Why Now? Understanding Pathways to Enrollment in Community College Noncredit Workforce Programs

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Introduction

Noncredit workforce education has emerged as a vital yet underexamined pathway in American higher education. Accounting for an estimated 40% of community college enrollment nationwide (American Association of Community Colleges, 2024), noncredit programs attract millions of adult learners annually. These programs serve diverse needs, providing occupational training geared toward adults seeking skills for new or current jobs; occupational training arranged and paid for by employers for their employees; English as a Second Language (ESL) courses for non-native speakers; and courses to pursue personal interests (Van Noy and Hughes, 2022). Some programs lead to credentials, while others do not.

This report focuses on students enrolled in community college noncredit occupational programs, which range from certificates in allied health to industry-recognized credentials in information technology (IT) to skilled trades training, offering accessible, career-focused education.[1] While once referred to as the "hidden college" due to its lack of visibility and status (Voorhees & Milam, 2005), noncredit education, particularly career-focused programming, is quickly growing in prominence. Student interest in these programs is high, with more than two-thirds of respondents to one survey indicating that, in considering higher education, they would prefer a nondegree to a degree-granting pathway (Strada Education Foundation, 2020). In recent years, the number of Americans reporting that they hold a nondegree credential has risen (Levine, 2025), and a majority of Americans now believe that a four-year college education is not worth the cost (Belkin, 2023). State investments to support attainment of short-term nondegree credentials continue to grow, with 26 new initiatives in 2025 alone (Murphy, 2025). Nationally, Workforce Pell offers the potential to expand funding and access to more noncredit programs.

The "hidden" nature of noncredit is also reflected in the lack of data on noncredit programs and their students. These data are not collected comprehensively or consistently, and this is true at both the national and state levels. Even basic information about enrollment patterns, student characteristics, and program outcomes is often unavailable or inconsistent (Van Noy et al., 2024). Without adequate data and research, it is challenging to assess the quality of noncredit offerings, understand which students are being served and how well, identify effective practices, or make informed policy decisions about funding and program development.

A few studies are beginning to provide a picture of noncredit students—one that reveals a diverse population at various life stages with various goals and education backgrounds. Many are balancing work and family obligations while seeking specific occupational skills and credentials to enter a career, change careers, or advance in their current field of employment (Douglas et al., 2023). As national survey data

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[1] Community colleges also offer credit-based career preparation courses and programs.

suggest, many are likely seeking alternatives to traditional degree pathways, looking for faster routes to employment in fields where credentials and demonstrated skills matter more than degrees (Strada, 2020). The circumstances that prompt adults to enroll or re-enroll in higher education through noncredit pathways are likely as varied as the students themselves, yet these contexts and motivations remain poorly understood.

The Need for Qualitative Understanding

Given the need for a deeper understanding of noncredit programs and the students they attract, qualitative inquiry is particularly crucial. Existing research on noncredit students is not only limited in scope but also predominantly quantitative in nature (Bahr & Columbus, 2023; Bahr et al., 2022; Douglas et al., 2023; Xu & Ran, 2020), leaving significant gaps in understanding student experiences, perspectives, and decision-making processes. Quantitative studies cannot illuminate the reasons behind enrollment decisions, the meaning students derive from their education experiences, or the complex interplay of factors that shape their education and career trajectories. Qualitative research moves beyond aggregate statistics to examine how individual students navigate these programs and what they hope to achieve.

The purpose of this study is to address these gaps through a multisite qualitative inquiry into the experiences of community college noncredit workforce students. This research asks: *Why and how do they enroll in noncredit workforce programs? What do they hope to gain from them?* By conducting in-depth interviews with noncredit workforce students at three community colleges across the country, we examine what draws students to these programs and how these programs fit into students' broader education and career journeys.

Focusing on students who do not already have college degrees, we examine how students' personal circumstances shaped their current efforts to earn noncredit credentials. We explore the considerations that informed the decision-making processes that led students to their noncredit programs rather than credit-bearing degree programs or other education pathways. We investigate the goals students brought to their programs, whether focused on immediate employment, career advancement, career change, skill development, or other objectives, and how those goals may have evolved. We also examine the challenges students faced as they pursued noncredit education, including how they balanced school with work and family responsibilities and managed financial constraints. Our analysis centers on students' own perspectives and narratives, recognizing them as experts on their own experiences and treating their insights as essential to understanding noncredit education.

We find that students enrolled in noncredit workforce programs are a diverse student population with often complex education backgrounds influenced by their own circumstances and experiences. Although intended education trajectories varied, most interviewees entered a noncredit program either to assist in obtaining a job immediately with no intentions for continued education or to prepare for a longer education pathway.

Significantly, our study revealed that most of our interviewees had previously enrolled in college but experienced "interrupted" and nonlinear higher education enrollment patterns. What brought them back to college? Feasibility, including affordability, was among the key considerations for enrollment; our interviewees emphasized the low or no-cost nature of their noncredit programs as well as the program's ability to fit into their lives. Finally, interviewees discussed how various information sources and influences informed their decision to enroll in their noncredit program. Overall, these findings shed light on the complex nature of students' decision-making as a process shaped by the interplay of their prior education histories, financial and life circumstances, their own goals, and the specific design and offerings of noncredit programming.

Overview of Relevant Literature

Students Enrolled in Noncredit Workforce Programs

As interest has increased in noncredit workforce programs and credentials, so have calls for better data. As noted, data on these programs and the students enrolled in them are very limited (Van Noy et al., 2024). Data are needed to understand the financial investments in these programs and the outcomes that those investments yield. Noncredit education has been identified as a potential avenue for promoting equity, yet limited data make it difficult to assess program quality and outcomes (D'Amico et al., 2023). Some preliminary studies have found modest gains associated with participation in noncredit education, though findings vary considerably by program type, credential level, and employment field (Bahr & Columbus, 2023; Bahr et al., 2022; Strada et al., 2019; McConville et al., 2021). A recent review of 15 key studies found that noncredit programs can lead to modest positive labor market outcomes, with those in male-dominated fields generally showing stronger wage gains (Van Noy et al., 2024).

Data are also needed to understand the student enrollees—their short- and long-term goals, the prior education and employment experiences they bring to their programs, and their challenges and needs for support in completing their programs. Yet, so far, these students are little understood and understudied. A few studies report on student characteristics from administrative data (Xu & Ran, 2020; Bahr et al., 2022). One compares the characteristics of noncredit to credit students and finds that the former were more likely to be older, male, and from underrepresented groups (Xu and Ran, 2020). Another study examining noncredit student data from colleges in five states observes that the majority of students were over 25 years old; in some states, most were male, but in other states, females dominated (Bahr et al., 2022). This study also finds that fewer than 10% of noncredit students took any credit-bearing courses within two years of their noncredit enrollment. With only these studies to draw from at present, the picture of noncredit students provided by administrative data is quite limited.

Surveys of noncredit students can provide more information, but gaining high response rates can be a challenge. A 2022 survey of students enrolled in noncredit workforce programs in two community colleges achieved response rates of 18% at one college and 5% at the other (Douglas et al., 2023). Survey respondents were older than traditional college-going age and were predominantly female and nonwhite. Students' goals for enrolling in noncredit programs were primarily to gain skills to pursue a new job rather than to progress in a current position. The respondents seemed unsure about whether their programs led to credentials and what type of credentials those may be—many reported that their programs did not yield any credential; that they were unsure about a credential; or that the credential was "other" than a certificate, badge, license, or industry-recognized credential. The main challenges to attending their programs were costs and competing responsibilities.

Other literature on adult college students, while not focused specifically on students in noncredit workforce programs, may be informative. A recent review finds that adult learners (defined as those ages 25 and older) were more likely to be female, enrolled part-time, and Black, compared to traditional-aged college students 24 and younger (Koller, 2025). Adult students were also much more likely to be working full-time and to be parents compared to younger college students. It is therefore not surprising that, given their work and family responsibilities, students who entered college when they were older had much lower persistence rates than those who entered between the ages of 18 and 20. A recent study of adult college students of color brings these adult responsibilities to the forefront in its title: *"Can I Make This Work with My Life?"* (Parsons et al., 2023).

Recent research has begun to explore the perspectives of students more deeply through qualitative interviews. Dadgar et al. (2024) conducted interviews with students enrolled in short-term manufacturing programs, including both credit and noncredit programs, to shed light on their experiences with these programs. This research shows clearly that students sought out these programs with a strong expectation that they would improve their employment situation and could become turned off from higher education when they did not. The study focuses on students' reflections on labor market outcomes in a particular industry, opening up many more questions to be examined across a range of industries about why students end up in these programs and what their expectations are.

Students' Enrollment Goals

Additional research is needed to help us understand students' motivations and goals in seeking noncredit education, since these can drive students' decision-making. What factors in individuals' lives prompt them to enroll or re-enroll at a particular time and in a particular program? What challenges do they anticipate facing in their pursuit of higher education? Do they have aspirations beyond noncredit workforce programs? Noncredit programs and credentials can offer a feasible entry point into a career pathway, but some observers assert that they can also be a diversion from the pursuit of a degree (Education Strategy Group & Association of Community College Trustees, 2019).

