likely to complete a degree if they are in a program aligned with their goals (Allen & Robbins, 2010; Tracey & Robbins, 2006). One challenge for community college students, who may be less familiar than four-year college students with different programs of study and their relationship to careers, is that they typically receive little guidance to explore and choose a program of study (Bailey et al., 2015; Deil-Amen & Rosenbaum, 2003; Jenkins et al., 2020; Jenkins & Lahr, 2022). Optional support services combined with large advising caseloads, a focus on acquainting students with college policies and procedures (as opposed to programs and careers), and an influx of new students before the start of each fall term means that many students do not receive any initial advising to help learn about programs aligned with their interests and goals (Kalamkarian et al., 2018; Ledwith, 2014). An additional challenge is that community colleges offer a very wide array of programs, including workforce-oriented certificate and degree programs and associate degree programs designed for transfer to four-year

institutions. The potential labor market returns for these credentials vary widely based on both the field of study and type of award (Baum & Espinosa, 2021; Carnevale et al., 2021; Jenkins et al., 2025). Across degrees and certificates, returns are higher for healthcare, quantitative, and advanced technology fields and are lower for humanities, education, and social science fields (Bahr, 2016; Belfield & Bailey, 2017; Holzer & Xu, 2021; Jenkins et al., 2025). The lack of guidance provided to new and continuing students, along with the wide range of offerings, means that many students may not consider unfamiliar high-value programs of study, such as those in STEM fields (Baker & Orona, 2020; Chen, 2005).

Without institutional support to learn about programs of study and clarify their interests and goals, community college students are often deemed “undecided” or “exploratory” and are steered into general degree programs, as entering students who seek financial aid must enroll nominally in some kind of program. These programs lead to weak transfer and labor market outcomes. Indeed, most students who enter community college begin in general studies or liberal arts associate degree programs, which are technically designed for transfer to four-year colleges but do not prepare students well to transfer with junior standing in a specific major because they do not include the necessary lower division coursework (Fink et al., 2018). These degree programs have little labor market value on their own (Backes et al., 2015; Belfield & Bailey, 2017; Holzer & Baum, 2017; Jenkins et al., 2025).

In this report, we aim to add more nuance to the field’s understanding of entering community college students’ thinking about choosing a program of study, their certainty about this choice, and how well students’ educational and career goals align when they are starting college. We do so by using data from a survey administered during students’ first two months of college that asked students to list multiple programs and careers they were considering and how confident they were about these choices. These data allow us to examine how certain students are about their choices and how aligned their academic and career goals are. After describing the study and its findings, this report discusses implications for colleges seeking to better support students as they go through the important educational process of choosing a program of study.

Our findings underscore the complicated nature of students’ program and career decision-making. We find that the majority of entering students in our survey were considering multiple programs and careers, often in unrelated fields; at the same time, half the students reported being very certain about their selection of their first-choice program. We also conducted interviews with faculty and staff at the same colleges where students were surveyed. We learned about the wide range of programs and services that the colleges offer to help students clarify their program and career decisions—we report on this in a separate CCRC brief (Klempin et al., 2025)—yet, many students who completed our survey reported having only limited support in making these decisions.

About This Research Project

This report is part of a larger study that explores how first-time community college students learn about and choose a program of study. The study uses a three-wave panel student survey (the current report uses data from the first wave), student transcript data, and student, faculty, and staff interviews to explore students' decision-making about programs of study over time. We examine what perceptions students have about programs when they arrive at college, who shaped their college plans before their arrival, and how their perceptions about programs change over three terms at college. The study takes place at four community colleges in California, Maryland, Ohio, and Texas.

Data and Methods

Program and Career Choice Survey

The community college student survey we developed and used was focused on three topics: the student's educational and career goals, the student's current thoughts on the program(s) they intend to pursue and the factors that are most important to them when selecting a program, and the people and experiences inside and outside the college that are informing the student's program choice(s). We also included a series of demographic questions to better understand each student's financial, career, and familial contexts.

The survey was administered in Qualtrics; optimized to be easily completed on a computer, tablet, or cell phone; and designed to be completed in 20 minutes. We had the full survey professionally translated into Spanish, and students could choose to respond to questions in either Spanish or English. While the bulk of the survey was the same across the four colleges, we customized certain sections to represent the specific programs of study, resources, and supports available on each campus.

Student Sample and Survey Administration

The first wave of the survey was administered to 12,628 first-time-in college (FTIC) students at four community colleges in California, Ohio, Maryland, and Texas during the fall 2023 term (the second and third waves of the survey were administered in the spring 2024 and fall 2024 terms). The colleges in our sample include one urban, two suburban, and one rural college; two colleges are Hispanic-Serving Institutions, and one is a Predominantly Black Institution.

Students were recruited via email, text message, and in-class presentations about the study. To reach students early in their college experience, we launched the survey in the second or third week of each college's fall term. On the date the survey opened, all first-time students who were at least 18 years old received a personalized email inviting them to participate in the survey. That same day, our team also conducted in-person visits to recruit students in person. Ahead of the visits, we worked with each college's institutional research offices to identify classes with a large number of first-time students. We emailed the faculty who taught these classes to request 30 minutes of class time to introduce the survey, help students find the survey in their email, and provide students

with time to complete it in class. Across the four colleges, we visited 188 classes. Over the course of the next two months, we sent eight additional emails and one text message to remind students about the survey. We closed the survey at the end of November 2023. All students who completed the survey were given a \$25 Visa gift card as a token of appreciation.

A total of 4,515 students completed the first wave of the survey. Table 1 below shows the response rates by college, which varied between 30% and 46%. From self-reported demographic data in the survey, 59% of respondents are female, and 40% reported that they are the first in their family to attend college. Students could select more than one race/ethnicity category; the sample was 33% Hispanic, 15% White, 20% Black, 3% Asian, 1% Native American, and 24% multiracial (primarily Hispanic and White, or Hispanic and Native American).

Table 1. Student Responses to the Survey by College

College	FTIC enrollment (fall 2023)	Responses by college	Response rate
College 1	1,714	676	39%
College 2	1,368	517	38%
College 3	2,722	1,264	46%
College 4	6,824	2,058	30%
Total	12,628	4,515	36%

Findings

Here we describe findings from responses to a set of key questions in the first wave of the survey. We present findings from the sections of the survey that focus on FTIC students’ educational and career goals and their thinking about programs of study. As these data were collected during students’ first two months in college, they represent students’ thinking early on in their college experience. We present results for the full cohort of students and do not report differences by college.¹

Incoming Students’ Educational and Career Goals

What are first-time community college students’ educational goals?

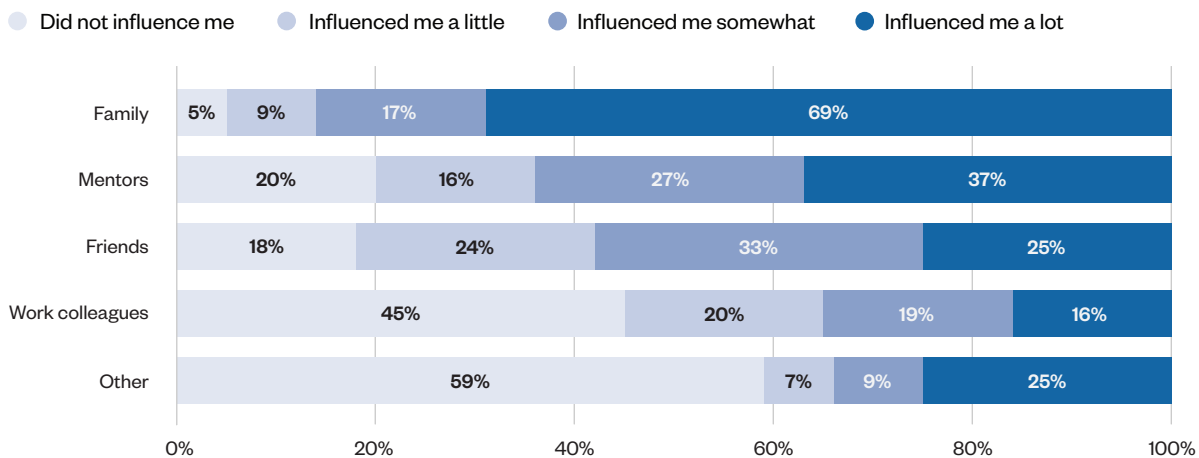
The survey opened with questions about students’ long-term educational goals, which could include credentials that students hoped to earn at their starting community college (including certificates and associate degrees) and beyond (bachelor’s and graduate degrees). When categorized by highest educational aspiration, 3% of students aimed for a certificate, 13% for an associate degree, 43% for a bachelor’s degree, and 37% for a graduate degree. An additional 5% of students reported uncertain or unknown goals. A greater proportion of women (42%) hoped to earn a graduate degree compared to men (30%). The generally high educational goals we observed align with findings from national surveys: Estimates from surveys of entering community college students indicate that about 83% aspire to transfer to a four-year college

or university (CCCSE, 2023); about 43% aspire to a bachelor’s and an additional 34% aim for a graduate degree (authors’ calculations using survey data from the National Center for Educational Statistics [NCES, n.d.]).

Who most influences students to attend college?

We also asked who most influenced students to go to college. The students in our study clearly identified family as being the most influential people in their decision to attend college, with 69% of respondents indicating that family members “influenced me a lot” to attend college. The next largest groups were mentors and friends (see Figure 1). Students also reported that they shaped their own thinking about going to college. Of the students who selected that “other” people influenced them at least a little, 15% indicated that they themselves were the person most influencing them to attend college. These findings comport with those of prior research. For example, numerous studies have shown family members to be an important influence on students’ post-high school educational aspirations (e.g., Chan & Hu, 2023; George Mwangi et al., 2019; Oymak, 2018)

Figure 1. People Who Influenced Students to Attend College



What careers are students considering?

Next we asked students to list up to three careers that they were considering and specified that they should list their top career choice first. We provided an open-text response field for each career and limited their response for each to four words. Students listed an average of 2.7 careers. As shown in Table 2, a majority of students (65%) reported three careers of interest, 14% listed two, and only 10% listed just one career. Most students in our sample were interested in multiple careers when starting college.