There is considerable research on college and career decision-making, but the prevalent "college choice" models have been critiqued as being applicable only to the one-time decision-making processes of privileged students graduating from high school (Iloh, 2019). Few studies have focused on adult students in general or on community college students in particular. One such study reports a range of reasons that students chose to enroll in a community college, including being motivated by negative messaging from teachers that they would not succeed in college, and setbacks in life such as losing a job or previously dropping out of college (Somers et al., 2006). Enrollment and re-enrollment may be a continual decision-making exercise for older learners (Parsons et al., 2023).

Community colleges tend to offer a large number and wide variety of program and course options, but many incoming students do not receive advising on how to choose a program that best fits their interests; instead,

colleges focus on sharing policies and procedures (Lahr et al., 2025). Advising and support services are typically optional. The guided pathways movement of the last decade has aimed to organize program offerings and program information and to redesign student orientation and advising in ways that better help students explore and understand their options (Jenkins et al., 2021; Jenkins et al., 2020). Related research is attempting to understand community college students' decision-making on majors and careers. In a large-scale survey, students reported weighing a range of influences on their career considerations, citing the labor market and earnings prospects as the most influential and family and friends less so (Lahr et al., 2025). Importantly, one-third reported receiving only some, little, or no support from college staff regarding their program choices. While labor market and earnings prospects are important, interviews with students about their decision-making in IT programs revealed that students' expectations can be unrealistic and adjust over time as they learn more about the industry as part of their programs (Peterson et al., 2023).

Other studies have examined the information sources used in decision-making. A study of IT students at one large community college finds that the students generally relied on three sources to decide on a college program and career: personal networks (e.g., family, friends, coworkers), online resources (e.g., websites, social media), and institutional resources (e.g., college advisors, instructors) (Scovill et al., 2023). Other researchers emphasize the importance of "trusted networks" to adult learners' enrollment decisions (Hatcher et al., 2025). However, one study finds that students who relied on their college as opposed to their family for college and career information were more likely to have higher alignment between their college program and their stated career goals (D'Amico et al., 2012).

Without transparent and accurate information, students may have expectations of their programs that are not met. As noted, the study by Dadgar et al. (2024) finds misalignment between students' and colleges' goals for certificate programs; those who completed certificates in manufacturing strongly expected that the credential would lead to a quality job, while college personnel viewed their programs as a first exploratory step. Those whose subsequent employment did not yield the wages and working conditions they anticipated expressed disillusionment with their college and skepticism about ever pursuing additional education.

A new model of college decision-making takes into account various dimensions that influence an individual's college decisions and are applicable at all stages of life—information, time, and opportunity (Iloh, 2019). Do individuals have access to the important and essential information needed to make a decision? With regard to timing, are there specific events that catalyze enrollment, and/or gradual life changes over time that influence enrollment decisions? Societal events such as the mass availability of online learning may also play a role. Finally, do individuals perceive an opportunity to be successful in higher education? Does it seem newly feasible? Using this framework to analyze decision-making can help to reveal the inequities among different groups and individuals in terms of information received, timing, and opportunity.

The noncredit workforce education sphere is unique in higher education in how tightly linked college enrollment decisions and career decisions are, since entry into a noncredit program is usually an expression of a career choice (Van Noy, 2021). Thus, personal goals regarding employment, rather than a more general desire for continued education, may drive enrollment or re-enrollment. Another study found that adult

college students reported both economic and noneconomic motivations (Shimano & Klein-Collins, 2024). When individuals are enrolling to improve their economic status, transparent information on programs and credentials, and where they will lead, is critical. This is particularly important given the wide variation across programs in terms of how they are designed and their intended outcomes (Van Noy et al., 2023). Whether students are choosing the programs that will best propel them forward is an important research question.

Methods

This qualitative study employs semi-structured phenomenological interviews to explore the experiences of students enrolled in noncredit workforce programs at three community colleges: LaGuardia Community College (LaGuardia) in New York, Mt. San Antonio College (Mt. SAC) in California, and Northern Virginia Community College (NOVA) in Virginia. We seek to understand how students make meaning of their education journeys and enrollment decisions (Seidman, 2006). We focus specifically on students without prior degrees. Ninety-five interviews were conducted between June 2024 and July 2025; 12 interviews were excluded from the analytic sample due to participants having prior degrees (n = 10), language barriers (n = 1), or enrollment in ESL only (n = 1). The final sample was 83 participants: 20 from LaGuardia, 30 from Mt. SAC, and 33 from NOVA. These colleges were chosen for the study as we had conducted research with them previously and had developed a broad understanding of their noncredit programming as well as relationships with their leaders and staff.

Recruitment proved challenging and required significant iteration. Initial email recruitment yielded limited responses and high no-show rates. In late January 2025, the team added in-person class visits, shifted to direct communication via students' preferred contact methods (email or text), began conducting phone interviews in addition to Zoom, and increased incentives from $25 to $50. These changes significantly improved recruitment effectiveness, yielding 57 interviews in three months compared to 28 in the preceding seven months.

Virtual interviews lasted 45–60 minutes and were conducted via Zoom or telephone. The semi-structured interview protocol, developed based on prior research and piloted with students, covered participants' education and employment histories, reasons for enrolling in noncredit programs, decision-making processes and information sources, program experiences, and career goals. Interviews were transcribed and uploaded into NVivo for coding by research team members. Two rounds of coding were completed: First, the team developed an initial codebook based on prior projects and early interviews, which was refined after piloting; second, inductive coding identified key considerations for student enrollment in noncredit programs (Saldaña, 2021). Student attributes including age cohort, gender, race, ethnicity, institution, program field, Vocational ESL (VESL) status, program cost, prior college enrollment, prior noncredit credentials, simultaneous enrollment, and employment status were specified and loaded into NVivo. Cross tabulations identified patterns across sites and student populations. For more details on the study methods, see Appendix A.

Study Context

To ground our study's findings, we first briefly describe the institutions. LaGuardia, Mt. SAC, and NOVA are located in relatively large metropolitan areas, so our study does not shed light on students in noncredit occupational programs in rural areas. We also describe the state noncredit funding landscape where they operate. Then, we provide interviewee program participation information by institution as well as a field-level breakdown of programs.

Institutional Profiles

LaGuardia

Located in Long Island City, New York, LaGuardia is an institution of the City University of New York (CUNY) offering more than 50 majors, certificates, and programs, and over 60 continuing education programs. LaGuardia enrolls more than 25,000 students, with nearly 11,400 enrolled in noncredit education. The Continuing Education Department offers career skills and workforce training, English language learning, pre-college and high school equivalency, and small business and entrepreneur services. LaGuardia is a Hispanic-Serving Institution (HSI) and Asian American and Native American Pacific Islander Serving Institution (AANAPISI), and it is part of the Minority Science and Engineering Improvement Program.

Mt. SAC

Located in Walnut, California, Mt. SAC is the largest single-campus college in the California Community Colleges system, serving almost 75,000 students annually. Half are enrolled in Mt. SAC's more than 250 credit degree and certificate programs, and half in the approximately 115 noncredit certificate programs housed in the School of Continuing Education (SCE). Noncredit programs provided through SCE include short-term vocational (STV) courses, ESL, and adult basic education, among other noncredit offerings. Mt. SAC is an HSI and AANAPISI.

NOVA

Northern Virginia Community College (NOVA) is one of 23 colleges within the Virginia Community College System and one of the largest community colleges in the United States. NOVA serves more than 73,000 students across six Northern Virginia campuses, comprising 29,381 students via NOVA Online, more than 18,000 students through HS Dual Enrollment, and over 4,000 students in continuing education. NOVA offers 65 two-year degree programs, eight certificate programs, and over 50 career studies certificate programs. NOVA Workforce provides continuing education and professional development courses and programs on a rolling basis, with new classes added frequently. NOVA is a Minority Serving Institution, an HSI, and an AANAPISI.

State Noncredit Funding Landscape

The three states' policy contexts with regard to the funding of noncredit education show significant variation with important implications for programs and students in each location.

By law, California provides funding for noncredit courses and programs categorized as eligible under the state's Career Development and College Preparation (CDCP) program: ESL, Elementary and Secondary Basic Skills, STV Training, and Workforce Preparation. Mt. SAC offers programs that blend these categories, such as VESL, which is designed for general career preparation, and English for Special Uses (ESU) courses for specific occupations (e.g., medical terminology). Most of our Mt. SAC interviewees were in STV programs; a few were in VESL and ESU.

When CDCP programs consist of two or more courses that lead to a college certificate of completion or certificate of competency, they are eligible for funding higher than that of credit courses. Such programs are tuition-free for students. Students in noncredit courses are also exempt from enrollment and other fees that are charged to credit students, so they cannot access some free or fee-based college services, such as health centers. However, the state funding does help provide student support staff; at Mt. SAC, for example, there are dedicated staff for STV students, including program coordinators, counselors, and career services professionals.

In Virginia, the New Economy Workforce Credential Grant program was launched in 2017 to fund noncredit workforce training that leads to a credential in a high-demand field. The program was implemented as FastForward. Eligible programs align with the high-demand fields set by the Virginia Board of Workforce Development. The program has a pay-for-performance model: students pay one-third of the tuition upon registration and another one third if they do not complete the course or program; the state reimburses the college for one-third when the student completes the course and another third when the student passes the certification examination. Thus, Virginia's funding is meant to strongly incentivize programs that yield industry-recognized credentials leading to immediate employment.