Table 2. Number of Careers Students Considered

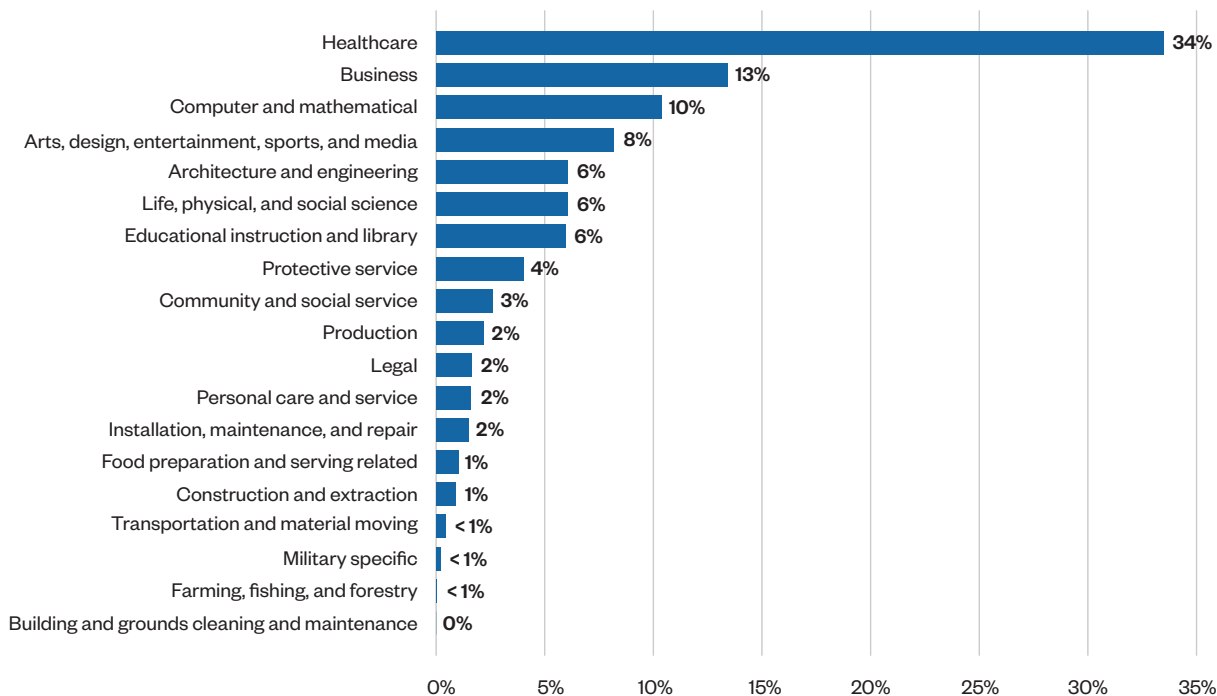
Number of careers	Percentage of respondents who chose this many careers
No career	2%
One career	10%
Two careers	14%
Three careers	65%
Four or more careers*	9%

* While we provided only three open-text fields in the survey question for respondents to list career choices, 9% of students listed more than one career in a field, resulting in some students listing more than three careers.

We coded all career responses using the Occupational Information Network (O*NET) taxonomy, a federal resource that defines the set of occupations in the U.S. economy and describes the characteristics and requirements of workers and jobs in each occupation. O*NET codes uniquely identify occupations with an eight-digit number, with every two digits describing an increasing level of specificity. O*NET also includes titles, descriptions, and associated tasks, skills, activities, contexts, experiences, educational requirements, and other worker characteristics for each occupation. By coding students’ responses using the O*NET taxonomy, we can look at career selection patterns of individual students (to see, e.g., if they are listing careers in the same or different fields) as well as across students (to see, e.g., what fields are more popular). In future analysis that includes data from all three waves of the survey, we will be able to look at how students’ interests in careers change over time.

For responses in this first wave of the survey, we were able to code 88% of all responses to a corresponding 8-digit O*NET code, indicating that most students had specific careers in mind. Three percent of responses were coded at a six-digit O*NET code, 6% were coded to a four-digit O*NET code, and 2% of responses were coded to a two-digit O*NET code. One percent of the responses (121 in total) could not be coded at all because they were too vague (e.g., students wrote “technology” or “English”), included non-specific titles (e.g., “technician,” “consultant,” “operator”), were non-career responses (e.g., “marriage,” “retired,” “unsure”), or were uninterpretable.

Across the sample, students reported an interest in careers coded to 492 unique eight-digit O*NET codes (out of a total of 1,016 eight-digit O*NET codes). Among students’ first-choice careers, 371 unique eight-digit O*NET codes were represented. We categorized these by two-digit career clusters. As shown in Figure 2, the most popular career cluster was healthcare occupations: 34% of students who listed a codable career response identified a program within this cluster, followed by business occupations (13%), and then computer and mathematical occupations (10%).

Figure 2. First-Choice Careers of Students by Career Cluster

Note. The career clusters shown generally derive from two-digit O*NET codes that represent broad career fields. In two clusters—healthcare and business—we collapsed several two-digit O*NET codes with similar occupations into the same career clusters.