For lower-income students, Virginia's Get a Skill, Get a Job, Get Ahead (G3) scholarships provide additional tuition support for those at or below 400% of the federal poverty level, and Financial Assistance for Noncredit Training leading to Industry Credentials (FANTIC) also funds students who are at or below 400% of the federal poverty level. The majority of our NOVA interviewees paid nothing for their programs; most were enrolled in FastForward programs, and many were eligible for additional financial aid through G3 and/or FANTIC.

In contrast to California and Virginia, New York State does not provide steady funding for noncredit workforce courses or programs. In the CUNY system, of which LaGuardia is a part, Adult and Continuing Education divisions are expected to be self-funding. Thus, LaGuardia must rely on a variety of funding sources, including tuition from students, grants, and philanthropic donations, to sustain its workforce training programs and to support student scholarships. For example, the NYC Accelerated Workforce Recovery HUB,

funded by the New York Community Trust, offers full and partial scholarships to students with financial need. Thus, unlike at Mt. SAC and NOVA, the majority of the LaGuardia students we interviewed paid full tuition for their programs; only three paid nothing, and four paid for some of the cost.

Program Participation by Institution

In this section, we provide a brief glimpse of the programs in which interviewees were enrolled. See Tables A–C in Appendix B for descriptions of these programs, including their intended outcomes.

LaGuardia

All programs at LaGuardia are offered through the Department of Continuing Education, Career & Skills Workforce Training.

At LaGuardia, study participants were predominantly enrolled in healthcare programs. These programs focused on developing technical skills, preparing for exams, and obtaining certifications required for employment. They included:

- ➢ Certified Clinical Medical Assistant (CCMA)
- ➢ Central Service Technician
- ➢ Community Health Worker
- ➢ Emergency Medical Technician
- ➢ Paramedic
- ➢ Pharmacy Technician

Study participants at LaGuardia also enrolled in trades programs, which ranged from 3–12 months in length. These programs included:

- ➢ Electrical 1
- ➢ Plumbing 1
- ➢ Refrigeration Machine Operator License Preparation

Mt. SAC

All programs at Mt. SAC were offered through the School of Continuing Education, Short-Term Vocational and Vocational ESL. Study participants at Mt. SAC were enrolled in a range of STV programs, including healthcare, business, IT, and trades. These programs range from a few weeks to approximately five months in length.

Study participants were primarily enrolled in healthcare programs. These programs focused on foundational clinical skills and administrative skills, immediate job readiness, and preparation for required certification and licensure exams. They included:

➤ Emergency Medical Technician
➤ Medical Assistant
➤ Pharmacy Technician

Participants were also enrolled in business-related programs, which emphasized core business and finance principles.

These included:

➤ Accounting
➤ Ownership Clerk
➤ Payroll and Tax Accounting
➤ Small Business Management
➤ Behavioral Technician

Additional STV enrollments included:

➤ Electronics Systems Technology
➤ Floral Design
➤ Registered

Notably, some students were also enrolled in Adult Basic Education and ESL programs, including Adult High School Diploma, GED/HiSET, English classes, and VESL Career Paths.

NOVA

All programs at NOVA were offered through NOVA Workforce. Study participants at NOVA were primarily enrolled in noncredit workforce courses focused on skill development and preparation for industry-recognized certifications in healthcare, IT, trades, and professional fields. Programs were short-term, ranging from one day to three semesters. Table C in Appendix B provides descriptions of the programs study participants were enrolled in at NOVA.

In the healthcare field, participants were enrolled in:

➤ Certified Billing & Coding Specialist
➤ CCMA
➤ Nurse Aide
➤ Dental Radiation Safety
➤ Licensed Practical Nurse (LPN)
➤ Phlebotomy Technician

Other program enrollments included:

➤ CompTIA certification prep
➤ IT Specialist
➤ Commercial Driver's License Class A Training
➤ EPA Section 608 Technician
➤ SHRM Certification Exam Preparation

Program Field Distribution by Institution

At the time of our interviews, participants were either currently enrolled in or had recently completed noncredit workforce programs. Healthcare was the prominent program field across institutions (61%); however, the range of programs in which participants were enrolled varied by institution.

- ➤ At LaGuardia, interviewees were highly concentrated in the healthcare field (80%), with the remaining interviewees enrolled in trades programs.
- ➤ At Mt. SAC, 50% of interviewees were enrolled in a healthcare program, 20% in a business program, 7% in IT, and 23% in a field classified as "Other."
- ➤ NOVA had the largest variety of program fields represented, including healthcare (61%), IT (15%), business (6%), human resources (6%), trades (3%), and other fields (9%).

A detailed breakdown of our sample's fields of study by institution, including information on additional ESU/VESL enrollments at Mt. SAC, is located in Appendix C.

Findings

Diverse Student Populations with Complex Backgrounds

Our study sample included a diverse student population. Interviewees ranged in age from 18 to 60, with the majority between the ages of 25 and 49, and a third being 24 years old or younger. Thus, while our sample includes some traditional-aged students, the majority would be defined as adult students. Overall, most interviewees were female. Among those interviewees who reported race, only one in 10 reported they identified as White: The rest identified as Black, Asian, or Other. Additionally, four in 10 interviewees identified as Hispanic/Latino. As shown in Table 1, demographic differences exist between institutions.

Table 1: Demographic Characteristics of Participants by Institution

Characteristic	Institution						Total	
	LAG (*n*=20)		MS (n=30)		NOVA (n=33)			
	n	%	*n*	%	*n*	%	*n*	%
Age Cohort								
0-24	6	30	12	40	10	30	28	34
25-49	13	65	14	47	18	55	45	54
50+	1	5	2	7	3	9	6	7
Unknown	0	0	2	7	2	6	4	5
Gender								
Female	9	45	22	73	23	70	54	65
Male	11	55	8	27	10	30	29	35
Race								
White	0	0	3	10	5	15	8	10
Black	7	35	3	10	6	18	16	19
Asian	1	5	9	30	4	12	14	17
Other	2	10	1	3	5	15	8	10
Unknown	10	50	14	47	13	39	37	45
Ethnicity								
Hispanic	8	40	16	53	10	30	34	41
Not Hispanic	7	35	12	40	17	52	36	43
Unknown	5	25	2	7	6	18	13	16

Note. N=83

While we did not ask directly about current income or assets, various questions elicited information about the interviewees' financial circumstances, such as current and recent employment and whether any costs associated with their programs or continued education posed financial hardship. Some interviewees, such as younger students living at home with parents and those with employed spouses, seemed financially stable. Others, however, shared that they held low-wage jobs and were financially insecure.

In addition to demographic diversity, patterns in education background emerged. While we purposefully sampled for students who had not attained a degree, most of the interviewees reported that they had been previously enrolled in college, and of those, the majority had been enrolled in credit-bearing courses. A smaller percentage of interviewees reported obtaining prior noncredit credentials or simultaneously enrolling in both credit and noncredit education.

With regard to their earlier education, many described negative associations with schooling based on past experiences in high school. Some discussed significant life events that affected their ability to complete their high school diploma. We asked our interviewees "What was school like for you growing up?" A 41-year-old mother enrolled in the medical billing and coding specialist course at NOVA reflected on early diagnoses and family responsibilities that shaped her education trajectory:

> I didn't like it because school was very distracting to me. I was diagnosed with ADHD in second or third grade. I just sat in class and didn't participate. Middle school was the same thing. And high school, I dropped out when I was in tenth grade because I was pregnant. I went to Job Corps to get my GED after my son was born. Then I was just working from there on. I wish I had taken advantage of it [school]. Looking back, [I wish I would have] experienced it a different way and did it to my potential.

In addition, a subset of our interviewees were foreign-born students. They often described prior education experiences abroad and expressed intention, or perceived necessity, to pursue further education in the United States. For example, one interviewee at Mt. SAC was a 21-year-old female who moved to the United States from China in the year before enrolling. While in China, she was in medical school. At Mt. SAC, she was enrolled in a noncredit VESL program that focused on English speaking and writing, office management, and career planning, yet she aspired to transfer to a university to pursue nursing.

These data and examples illustrate the diversity of students enrolled in noncredit workforce programs and their varied life circumstances. The interviewees revealed that their education choices were deeply influenced by their personal characteristics, backgrounds, circumstances, and experiences. The next sections describe their college experiences and plans in more detail, and the factors and information that drove their enrollment in noncredit workforce programs.

Nonlinear and Interrupted College Pathways

As noted, the majority (71 percent) of our sample—and the majority of the interviewees at each of the three colleges—had prior college experience. Table 2 shows that almost two-thirds of those prior enrollees had been enrolled in credit courses only. Smaller numbers had been previously enrolled in noncredit courses or in both credit and noncredit courses. Though not shown in this table, it is worth noting that one-quarter of our interviewees were simultaneously enrolled in other noncredit or credit courses while enrolled in the noncredit course of interest to this study.