We also examined whether students were reporting career choices in similar or different occupational fields. We might expect that students who are more certain about a career would identify only one career or would identify related careers in the same field. On the other hand, if students are less decided they might list careers in multiple different fields. We therefore looked at whether students who reported more than one career listed careers in the same or different career clusters. We found that the majority of students (62%) who listed more than one career were considering careers in at least two different occupational fields, including 44% of students who were considering careers in two different clusters and 18% considering careers in three different clusters. However, this also means that more than a third of students (38%) listed careers within the same career cluster, indicating that they were considering only careers within the same broad occupational field.

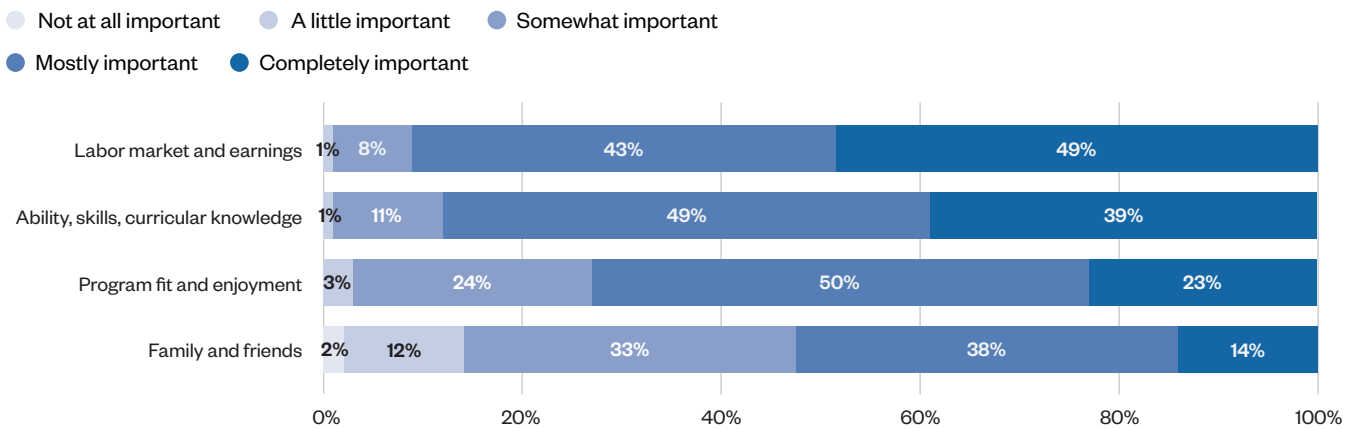
Decision-Making About Programs of Study

What factors are important in choosing a program?

The core focus of our study is understanding students' decision-making process for choosing a program of study and how this decision evolves over time. In this first survey, we asked students a series of questions about which factors were important to them in choosing a program of study. We grouped these factors into four areas (see Figure 3): (1) self-appraisal of ability, skills, and curricular knowledge related to the program; (2) having family or friends in the program or career field or wanting to make family happy; (3) program fit and enjoyment; and (4) the program's perceived labor market and earnings prospects. Each of these categories included four or five factors. For example, the five factors in the labor market and earnings category included: making a good salary, finding a job easily after graduation, having a good work-life balance, having various career options, and being able to support a family.

We asked students to rate the importance of each factor in choosing their program on a five-point scale, from “not at all important” to “completely important.” Next, we calculated composite scores for each area as the average across their underlying factors. We find that all four areas were important in students’ decision-making process for choosing a program. Each area was “mostly” or “completely” important for at least half of respondents. We also find that students gave relatively less weight to considerations of family and friends—compared both to other factor areas and especially in relation to our previous findings on the strong influence of family on students’ decision to attend college. Instead, our respondents almost uniformly prioritized factors concerning related ability and skills and perceived employment outcomes.

Figure 3. Relative Importance of Factors in Choosing a Program of Study



What programs and credential types are popular?

Next we asked students to select up to three programs of study that they were considering from a dropdown list of programs available at their college. The lists were provided by each college and were organized by type of credential (short- and long-term certificates, associate of arts, applied associate of science, etc.). The list for each college showed between 102 and 152 programs of study, which included different credentials in similar fields (e.g., a certificate and associate degree in cybersecurity would be listed separately). We organized the lists of programs by credential type, but we did not significantly modify them because we wanted the lists to resemble the lists of programs that students would have viewed when applying to the college and selecting a program.

While students taking the survey were required to select a minimum of one program from the list, 61% of students selected three programs of study. Fifteen percent of students selected two programs, and 21% selected just one program.

Eighty-nine percent of respondents’ first-choice programs were associate degree programs, 9% were certificate programs, and 2% were community college applied bachelor’s degree programs (offered at two of the four colleges). Looking across all the programs students selected in their first through third choices, we find that 63% of students selected only associate degree programs and that 29% selected a combination of certificate and associate degree programs. Four percent of students selected associate and community college bachelor’s degree programs, and 3% selected only certificate programs. Table 3 shows the percentage of students who selected different combinations of programs by credential type.

Table 3. Credential Combinations Across Selected Program Choices

Certificate	Associate degree	Community college Bachelor's degree	Percentage of respondents
	X		63%
X	X		29%
	X	X	4%
X			3%
X	X	X	1%
X		X	< 1%
		X	< 1%

After selecting programs they were considering, students were asked to rank them in order of their interest in the selected program. We classified all programs of study by two-digit CIP code, resulting in broad fields of study, or program clusters. Figure 4 shows the distribution of students' first-choice programs by cluster.² Twenty-three percent of respondents selected a program in the health professions field as their first choice; followed by 15% of students who selected a program in the business, management, and marketing field; and 10% who selected a program in the computer and information sciences and support services field. The remaining students selected a program in one of 27 other program clusters.