Table 2: Participants' Prior College Enrollment by Type

Enrollment Type	n	%
Credit	38	64
Noncredit	7	12
Both	9	15
Unknown	5	8

Note. *N*=59

Movement among multiple institutions has been described as student "swirling" and has focused on degree-seeking students who move back and forth between two-year and four-year colleges versus those who transfer directly from the former to the latter (e.g., de los Santos, Wright 1990; Goldrick-Rab, 2006; Higher Ed Careers, 2015; Selingo, 2015). Swirlers may also include students enrolled in multiple institutions simultaneously; that is, students who are "stitching together a degree with credits from multiple institutions" (Higher Ed Careers, 2015). Students who enroll in multiple institutions may do so continuously versus discontinuously; the latter have been described as having "interrupted movement" (Goldrick-Rab, 2006). Not surprisingly, students of lower socioeconomic backgrounds and with weaker high school preparation have been found to be more likely to have interrupted college pathways (Goldrick-Rab, 2006).

These concepts have focused on students pursuing credit programs and degrees. Our study is the first to tell the stories of students who have moved in and out of credit and noncredit programs—some for decades or more—whose experiences reveal various interrupted and nonlinear enrollment patterns. As they enroll and re-enroll, we found some who are attaining multiple, sometimes unrelated, noncredit certifications. And, as we show in the next section, while some are alternating between credit and noncredit courses, others are simultaneously enrolled in both.

Those who had enrolled in college earlier, often right out of high school, shared various reasons for not completing a degree. A few interviewees said the COVID-19 pandemic derailed their college journey, such as this 32-year-old Hispanic male completing the community health worker program at LaGuardia:

> When COVID hit, that kind of screwed me up, just because, again, I have to be in class to learn. I cannot be nowhere else, because I easily get distracted, like my mind goes somewhere else. And I start fidgeting, or, you know, just doing something that I shouldn't be doing instead of paying attention.

Others cited their lack of motivation or maturity, such as one student who matriculated to a university right after high school but became involved with drugs and alcohol, describing the focus of her studies as "Partying 101." The LaGuardia community health worker student described his own lack of follow-through, in addition to the pandemic, as reasons for not completing any credential in the past:

All the colleges that I've been to, and I've been to about three—BMCC, Schenectady, and LaGuardia—have been good. Can't complain. It's just, I guess, the only thing that I would say that has been a negative part or

aspect of that was me, because I tend to start things and then give up halfway. And that's how I kind of see BMCC and Schenectady, because I started those and then, you know, I was doing good, and then halfway, you know, I kind of fell off.

Common reasons for prior unsuccessful college attempts:

➢ Dislike of online learning that arose during COVID

➢ Lack of motivation or maturity

➢ Lack of academic preparation or interest in academic courses

➢ Financial need

➢ Personal and "life" issues

A 27-year-old male enrolled in the NOVA Certified Nursing Assistant (CNA) course discussed long-standing academic disengagement and personal challenges but also highlighted a later shift in academic performance:

[School was] kind of all over the place. I was never very motivated, so I wouldn't do a lot of schoolwork. I wouldn't turn in homework and assignments and/or I'd scramble at the last minute. I think in high school, freshman year, I got mostly all A's and B's. Then, sophomore year, I started getting a C here and there. Junior and senior year I was dealing with a lot more tumultuous personal stuff … so I wasn't a great student by any means. I tried enrolling in community college a couple times, both here and out in California when I lived there. I never had a lot of success. I dropped out like four or five times by the end of it. But at this point, I've been fine. I have a 4.0 GPA. I think I look about as good on paper as anyone could that's applying to UVA [University of Virginia]. So, sometimes it just takes time to get your shit together.

Others found their first college classes to be challenging, or not what they were interested in. A few students remarked that they left college because of the requirements of degree programs, saying that general education courses were "boring" and something they did not care about. One participant said:

I was going for computer science, and I got stuck on some of those English classes in the beginning. I'm like, 'I am not an English person. I am a computer person,' you know, but you got to take some of these prerequisites to do other stuff. And I just gave up.

Financial hardship was a frequent reason for stopping out of college. A young woman in a LaGuardia healthcare program shared that her ultimate goal was to become a nurse, but having to support herself meant that she was in and out of college.

I do have some credits toward nursing already, but I couldn't continue doing it because I didn't have a steady job. Took it at two different community colleges. First Staten Island, when I first started college, freshman year. Then I transferred to City Tech. I took the classes, but then I had to drop out. I had to switch jobs … With life and rent, I was in and out of jobs, sometimes I lost jobs, which made me drop out of school entirely to focus on getting a job and paying rent.

She was taking the noncredit Central Service Technician program with the hope that it would provide a stable job and income so that she could return to her pre-nursing courses. She was paying full tuition for the program on a payment plan. In addition, some interviewees cited personal problems, "going through life," and having and raising children as reasons for previously abandoning their college pursuits.

A few interviewees were accumulating multiple noncredit certifications over time. The certifications were in the same general occupational area for the most part: For example, some interviewees had taken several consecutive IT courses in cybersecurity or cloud. A handful of these interviewees had last attended college decades ago and found themselves unemployed later in life; these students were hopeful that such certifications would help them in the job market.

Others were enrolled for a second or third certification in a related field with optimism that by learning more, they would earn more. A woman in the LaGuardia Pharmacy Technician program had previously completed the Central Processing Technician program but said it did not provide the pay she had expected. She told her story:

> Okay, so I have my CNA license, my EKG license, my phlebotomy license, my food handling license, and this license here as a central sterile technician, and then I'm going for my pharmacy tech. So, if I really would have just looked at it and figured out what I wanted to do, I— that's about six years of school, and I could have been a doctor already. Could have been a pharmacist ... But in the long run, I'm not mad at it, because ... I have so much job experience and work experience and life experience and just experience in general, working in the hospital, that when new things come up, it's not as hard. So I don't want to say like, my pathway was like, straight from high school to college—I had to do a little extra stuff to get there—but it still will get there, because at the end of the day, everything that I've done, if I step into a classroom for college to take on courses or anything of the sort, anything of credit, I know I'm going to be fine.

A 35-year-old female NOVA student had a similarly long education trajectory, all at NOVA:

> Well, when I first enrolled in college, the first time right out of high school ... it was still, everybody was still caught up in the fact that you need a degree in order to make any amount of money. The second time was I changed my degree plan to just a general, what do they call it, a liberal arts degree? The third time was phlebotomy, and then the fourth time was the CCMA.

This interviewee was living with her mother and caring for her and had little previous employment experience; she expressed that her goal was to get a job.

What do we glean from these data? We have many examples of individuals who enrolled in college soon after high school but who were not successful there. Some expressed regret over their early experiences, saying that they had wasted money and felt sorry they kept dropping out—"I made an expensive mistake,"

said one participant. For many, it has taken some time to identify, enroll in, and complete a noncredit program and credential. Some made multiple unsuccessful attempts and were in and out of various colleges.

In many of these cases, the previous education experiences and current credentials are unrelated. Individuals may not know what type of career they are interested in until they have tried different education programs and occupations. Some said they returned to higher education after long job histories in retail, food service, and warehouses that were not rewarding or fulfilling. It may also be that they lacked knowledge about and are uncertain of the best route to their ultimate goal. However, these short-term and free or low-cost noncredit programs presented our interviewees with opportunities that seemed newly feasible and, in some cases, also offered a chance to participate in programs that interested them regardless of any strong alignment with an intended education or career outcome.

Enrollment Considerations: Why Now?

Interviewees reflected on their reasons for enrolling in their programs at this time. Although intended education trajectories varied, most enrolled in their noncredit program to either assist in obtaining a job immediately or to begin a longer education pathway. The interviews examined what elements made enrollment or re-enrollment in higher education feasible *now*; these included affordability, schedule, and convenience. In addition, various information sources and personal connections influenced interviewees' decision-making.

Education Trajectories
Interviewees primarily discussed two intended outcomes from enrollment in their noncredit program: Some enrolled in their programs seeking a short-term credential with no plans for further education, while others enrolled as an intentional step along a longer education pathway.

Interviewees with no plans for further education beyond their noncredit program most commonly discussed their need to quickly acquire a new skill or job to obtain increased wages, benefits, and/or stability. They emphasized that the noncredit program should help them secure a better job, re-enter the workforce (e.g., parents re-entering the workforce or veterans transitioning to civilian labor), or obtain immediate employment.

For some, this need was urgent. For example, a 55-year-old unemployed male participant was taking a succession of IT certification courses at NOVA to try to find a new job. He had gone to a university in his 20s but didn't complete a degree, then served in the military. After leaving the military, he worked in finance—mortgages and car loans—but he was no longer licensed to do so. At NOVA, he was participating in the re-entry program and had a case worker. He discussed why he chose NOVA with the interviewer.

Participant: Through the programs that I found online. They have that workforce and the G3 scholarship to pay for it.

Interviewer: It sounds like your plan is to see how you do on the job market and then reassess. Is that correct?

Participant: Yes. Eventually, I need to make money. That's the bottom line. This is only a tool for that. If that isn't the case, then it's worthless to me. It's a waste of effort and time, but not a big deal.

Others shared how their low income hindered their ability to afford higher education but noted that it also presented opportunities for them to enroll in their noncredit program at low or no cost through public funding and scholarships. For example, a participant who was working as a bartender and enrolled in the CCMA program at NOVA described her decision to enroll this way:

> *I got information—I just kinda went to the NOVA website, and I'd seen something about their FastForward program. So, then I started trying to apply to classes that were in that FastForward program because, you know, I'm low-income, I couldn't actually afford to go to school, but I just needed something to get out of what I was doing.*

Each interviewee was asked, "Why did you decide to enroll at this time?" In his response to this question, a 55-year-old White male enrolled in the CDL program at NOVA discussed his excitement to pursue the CDL certification, which provided the opportunity for financial stability. He had been thinking about the CDL for years, but the cost ultimately held him back. His parents had not attended college and never supported him in pursuing postsecondary education. He began working immediately after graduating from high school and worked in the food industry, car sales, and security.

Participant: I am incredibly grateful that I got this grant, and I was able to go and get the CDL-A because it's going to change the landscape for me financially. I'm very, very thankful for how this has played out … It's going to change things, and it's going to bring up my income, probably around $50,000 … maybe $60,000 a year.

Interviewer: And do you have any other educational goals right now?

Participant: No, I do not. I do not have any other educational goal.

Interviewer: So, you said you've been interested in trucking since 2009. Have your goals changed over time, or was this just always the thing that was in the back of your mind?

Participant: I don't think my goals ever changed … I think I was presented now with a way where I didn't have to pay out of pocket or get reimbursed, or anything like that … I think that's what happened. You know, this grant that was offered through the state of Virginia really opened up a way for me to be able to do that, you know.

Thus, for some, enrollment in noncredit programs reflected a desire to transition into a different, better-paying industry. It was also an opportunity they felt they couldn't pass up.

Responding to the question of why she enrolled at this particular time, a 29-year-old Asian woman in Mt. SAC's vocational business program described how the loss of employment presented her with an opportunity to learn new skills and potentially embark on a new career path.

> *Participant: So, I got laid off from my last job, and I took that opportunity to improve myself, you know, to learn new things. So, I decided to go back to school and take some classes.*
>
> *Interviewer: And why these classes in particular?*
>
> *Participant: I took the business management class because I want to have my own business in the future, and I wanted to learn how to manage it. I also wanted to learn the financial process, which includes accounting, payroll, how to do my own books, and QuickBooks.*

In contrast, other interviewees discussed enrollment in their noncredit program as one step along a longer intended education pathway. Some had very specific plans for obtaining a bachelor's or advanced degree and discussed how their noncredit coursework would help them gain the clinical hours and/or prerequisite experience required for their intended degree programs. As noted, one-quarter of the interviewees were simultaneously enrolled in their noncredit program and some other course or program. Seven of these were in noncredit EMT programs and were concurrently taking credit courses in related programs such as Criminal Justice, Healthcare Administration, Kinesiology, and Fire Science. At Mt. SAC, the EMT certification is a prerequisite to apply to the Fire Academy. These students all had relatively concrete plans, with some planning to work as EMTs while they take prerequisites for nursing or physician programs. Those hoping to be accepted into the Fire Academy said that if that did not work out, they would continue their education to become paramedics.

A 24-year-old Black female participant expressed interest in further education beyond her noncredit EMT program at LaGuardia.

> *I currently work in the home as a home health aide. EMT was just a stepping stone for me to become either a nurse or a respiratory therapist. So, that's where I'm heading, and it's gonna be great. It's gonna look great on my resume.*

Similarly, six students in healthcare programs (Phlebotomy, CNA, and CCMA) were taking noncredit courses related to the longer education pathway that would prepare them for their desired occupations, such as physician and nurse. Two were simultaneously enrolled in universities while completing medical assistant programs at NOVA. One 29-year-old male participant discussed how he used the CCMA program at NOVA to explore and confirm his interest in the medical field as well as to gain clinical experience prior to applying to medical school.

> *Well, right now I'm studying on [the] pre-med track, hopefully to go to medical school in a few years. So, I wanted some clinical experience, and the CCMA program stood out to me just because of the amount of hands-on patient interaction that you get from that role … Yeah,[I was] just looking for anything to gain clinical experience and also to see if medicine is right for me.*

Others had more ambiguous goals for further education. They expressed interest in pursuing a career that required a degree but did not necessarily articulate how their current noncredit program would help them achieve that goal. A 37-year-old Black male participant at LaGuardia said he chose to pursue the Pharmacy Technician program as an entry point into the healthcare field, with the longer-term consideration of becoming a nurse.

> *So, I've always had nursing in the back of my mind at some point. So that's why I took on the pharmacy tech, because I'm like, 'Okay, it's like a gateway into healthcare, because I have never done anything in regards to healthcare.' I'm taking this course now, and I'm loving it, you know, like, the teacher is amazing. It's a lot of information to take in, but it's the challenge that I needed at this moment. I see there's a lot of career pathways in regards to pharmacy tech, and I already have my game plan.*

Overall, our research revealed that interviewees enrolled in their noncredit programs in pursuit of different outcomes. Many sought to quickly acquire new skills or secure a job that would increase their wages, benefits, and overall stability. Others considered furthering their education beyond noncredit courses, sometimes abstractly and sometimes through specific plans.

Program Feasibility

Interviewees emphasized feasibility as the key consideration in their decision to enroll in their respective noncredit programs. Feasibility starts with affordability, and the availability of free or very low-cost postsecondary education was a primary motivator for enrollment among our participants, as has been found in other studies (Somers et al., 2006).

The majority of interviewees reported paying no tuition for their programs. Interviewees' out-of-pocket costs for program participation varied by institution and program field because available funding for noncredit programs varies across the states in which the colleges are located, as discussed in a previous section. For interviewees at Mt. SAC and NOVA, free programs were key in their decision to enroll. For example, a 37-year-old Hispanic female who worked as a special education instructional aide was interested in the Registered Behavior Technician (RBT) program at Mt. SAC because she wanted to learn how to work better with her Applied Behavior Analysis and RBT colleagues as well as to understand the programming that was used with their students. When asked about her decision to enroll, she emphasized her busy schedule but stated,

> *Well, I'm going to do it because it's free education, and you can't go wrong with a free education.*

The participant who had been working as a bartender prior to enrolling in the CCMA program at NOVA discussed the role that the FastForward program played in her decision to enroll:

> Interviewer: Do you receive any support or resources from the college?
>
> Participant: That's what the FastForward program was. They ... funded it for me. I didn't pay anything for that class.
>
> Interviewer: And was that a factor in your decision to enroll?
>
> Participant: Yes, one hundred percent. I would have wanted to enroll but I wouldn't have been financially able to enroll.

Some interviewees (especially those participating in healthcare programs) reported their tuition being fully covered but having to pay for required course materials, including textbooks/online e-books and equipment. When asked if he received financial support from the institution, a Hispanic male enrolled in the EMT program at Mt. SAC stated:

> I believe here at Mt. SAC, because the EMT program is on their noncredit side of school, you don't actually have to pay for the tuition ... But we would purchase all of our extra supplies, like our uniforms and other supplies, like our stethoscopes, blood pressure cuffs, just anything like that. So, it's been pretty cool. I thought that was a really cool thing when I was finding out about the program.

In some cases, interviewees reported that the availability of free programs led them to enroll in options they had not initially planned to pursue. For example, a Hispanic male enrolled in the CDL program at NOVA stated:

> I was actually looking at computer coding [courses] to become a coder. So, I looked at a mini boot camp ... I looked at online security. I'm very tech savvy. I was looking for something in that kind of field, but then I just came across the CDL. I know a few people that have a CDL, and they make pretty good money for that. Then I saw that it could be free, which that kind of sealed the deal.

In contrast, the majority of students at LaGuardia reported paying for the entirety of their program. Only about one-third received any assistance, with 20% reporting they paid some of the cost and only 15% reporting they paid nothing. Still, interviewees at LaGuardia overwhelmingly discussed the cost of its program offerings as significantly less expensive compared to other institutions in the surrounding area, most commonly identifying LaGuardia as within their budget or the most affordable option.

For example, one participant at LaGuardia, a 22-year-old Hispanic female, was simultaneously enrolled in a four-year CUNY institution as a pre-physician assistant major and in the EMT program. She was interested in enrolling in an EMT program to obtain the necessary patient care hours required for acceptance into the Physician Assistant program. She reported paying the full cost of the program. When asked how she came to enroll in the program, she stated, "I ... looked at all the programs in the city and [LaGuardia] was kind of the cheapest option."

Interviewees also identified course modality and schedule, start date, program length, and location as important considerations in their enrollment decisions. Interviewees varied in their preferences for online versus in-class learning. Some preferred online courses for their convenience, while others felt they could concentrate better, without distraction, while learning in a physical classroom. Given competing priorities such as employment and family responsibilities, interviewees prioritized a program schedule that best fit their lifestyles. When asked why she chose LaGuardia, a 51-year-old female student responded:

> Well, I chose LaGuardia because of the schedule. They had a Saturday program that pretty much fit into my work schedule, where I had Saturdays available to be able to do the program. So that's mainly why I chose LaGuardia.

Similarly, a 36-year-old Hispanic male enrolled in LaGuardia's CCMA program explained that the college was a good fit for him because of the program scheduling:

> It was just convenient. I worked during the morning time, from 6 a.m. to 2 p.m., and having the courses from 6 p.m. to 10 p.m. just worked for my schedule. It was super accommodating, go three times a week and some Sundays as well. Honestly, I don't think it could have been any easier for me to do, as far as trying to work out my personal schedule with the school schedule. It was just super accommodating.