Figure 4. First-Choice Programs of Students by Program Cluster



Only 6% of students selected as their first choice a program in the “liberal arts and sciences, general studies, and humanities” cluster (the majority of the students in this cluster selected an associate degree program in liberal/general studies). This is notable because it represents a very small percentage of students. Yet, we know that many students who complete programs at community colleges generally do so in this program cluster. A recent analysis found that 59% of transfer associate degrees awarded by community colleges in the 2022-23 academic year were liberal/general studies degrees (Jenkins et al., 2025). Students in community colleges are often steered toward this degree in lieu of selecting a field-specific program so that they can take general education courses early on, before other courses. And, too, to qualify for financial aid, students cannot be “undecided”; they must be enrolled in a program of study. As a result, liberal/general studies programs often function as a stand-in for students who have not chosen a field-specific program.

How certain are students about their selected programs?

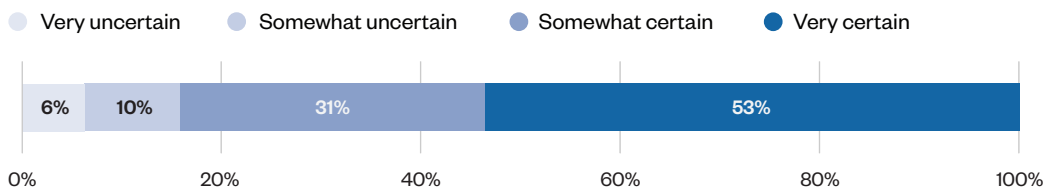
We also examine students’ sense of specificity and certainty about their selected programs of study. First, we look at the number of program clusters each student’s programs of interest fall under, which may indicate how narrowly students have defined their program interests. As shown in Table 4, we find that about three fourths of students (73%) who chose more than one program selected programs across more than one program cluster. About a quarter of students (27%) who chose more than one program selected programs that all fell under the same program cluster.

Table 4. Number of Program Clusters Students Considered

Number of program clusters	Percentage of respondents selecting more than one program who chose this many program clusters
One cluster	27%
Two clusters	47%
Three clusters	27%

Second, we examine data from a survey question that asked students how certain they were that they would end up earning an award in their first-choice program. As shown in Figure 5, a little more than half of respondents said they were “very certain” that they would end up choosing their first-choice program, and nearly one third were “somewhat certain.” Only 16% of respondents said that they were “somewhat” or “very” uncertain that they would end up selecting their first choice. Notably, most students in our sample expressed early confidence in programs outside of liberal arts. This underscores the importance of asking students directly about their program intentions—rather than assuming undecidedness or defaulting to liberal/general studies programs—since many respondents in the present study seemed confident in their choices from the outset.

Figure 5. Level of Certainty About First-Choice Program

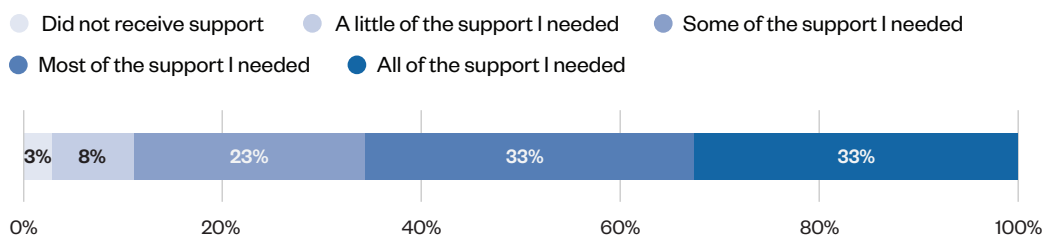


The percentage of students expecting to complete their first-choice program was higher than we expected given that this survey was administered within the first two months of students being in college and because we know from other research that many students change their majors and often do so multiple times (Denice, 2021; Schudde et al., 2020). Future research with this same group of students will shed light on students’ program-switching patterns as well as reasons for these changes.

Do students receive adequate support to choose a program?

We asked students whether they had received sufficient support to make a choice about a program of study. As shown in Figure 6, two thirds of students (66%) said that they had received most or all of the support they needed. Twenty-three percent of students said that they had received “some” of the support they needed, while the remaining 11% reported receiving little or no support that they needed.

Figure 6. Amount of Needed Support Students Said They Received to Choose a Program



Here again, the high rate of students saying that they had received all or most of the support they needed was somewhat unexpected because this survey was taken within students’ first two months of being a college student. It is also surprising given the large percentage of students who are still considering multiple career options and programs of study in different fields. At the same time, 84% of students reported being somewhat or very certain about their first-choice program. It may be that early support is helping students feel confident even as they continue to explore, or that students perceive initial support as sufficient even if their goals are still evolving. In some cases, such support may prompt students to shift their interests later toward programs or careers that they had not previously considered.

Program and Career Choice Alignment

How aligned are students’ career goals and their programs?

Although there is not always a clear connection between a program of study and a career, we examine whether there were similarities between students’ selected programs and careers using our survey data. As previously discussed, the most popular careers and programs among responding were in healthcare. Thirty-four percent of students selected a healthcare career as

their top choice, and 23% of students selected a program of study in the healthcare field as their top choice. This is likely not a surprising finding to those who work in community colleges, as many incoming students express interest in healthcare and in nursing in particular. We also find that, among students whose first-choice program was in the health professions, 93% indicated that their first-choice career is in healthcare practitioner occupations (see Table 5). This indicates a strong alignment between program and career goals. We also observe similar patterns in other fields. For example, of the students whose first-choice program was in business, management, and marketing, 74% indicated a first-choice career interest within the business field, and among the 419 students who selected a first-choice program in the computer and information sciences field, 84% also selected a first-choice career in that field.

Table 5. Students First-Choice Career by First-Choice Program

First-choice career cluster	First-choice program cluster				
	Health professions	Business, management, marketing	Computer and information sciences and support services	Physical and biological sciences	Visual and performing arts
Number of respondents	1,002 (24%)	652 (16%)	419 (10%)	398 (8%)	231 (6%)
Healthcare	93%	3%	0%	76%	2%
Business	1%	74%	3%	0%	3%
Computer and mathematical	1%	3%	84%	1%	3%
Arts, design, entertainment, sports, and media	0%	4%	3%	0%	80%
Architecture and engineering	0%	3%	5%	2%	1%
All else	5%	13%	5%	20%	11%

One potential explanation for the pattern of preferences in these program and career clusters comes from our research on the role and perspectives of faculty and staff in students’ program choice decision-making. We found that advisors and faculty noticed that students often choose what are viewed as “safe” fields—specifically healthcare and business—even when students have other interests (Klempin et al., 2025). This is an area for further exploration. Many students with an expressed interest in nursing and other limited-access healthcare programs will be faced with hard decisions because these programs cannot accommodate all the students who want to pursue them. Competitive application processes driven in large part by limited clinical spaces means that many students interested in these programs will have to switch to another program, either in healthcare or another field entirely, to complete a credential. The students who completed this first wave of the survey are not yet at the point where they would be faced with this challenge; however, our analysis of later survey waves will consider students’ experiences as they move further into their program requirements.

What are the career interests of students in liberal/general studies?

We also examine the career interests of the students who selected liberal/general studies as their first-choice program. As previously discussed, students are often advised into liberal/general

studies in order to complete general education requirements. However, while such students may be unsure of a field-specific program, students in our survey who selected liberal/general studies as their first-choice program expressed an interest in careers in multiple fields. As shown in Table 6, of the 266 students, 40% selected a healthcare occupation as their first-choice career, and 15% chose a career in the arts, design, entertainment, sports, and media career cluster. Our data do not help us to understand why these students did not choose a program in associated fields (at least as their first-choice program); this is an area for future study.

Table 6. First-Choice Career Clusters Among Students With a Liberal/General Studies First-Choice Program

First-choice career cluster	Percentage of liberal/general studies respondents who chose this career cluster
Number of respondents	266(6%)
Healthcare	40%
Business	8%
Computer and mathematical	5%
Arts, design, entertainment, sports, and media	15%
Architecture and engineering	9%
All else	24%

Discussion: Helping New Students Consider Programs and Careers

Oftentimes, new community college students are categorized as being “decided” or “undecided.” Decided students are assumed to be clear about their program choice, and undecided students are usually advised to seek out additional resources and support to help choose a program. However, our findings suggest that this either/or bifurcation fails to capture the complexity of students’ early thinking about programs of study they might pursue and careers that are of interest to them. Student responses to our survey also suggest that all new students—not just those who identify as undecided—would benefit from conversations and guidance about their goals and interests.

Our findings show that 84% of responding students were either “very certain” (53%) or “somewhat certain” (31%) about the program they listed as their first choice, while only 16% were somewhat or very uncertain. At the same time, most students we surveyed were considering multiple programs and multiple careers of interest, often spanning different fields. And prior research shows that many students change their program of study, sometimes more than once (NCES, 2017). These disparate findings raise important questions: How should we interpret students’ reported certainty in light of what looks like broader program and career consideration? What is behind students’ early confidence (which may not reflect a fully informed or final program decision)? Despite two thirds of respondents reporting that they had received most or all of the support they needed, do students need more opportunity to adequately explore and understand different program and career possibilities?

We also find that students weigh a range of factors when making these early program and career choices. While the influence of family and friends is often key in the decision to attend college, those persons appear less important in students' program and career decision-making. Instead, students are appraising their abilities and skills as they relate to programs and thinking about the likely labor market outcomes of programs, such as salary, job availability, and work-life balance. Still, how students weigh these different factors and how they apply these factors in their decision-making process remains opaque.

Even so, we see signs that when students have a clear career goal in mind, they tend to choose programs that align. We see strong alignment in fields like healthcare, business, and computer science. The picture is different for programs in liberal/general studies. Although only 6% of responding students listed these programs as their first choice, they account for the majority of transfer degrees awarded by community colleges nationally. This suggests that many students may be defaulting into liberal/general studies programs not out of interest but due to a lack of support at their college in connecting their career goals and interests to specific programs. Notably, over a third of students in liberal/general studies expressed interest in healthcare careers.