Furthermore, interviewees identified the institution's location as a consideration for enrollment, frequently mentioning convenience and proximity to their residence. Many interviewees also discussed choosing a program that began the soonest, with some enrolling in options that were different from their original interests to start sooner. Finally, program duration also mattered, with interviewees drawn to these programs for their short duration. One participant discussed how program duration, in addition to cost, influenced her decision to enroll at Mt. SAC:

> We just started, but it's going to be over October 31st ... That's what I liked about it because it's not so long. It's an accomplished goal without having to be too worried about my time. Because a lot of us who go there, we're kind of stretched thin on time. So, it's good, the way they set it up. The hours are good.

Given the low-income status of many of our interviewees, it is unsurprising that program affordability played a major role in their noncredit program enrollment; in concert with various life obligations, other aspects of feasibility also emerged as major factors in their enrollment decisions. Interviewees revealed that the decision to enroll in their noncredit program involved various considerations, including intended outcomes,

Key Enrollment Considerations

Feasibility
➤ Free or low-cost
➤ Convenient course schedule and college proximity
➤ Immediate course start dates
➤ Short duration

affordability and other feasibility aspects, as well as information sources and personal relationships that helped them navigate and commit to enrolling in their programs.

Information Sources & Influences

As noted in the discussion of prior research, the information sources people use when making decisions about college enrollment and a career path generally fall into three categories: personal, online, and institutional (Scovill et al., 2023). We recognize these categories among our sample of interviewees and make some additions.

With regard to personal sources who influenced their decision-making, our interviewees mentioned family, friends, and coworkers. Similar to what other research has found, family and friends provided general encouragement (Somers et al., 2006). We found it was more common for family and friends to be encouraging, or to recommend a particular college based on its perceived reputation, than to provide specifics or counseling on a program or career path. For example, one of our interviewees was a 40-year-old woman enrolled in the medical assistant program at Mt. SAC. She was married and the mother of a toddler and a teenager, and she had never enrolled in college before. Although she had previously worked as a medical assistant, she held no credentials, and she was learning that if she wanted to re-enter the workforce, she needed the certification.

> Interviewer: Did you ever consider enrolling in college before now?
>
> Participant: I always wanted to do it, but I was always too scared to do it.
>
> Interviewer: And what scared you?
>
> Participant: One is wasting money. Two, not passing and wasting time as well... My sister is the one that was like, 'Just suffer for like, six months, and then in the end, you'll sacrifice, but you'll, you know, you end up winning in the end.' So she motivated me to go back to school.

In addition, her niece held a job at Mt. SAC and shared with her that the college's medical assistant program is free. Thus, family encouragement and the fact that the program was free nudged her into enrolling.

Other interviewees cited relatives who worked in their general field of interest—a cousin in IT, a sister who was a nurse, a cousin who was a pharmacist. Yet, our interviewees weren't typically acquiring specific or detailed information about pathways to success in these careers or the programs from these family members. Rather, they tended to rely on online sources and the colleges' websites for such information. Online sources such as Google were frequently mentioned. For example:

> I just Googled the best paramedic programs within New York, and then kind of filtered it down to Queens where I reside. I just looked at the options and kind of like, you know, the program and the length and something that would fit me, as far as the cost, as far as like, admissions and the type of

students they would take, because I think they have different criteria for the admissions eligibility. So [I made my decision] based on just Google research.

A few students mentioned YouTube and TikTok videos and television programs that introduced them to or interested them in a particular job. Some used ChatGPT to research occupations and the wages that would come with them.

Additional sources of information for some students were social services or employment agencies. For example, a 32-year-old Hispanic male who was enrolled in the LaGuardia Community Healthworker program learned about it from an e-newsletter he received from the New York City Housing Authority. A 41-year-old woman enrolled in NOVA's medical billing and coding program described hearing about it from her Supplemental Nutrition Assistance Program (SNAP) case manager:

> *I got the information from—I'm in SNAP, which is for like, EBT [electronic benefits transfer]. And they have like, a work program, where they help you find a job. Any means like, through you know, going to school or whatever. So they helped me enroll.*

Many students accessed information provided directly from the colleges by visiting the colleges' websites to browse different program opportunities and learn about enrollment requirements. Students typically reported contact with college staff only after they had decided on a program and not for advising on which program to choose. Students tended to contact staff for assistance with the enrollment or financial aid processes.

Some programs required students to participate in online orientation sessions; this varied across the colleges. Mt. SAC offered live online group orientation sessions to share program expectations and other information so that students were ready for the first day. For example, the sessions at Mt. SAC for the medical assistant program provided information on the course schedule, materials needed, and how to find the course in the online learning management system. Counselors who were dedicated to the STV programs also provided information on college resources, such as laptop loans, bus passes, career services, and basic needs support. When prospective students did not participate in the online session, the counselors would reach out to them to try to schedule individual meetings.

At NOVA, students could not directly register for healthcare classes without completing an online orientation that was self-directed, with modules to read and "assignments" such as uploading evidence of any required immunizations. The orientation culminates in a quiz that students must pass to be able to enroll. At LaGuardia, some competitive and high-demand programs include orientations and screening procedures. In addition, when students apply for college scholarships, they must have a one-on-one interview with college staff, who also provide program information. As described, New York does not provide regular support for noncredit tuition.

> *Interviewer: And did you talk to anyone from the school?*

Participant: I did speak to somebody. Well, I spoke to them when I had to do the interview for the scholarship, and they just gave me a rundown about everything and like, how it will work and how the program will go, and like, the scheduling and all the requirements.

Some students cited multiple sources of information and what appear to be serendipitous experiences or events that led them to choose a program and enroll. One 42-year-old woman enrolled in Mt. SAC's EMT program illustrates this:

When I first moved to California, I was looking for work, and I went to the WorkSource office. They had flyers out, and they actually had a flyer for a Registered Behavior Technician program … I understood it would be working with autistic children, and that also interested me … That was also the other big thing, was that it's a free program. And so I actually went and registered for that, but then realized after some self-reflection and so forth that I'd rather be an EMT. So when I got to Mt. SAC to register for the other program, I saw all their flyers for all their free programs, and I was like, 'Oh my gosh, there's so much more I could do. Oh look, there's an EMT program I've always really been into.' I also got obsessed with a show called 'Nightwatch.' It follows EMTs in New Orleans. Okay, so that was another big, like, push about that … That's how I ended up at Mt. SAC, really, from a flyer at a WorkSource place …

… Mt. SAC did an information session online, and that's how I found out more about the program. I did not know anybody that had done the program before. When I started asking around to people that I knew if they heard about the Mt. SAC EMT program, I heard a lot of people say, 'Oh, I've heard that's a really good program.' And so that kind of also solidified, like, 'Okay, people know about this. Yeah, so seems legit.' Yeah, mostly the information session kind of told me what I needed to know to keep going.

These accounts demonstrate how interviewees' decisions to enroll in noncredit programs rarely emerged from a single source of information. Rather, decisions to enroll were influenced by a combination of encouragement from family and friends, online searching, institutional communication, and even encounters with flyers or social service referrals. These information sources and influences aided interviewees in making sense of programming options given financial constraints, personal obligations, and their own intended outcomes, ultimately informing which program options felt attainable and worth pursuing.

Conclusion

Given the paucity of data on noncredit workforce programming until recently, there have been many questions about its quality and value. *Can such short-term programs yield value for students who complete them? Who are the students who are enrolling? What are their reasons and goals for enrolling?* Our study sought to better understand the enrollment decision-making processes of noncredit students, with particular attention to which enrollment considerations played a crucial role in their decision to enroll now. A body of literature is beginning to paint a picture of a diverse and complex noncredit student body. At various stages of life, each student brings their own unique life circumstances with various goals, education backgrounds, and constraints that influence their decision to enroll in noncredit education. Our main findings are as follows:

Nonlinear Education Paths

Most interviewees had prior experience in credit-based programs. Many interviewees had education pathways that were decidedly nonlinear, characterized by interrupted enrollment, movement between credit and noncredit programs, and accumulation of disparate credentials that do not necessarily "stack" in traditional ways to advance to degrees. This pattern extends the concept of student "swirling" beyond its traditional focus on credit-bearing programs to encompass the full range of postsecondary options, revealing previously under-documented forms of education mobility. Additional research is needed to help understand this swirling and the circumstances that drive it, whether financial constraints, disillusionment with for-credit academic courses or degrees, or other reasons, to inform practices and policies that could help individuals choose and achieve a sustaining career sooner. A key element to informing and supporting students' choices is for colleges to ensure that prospective students are counseled on the entire variety of their program offerings, credit and noncredit, and the employment opportunities they lead to.

Diverse Goals

Many learners are focused on a credential for immediate employment; some are interested in longer credit pathways. Interviewees sought varied outcomes from their noncredit programs. Many needed to quickly acquire a credential to secure a job that would increase their wages, benefits, and overall stability. Others considered furthering their education beyond noncredit courses, sometimes through specific plans but in other cases abstractly. As institutions focus efforts on transitioning students from noncredit to credit programs, it is essential to understand students' prior experiences in higher education—including the possibility that a degree is something they have already attempted and not achieved—and consider that a student may not wish to make another attempt or cannot do so for personal reasons. These findings raise questions about the assumption that noncredit students should (or want to) progress along an education pathway or stack into credit-bearing programs, as this was not a universal desire among our interviewee

sample. The current focus on creating pathways to degrees may reflect a broader societal push for college attainment rather than what students perceive as personally feasible.