Prior CCRC research about onboarding has encouraged colleges to focus on having conversations with all new students about their interests, goals, and aspirations in order to help them learn about different programs and careers that may be unfamiliar to them, gain experiences in fields that they are interested in early on, and make a plan to meet their goals (Jenkins et al., 2025; Jenkins & Lahr, 2022). Our findings suggest that—given students' multiple areas of interest in both programs and careers—these conversations could start with how students came to be interested in certain programs. What appealed to them about these fields? What other programs sound interesting to them?

We learned from interviews with faculty and staff about different resources that are available through advising and college programs and services at the colleges we studied. Yet, while the majority of students reported receiving most or all the support they needed to choose a program, about one in three said they received only some or little or no support. Moreover, given that many students consider multiple careers and programs in different fields, there may be opportunities to strengthen guidance even for those students who feel supported. To better support students in making informed program choices, colleges might consider moving beyond the traditional “decided” versus “undecided” student categories. Even students who express early confidence about their future plans can benefit from conversations about their interests and goals and about less familiar program options. These conversations could be integrated into onboarding or first-year seminars that promote exploration and offer low-stakes opportunities such as shadowing or brief exposure to different fields. Colleges could also provide additional support to increase faculty engagement in program and career exploration. This could include a variety of supports, ranging from relatively low-touch engagements, such as faculty setting aside class time for presentations from career services staff, to more intensive professional development, such as offering training to faculty and others on local labor market trends.

Looking Ahead

The findings in this report provide insights into how new community college students are thinking about potential careers and programs of study. At the same time, these findings raise additional questions, many of which we will pursue in our analysis of students' responses to the second and third waves of the student survey and through student interviews conducted with students who completed all three waves of the survey. This research will shed light on how the student decision-making process unfolds over three terms in college and whether students remain as certain as they appear in their first term about their first-choice program, whether it changes, and why. We will also explore the people and experiences both inside and outside of college that shape students' program and career decision-making and the extent to which they lead to changes in students' goals and plans.

Endnotes

1. Overall, we find only small differences by college and for simplicity have chosen not to report them here; doing so would require providing additional context about each college—including details about the student body, college location, and program offerings—in order to make sense of the differences.
2. CIP codes, or Classification of Instructional Programs codes, are a system of six-digit numeric codes developed by the U.S. Department of Education's National Center for Education Statistics. They are used to classify academic programs in a standardized way. The first two digits represent broad subject areas. We redistributed programs in the multi/interdisciplinary studies cluster to other program clusters and combined the physical sciences and biological and biomedical sciences clusters into a single cluster we call physical and biological sciences.

References

- Allen, J., & Robbins, S. (2010). Effects of interest-major congruence, motivation, and academic performance on timely degree attainment. *Journal of Counseling Psychology*, 57(1), 23–35. <https://doi.org/10.1037/a0017267>
- Backes, B., Holzer, H. J., & Velez, E. D. (2015). Is it worth it? Postsecondary education and labor market outcomes for the disadvantaged. *IZA Journal of Labor Policy*, 4(1), 1–30. <https://doi.org/10.1186/s40173-014-0027-0>
- Bahr, P. R. (2016). The earnings of community college graduates in California (CAPSEE Working Paper). Center for Analysis of Postsecondary Education and Employment. <https://capseecenter.org/the-earnings-of-community-college-graduates-in-california/>
- Bailey, T., Jaggars, S. S., & Jenkins, D. (2015). Redesigning America's community colleges: A clearer path to student success. Harvard University Press. <https://doi.org/10.4159/9780674425934>
- Baker, R. (2018). Understanding college students' major choices using social network analysis. *Research in Higher Education*, 59, 198–225. <https://doi.org/10.1007/s11162-017-9463-1>

Baker, R., & Orona, G. A. (2020). Gender and racial differences in awareness and consideration of curricular programs: Exploring a multistage model of major choice. *AERA Open*, 6(3). <https://doi.org/10.1177/2332858420937023>

Baum, S., & Espinosa, L. (2021). Exploring the importance of low wage, high social value careers. Postsecondary Value Commission. https://www.postsecondaryvalue.org/wp-content/uploads/2021/10/PVC_Espinosa.pdf

Belfield, C., & Bailey, T. (2017). The labor market returns to sub-baccalaureate college: A review (CAPSEE Working Paper). Center for Analysis of Postsecondary Education and Employment. <https://capseecenter.org/labor-market-returns-sub-baccalaureate-college-review/>

Carnevale, A. P., Cheah, B., & Wenzinger, E. (2021). The college payoff: More education doesn't always mean more earnings. Georgetown University Center on Education and the Workforce. <https://cew.georgetown.edu/cew-reports/collegepayoff2021/>

Carnevale, A. P., Garcia, T. I., & Gulish, A. (2017). Career pathways: Five ways to connect college and careers. Georgetown University Center on Education and the Workforce. <https://cew.georgetown.edu/cew-reports/careerpathways/>

CCCSE. (2023). Helping community college students climb the transfer ladder. <https://cccse.org/NR2023>