Cost is Key

Feasibility—especially affordability—drove these learners' enrollment decisions. The interviewees expressed that the availability of free, convenient programs at a particular time in their lives showed the practicality and possibility of enrolling. We found that, regardless of intended education trajectory, program feasibility was the key consideration influencing students' decisions to enroll now. Interviewees overwhelmingly emphasized the free or low-cost nature of the programs as well as highlighted how the short program duration and convenient schedules fit with their other daily obligations. These findings underscore the importance of ensuring sustainable funding for free or low-cost noncredit workforce programs that reduces cost barriers, such as in California and Virginia's FastForward program. Furthermore, interviewees commonly learned about their noncredit options through word of mouth, online searches, institutions' websites, flyers, information sessions, and even social media, and were strongly influenced to enroll by the encouragement and advice of people within their social networks.

Through this work, we aim to help fill critical gaps in research on noncredit education. Without adequate data and research, it is challenging to assess the quality of noncredit offerings, understand which students are being served and how well, identify effective practices, or make informed policy decisions about funding and program development. At the conclusion of our study, questions remain, such as whether these learners are in a program that will provide the wages and upward mobility many say they desperately need, or whether they are positioned to attain additional higher education, if so desired. Still, by studying students' enrollment decisions, goals, and constraints, our study provides evidence that can inform program design and policies, better aligning noncredit workforce education with the needs and goals of the students it is intended to serve.

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Appendix A. Detailed Methodology

Study Design

This qualitative study employs semi-structured phenomenological interviews to explore the experiences of students enrolled in noncredit workforce programs. The phenomenological approach allows us to understand how students make meaning of their education journeys and enrollment decisions (Seidman, 2006). We conducted interviews with students enrolled in noncredit workforce programs at three community colleges across the country: LaGuardia Community College (LaGuardia/LAG) in New York, Mt. San Antonio College (Mt.SAC) in California, and Northern Virginia Community College (NOVA) in Virginia. We focus specifically on students without prior degrees. We had previously conducted research at these colleges (Van Noy et al., 2023). As such, relationships with college leaders and staff allowed for communication throughout the project to document any changes in programming, student outreach, or services, and to collaborate on the recruitment of students for interviews.

Participant Recruitment

Recruitment of students proved to be a major challenge for the research team and required significant iteration of strategies over the course of the study. The research team developed a short pre-interview screening survey to collect demographics, contact information, degree status, and program enrollment information. Initially, between June 2024 and January 2025, recruitment occurred through emails sent by institutional research partners at each college to students enrolled in eligible noncredit workforce programs. These emails contained a link to the Qualtrics screening survey. The research team then followed up with eligible students via email, providing a Microsoft Bookings link for self-scheduling interviews via Zoom. This initial recruitment method yielded limited responses and high rates of no-shows for scheduled interviews, especially at Mt. SAC and LaGuardia.

In late January 2025, the research team revised the recruitment strategy to include in-person visits to noncredit classes at Mt. SAC and LaGuardia. During these visits, researchers distributed paper surveys and QR codes that linked to the screening survey, explained the study directly to students and answered questions. The team also shifted from automated scheduling to direct communication with students via their preferred method (email or text message), offering specific date and time options rather than relying on self-scheduling links. In addition, the team began conducting the interviews by phone rather than Zoom. Finally, the interview incentive payment was increased from $25 to $50. These changes improved recruitment effectiveness, resulting in a significant increase in both survey response and interview completion rates. In just three months following the strategy revision, the team conducted 57 additional interviews compared to 28 interviews in the preceding seven months.

Recruitment Timeline and Outreach

At NOVA, recruitment emails were sent to 1,400 workforce students in July 2024 and to 1,200 students (excluding ESL programs) in December 2024. At LaGuardia, a recruitment email was sent to 520 students across 17 training programs in November 2024, followed by two in-person recruitment visits in February and July 2025. At Mt. SAC,

recruitment emails were sent to 299 students in June 2024, 586 students in September 2024, and 345 students in July 2025, with an in-person recruitment visit in April 2025.

The screening survey initially proved imperfect in excluding students with prior degrees. Early in the interview process, the research team discovered that several participants held degrees from countries outside the United States. In response, recruitment materials (i.e., flyers, emails, and scripts) were revised to explicitly state that eligibility required that the participant hold no degree from any country. Despite this clarification, some ineligible participants still completed the screening survey and were not identified as degree-holders until partway through their interviews.

Sample

Ninety-five interviews were conducted between June 17, 2024, and July 31, 2025, across three sites: LaGuardia (n = 22), Mt. SAC (n = 34), and NOVA (n = 39). Twelve interviews were excluded from the analytic sample: two from LAG, four from Mt. SAC, and six from NOVA. The reasons for exclusion included possession of a prior degree that did not align with study criteria (n = 10), a language barrier that prevented coverage of interview topics (n = 1), and enrollment in ESL only (n = 1). The final sample consists of 83 participants: 20 from LaGuardia, 30 from Mt. SAC, and 33 from NOVA.

Data Collection

Virtual interviews lasted 45–60 minutes and were conducted via Zoom and by telephone. The semi-structured interview protocol was developed by the research team based on prior work in the field and literature on noncredit education and community college students. The protocol was piloted with students before being used with the study sample. Interview topics included participants' education and employment histories, reasons for enrolling in noncredit programs, decision-making processes and information sources, program experiences, and career goals. Interviews were transcribed by Otter.ai and checked by research assistants for accuracy.

Data Analysis

Interview transcripts were uploaded into NVivo for coding by research team members. Two rounds of coding were completed. First, the research team developed an initial codebook based on prior projects and the first set of interviews, which was refined after piloting. Upon initial completion of coding, a second round of inductive coding focused on identifying and fine-tuning key considerations for student enrollment in noncredit programs (Saldaña, 2021). Student attributes were also specified and loaded into NVivo. Cross tabulations were then run to identify patterns across sites and student populations. Age cohort, gender, race, ethnicity, program institution, program field, and VESL status served as the initial set of attributes to compare our study sample. We also identified additional attributes, including paid for program, prior college enrollment, prior college enrollment type, prior noncredit credential obtainment, simultaneous enrollment, simultaneous enrollment type, employment status, and employment field. All coding was conducted using NVivo qualitative data analysis software, which facilitated systematic organization, coding, and analysis of interview data across 84 transcripts.

Appendix B. Program Description for Study Participants by Institution

Table A. Description of Programs in Which Study Participants at Laguardia Were Enrolled

Program Name	Field	Description
Certified Clinical Medical Assistant (CCMA)	Healthcare	The program offers six courses and prepares students to help physicians with procedures. The program prepares students to take the national certification examination for CCMAs. To sit for the exam, students must successfully pass all six courses.
Central Service Technician (CST) Certificate *(also, Central Sterile Technician)*	Healthcare	Coursework focuses on the requirements of the Healthcare Sterile Processing Association. Students learn about decontaminating, sterilizing, assembling, storing, and distributing medical devices and equipment. The program prepares students to take the Certified Registered CST certification exam. Upon program completion, students earn a certificate and exam voucher.
Community Health Worker (CHW) Certificate Training Program	Healthcare	The program provides instruction and builds academic skills to prepare students to enter or advance in the workplace as a CHW. The program develops skills in communication, case management, cultural competence, coaching, population health, and other aspects of health and wellness. The program offers three college-level courses (nine credits).
Electrical 1 Training Program	Trades	The program prepares students for entry-level careers in the electrical field. The program includes OSHA 30-Hour certification and utilizes the National Center for Construction Education & Research (NCCER) Construction Core and Electrical Level 1 curricula.
Emergency Medical Technician (EMT)	Healthcare	The EMT-Basic course prepares students to provide patient care on an emergency ambulance. The course prepares students to take the NYS Department of Health certification exam for EMT-Basic. Successful completion of the course is required to advance to the one-year program in paramedic education.
Paramedic Original	Healthcare	The program prepares students with the technical skills, expert knowledge, and clinical experience necessary to excel as a New York State/New York City-certified paramedic. Successful completion of the program qualifies students to take the initial New York City Regional Emergency Medical Advisory Committee (NYC REMAC) paramedic certification at no cost. Students have the option to participate in a one-year certificate or two-year AAS degree.
Pharmacy Technician	Healthcare	The program prepares students for the Pharmacy Technician certification exam to become Certified Pharmacy Technicians. Students learn the history of pharmacy practice, law and ethics, basic math skills, pharmacy terminology, reading and interpreting prescriptions, and defining drugs by generic and brand names. Students also study dosage calculations and conversions, IV flow rates, drug compounding, dispensing of prescriptions, inventory control and billing, and reimbursement.

Program Name	Field	Description
Plumbing 1 Training Program	Trades	The program prepares students for entry-level careers in the plumbing field. The program includes OSHA 30-Hour certification and utilizes the National Center for Construction Education & Research (NCCER) Construction Core and Plumbing Level 1 curricula.
Refrigeration Machine Operator License Preparation	Trades	Students learn about maintenance and repair of compression and absorption refrigeration systems as well as safety precautions for operating, maintaining, and repairing refrigeration machinery. Successful completion of the course allows students to sit for the Fire Department of New York's Examination for Certificate of Qualification for Refrigeration Operating Engineer.