Chan, H. Y., & Hu, X. (2023). Parental involvement and college Enrollment: Differences between parents with some and no college experience. *Research in Higher Education*, 64(8), 1217–1249. <https://doi.org/10.1007/s11162-023-09744-9>

Chen, X. (2005). First-generation students in postsecondary education: A look at their college transcripts (NCES 2005-171). U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. <https://nces.ed.gov/pubs2005/2005171.pdf>

Deil-Amen, R., & Rosenbaum, J. E. (2003). The social prerequisites of success: Can college structure reduce the need for social know-how? *The ANNALS of the American Academy of Political and Social Science*, 586(1), 120–143. <https://doi.org/10.1177/0002716202250216>

Denice, P. A. (2021). Choosing and changing course: Postsecondary students and the process of selecting a major field of study. *Sociological Perspectives*, 64(1), 82–108. <https://doi.org/10.1177/0731121420921903>

Fink, J., Jenkins, D., Kopko, E. M., & Ran, F. X. (2018). Using data mining to explore why community college transfer students earn bachelor's degrees with excess credits (CCRC Working Paper No. 100). Community College Research Center, Teachers College, Columbia University. <https://ccrc.tc.columbia.edu/publications/using-data-mining-explore-why-community-college-transfer-students-earn-bachelors-degrees-excess-credits.html>

George Mwangi, C. A., Cabrera, A. F., & Kurban, E. R. (2019). Connecting school and home: Examining parental and school involvement in readiness for college through multilevel SEM. *Research in Higher Education*, 60(4), 553–575. <https://doi.org/10.1007/s11162-018-9520-4>

Jenkins, D., Fink, J., & Velasco, T. (2025). Which community college awards are likely to prepare students for post-completion success? Community College Research Center, Teachers College, Columbia University. <https://ccrc.tc.columbia.edu/publications/community-college-awards-for-post-completion-success.html>

Jenkins, D., & Lahr, H. (2022). Research evidence on community college Ask-Connect-Inspire-Plan onboarding practices. Community College Research Center, Teachers College, Columbia University. <https://ccrc.tc.columbia.edu/publications/ask-connect-inspire-plan-onboarding.html>

Jenkins, D., Lahr, H., Pellegrino, L., Kopko, E. M., & Griffin, S. (2020). Redesigning community college student onboarding through guided pathways. Community College Research Center, Teachers College, Columbia University. <https://ccrc.tc.columbia.edu/publications/redesigning-community-college-onboarding-guided-pathways.html>

Holzer, H. J., & Baum, S. (2017). Making college work: Pathways to success for disadvantaged students. Brookings Press. <https://www.brookings.edu/books/making-college-work/>

Holzer, H. J., & Xu, Z. (2021). Community college pathways for disadvantaged students. Community College Review, 49(4), 351–388. <https://doi.org/10.1177/00915521211002908>

Kalamkarian, H. S., Boynton, M., & Lopez Salazar, A. (2018). Redesigning advising with the help of technology: Early experiences of three institutions. Community College Research Center, Teachers College, Columbia University. <https://ccrc.tc.columbia.edu/publications/redesigning-advising-technology-three-institutions.html>

Klempin, S. C., Fay, M., Thompson, A. H., Aguilar Padilla, E., & Converse, K. (2025). How community college students choose a program of study: Faculty and staff perspectives. Community College Research Center, Teachers College, Columbia University. <https://ccrc.tc.columbia.edu/publications/community-college-students-programs-study-faculty-perspectives.html>

Ledwith, K. E. (2014). Academic advising and career services: A collaborative approach. New Directions for Student Services, 2014(148), 49–63. <https://onlinelibrary.wiley.com/doi/abs/10.1002/ss.20108>

Minaya, V., & Scott-Clayton, J. (2022). Labor market trajectories for community college graduates: How returns to certificates and associate's degrees evolve over time. Education Finance and Policy, 17(1), 1–28. https://doi.org/10.1162/edfp_a_00325

National Center for Education Statistics. (n.d.) Beginning postsecondary students longitudinal study 2012/2017. [Dataset]. <https://nces.ed.gov/datalab/quickstats.aspx>

National Center for Education Statistics. (2017). Beginning college students who change their majors within 3 years of enrollment (NCES 2018-434). Institute of Education Sciences, U.S. Department of Education. <https://nces.ed.gov/pubs2018/2018434/index.asp>

Oymak, C. (January 2018). High school students' views on who influences their thinking about education and careers (NCES 2018-088). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. <https://nces.ed.gov/pubs2018/2018088.pdf>

Schudde, L. T., Ryu, W., & Brown, R. S. (2020). Major movement: Examining meta-major switching at community colleges. The Review of Higher Education, 44(2), 189–235. <https://doi.org/10.1353/rhe.2020.0044>

Tracey, T. J. G., & Robbins, S. B. (2006). The interest-major congruence and college success relation: A longitudinal study. Journal of Vocational Behavior, 69(1), 64–89. <https://doi.org/10.1016/j.jvb.2005.11.003>

Community College Research Center
Teachers College, Columbia University

525 West 120th Street, Box 174

New York, New York 10027

212.678.3091

ccrc@columbia.edu

[@CommunityCCRC](https://twitter.com/CommunityCCRC)

ccrc.tc.columbia.edu