Table B. Descriptions of Program in which Study Participants at Mt. SAC Were Enrolled

Program Name	Field	Description
Accounting	Business	The program comprises two courses that prepare students for entry-level accounting jobs. The program provides instruction on accounting vocabulary and theory, simple and compound interest, present value, consumer and business credit, mortgages, financial statements and ratios, inventory, depreciation, business taxes, and investments.
Electronics Systems Technology	IT	The program comprises three courses: Electrical Fundamentals, Cabling and Wiring Standards, and Home Electronic Systems.
Emergency Medical Technician (EMT)	Healthcare	Designed for noncredit students who are seeking immediate employment, the program comprises two courses. The program prepares students to work for an ambulance service or in related fire departments, hospitals, or other rescue services. Upon program completion, students earn an EMT Course Completion Certificate, which is required to sit for the National Registry certifying exam
Floral Design	Other	The program offers three courses. Upon completion of the program, students are awarded a certificate and are prepared to secure jobs in floral design beyond entry-level positions, including first-line supervision, management, and floral designers.
Medical Assistant Certificate	Other	The program offers five courses and prepares students for entry-level positions in administrative or clinical career paths. Students learn about the medical assistant's scope of practice, tasks, and responsibilities; basic pharmacology for medical assistants; and medical front office operations. Upon program completion, students are awarded a Medical Assistant Certificate of Completion, which is required to sit for the National Certified Medical Assistant Exam.
Ownership Clerk	Business	The program offers two courses and introduces students to change-in-ownership policies as stated in the California Assessor Handbook, Section 401. The program is particularly beneficial for real estate agents, brokers, paralegals, legal assistants, property managers, estate professionals, and notaries.
Payroll and Tax Accounting	Business	The program offers two courses and prepares students for entry-level tax positions as well as payroll and timekeeping clerk roles. The program teaches students the tax procedures required by the employer and employee in filing the correct forms for Social Security, federal and state income taxes, and their reconciliation. In addition, the

Program Name	Field	Description
		program introduces students to the laws related to Workers' Compensation, State Disability Benefit Laws, and Fair Employment Practices.
Pharmacy Technician	Healthcare	This program is designed for noncredit students who are seeking immediate entry-level employment as a pharmacy technician. The program comprises four courses that prepare students for licensing, foundational pharmacy technology skills, and training. The program is intended for students who plan to enter more advanced pharmacy technology programs.
Registered Behavior Technician (RBT)	Other	The program offers two courses and prepares students to take the RBT exam. Students learn fundamental skills like measurement, assessment, skill acquisition, behavior reduction, documentation and reporting, and professional conduct and scope of practice. Upon program completion, students earn a Certificate of Completion in RBT.
Small Business Management	Business	The course prepares students to organize, start, and operate a small business enterprise.

Table C. Descriptions of Programs in which Study Participants at NOVA Were Enrolled

Program Name	Field	Description
Certified Billing & Coding Specialist (CBCS)	Healthcare	The program is designed for individuals who have no prior experience in healthcare. The course requires students to have a strong understanding of the English language. This program meets the necessary requirements to take the National Healthcareer Association (NHA) CBCS exam.
Certified Clinical Medical Assistant (CCMA)	Healthcare	The course is designed as a credential-to-career course. The course prepares students to sit for the NHA CCMA examination.
Commercial Driver's License Class A Training (CDL-A)	Others	The program provides students with training to inspect and operate tractor-trailers in preparation for the CDL-A skills exam. The curriculum also teaches driver responsibilities on the road and at pickup/delivery points. Emphasis is placed on vehicle inspections, defensive driving, range maneuvers, motor carrier safety regulations (DOT 380-397 and a certificate for entry-level drivers), trip planning, cargo handling, size/weight laws, general maintenance procedures, and accident prevention.
Nurse Aide Preparation (CNA)	Healthcare	The noncredit program is a state-approved 150-hour program that prepares students to work under the supervision of a licensed practical nurse, registered nurse, or physician as an entry-level nurse aide in a variety of inpatient and outpatient care settings
Cybersecurity	IT	Not enough information provided by participant to accurately report description of program/course.
CompTIA© Data+	IT	Develops essential data management and analytical skills for AI, validating the ability to collect, analyze, and interpret data, and ensuring proficiency in data preparation, visualization, and governance for AI and machine learning.
CompTIA© Linux+	IT	Linux is the primary OS for AI, machine learning, and data science. This certification confirms students can configure, secure, and automate Linux

Program Name	Field	Description
		systems—skills essential for running Python, managing data pipelines, and supporting AI model deployment
CompTIA© Network+	IT	This course is a certification prep course. Topics include network media, architecture, operations, technologies, and devices. Students gain a basic understanding of emerging technologies, including unified communications, mobile, cloud, and virtualization. Students must sit for the Industry Credentials exam within 60 days of the last class session.
Dental Radiation Safety	Healthcare	The online seminar satisfies the Virginia Board of Dentistry's Radiation Certification requirement (18VAC60-30-80), enabling certified individuals to take dental X-rays in Virginia. The course focuses on the safe use of X-ray equipment.
EPA Section 608 Technician Certification	Trades	The program provides fundamental knowledge for working with residential and commercial systems, including the basics of air conditioning, refrigeration, and heating systems. Upon course completion, students have the opportunity to test and obtain the EPA Section 608 Technician certification.
IT Specialist: Python Certification	IT	This course provides hands-on learning to develop skills in data types and operators, flow control with decisions and loops, input and output operations, code documentation and structure, as well as troubleshooting and error handling. Students gain experience in performing basic file system and command-line operations using built-in modules. This course prepares students for the VUE IT Specialist-Python certification.
Licensed Practical Nurse (LPN)	Healthcare	The Virginia Board of Nursing-approved Practical Nurse Education program is a 1,310-hour, 12-to-14- month-long full-time education program offered through NOVA Workforce. This program is designed for current Virginia CNAs to continue their healthcare training through intensive credential stacking and rigorous Practical Nurse education.
Phlebotomy Technician	Healthcare	Students learn how to draw blood from patients and blood donors; evaluate patients' ability to withstand procedure; explain blood-drawing procedure to patients and answer questions; perform basic point-of-care testing; prepare blood, urine and other specimens for testing; verify patient/donor identity; and maintain medical equipment. Students sit for the national certification exam during the final class.
SHRM Certification Exam Preparation (SHRM-CP)	Human Resources	Offered in partnership with the Society for Human Resource Management (SHRM), the curriculum covers the entire SHRM BASK and prepares students for the SHRM exam. The course features access to assessments, practice questions, learning modules, quick-start videos, study flashcards, post-tests, and an online resource center. This course includes 36 hours of instruction, the SHRM Learning System, and the SHRM Exam Fee.

Appendix C. Field and ESU/VESL Enrollment by Institution

Table 1 D. Field and VESL Enrollment by Institution

| | Institution | | | | | | Total | |
| | LAG (*n*=20) | | MS (n=30) | | NOVA (n=33) | | | |
	n	%	*n*	%	*n*	%	*n*	%
Field								
Business	0	0	6	20	2	6	8	10
Healthcare	16	80	15	50	20	61	51	61
HR	0	0	0	0	2	6	2	2
IT	0	0	2	7	5	15	7	8
Trades	4	20	0	0	1	3	5	6
Other	0	0	7	23	3	9	10	12
ESU/VESL								
Yes	0	0	4	13	0	0	4	5
No	20	100	26	87	33	100	79	95
Unknown	0	0	0	0	0	0	1	0

Note. *N*= 83

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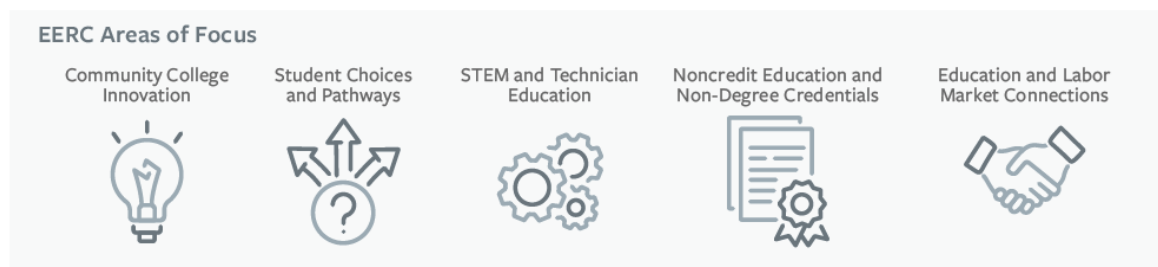
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Rutgers' Education and Employment Research Center (EERC) is housed within the School of Management and Labor Relations. EERC conducts research and evaluation on programs and policies at the intersection of education and employment. Our work strives to improve policy and practice so that institutions may provide educational programs and pathways that ensure individuals obtain the education needed for success in the workplace, and employers have a skilled workforce to meet their human resource needs. For more information on our mission and current research, visit smlr.rutgers.edu/eerc.

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