

“If I Could Go Back...”: Understanding the Education and Career Decisions of Forgivable Loan Recipients in the North Carolina Teaching Fellows Program

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ABSTRACT

This narrative case study features the early career experiences and outcomes of eight former pre-service teachers in the North Carolina Teaching Fellows program (NCTFP). The NCTFP is a teacher recruitment program that provides forgivable loans and professional development in exchange for participants' commitment to teach in high-needs subjects upon graduation. Study participants joined the NCTFP in 2018-19 as postsecondary students in secondary STEM education. Interview and written data were collected in 2019 to understand how and why students chose to participate in the NCTFP and their educational and career goals. Follow up interviews were conducted in 2024 to understand how participants' educational and career interests and plans remained consistent or deviated over time, especially in the context of NCTFP forgivable loans and service commitments. Three major themes illustrate the ways that educational structures, actual teaching experiences, and the loans themselves shaped participants' lives, and their plans for the future.

Keywords: student loan forgiveness, teachers, STEM, career development

I got a lot of the ‘don’t teach’ when I was in high school... My senior year English teacher, she was like, ‘You could do so much more. Don’t teach, because, once you teach, you’re trapped.’... I was like, ‘Well, I feel like my story isn’t going to be the same.’... The pay thing was really bothering them but that’s not something that gets to me.

Zoe, 2018-19, 1st year undergraduate student

Rent is \$2,000 upwards...I’ve never been able to live alone... That’s probably one of the biggest factors that makes me want to leave [teaching]...I cannot afford life doing this job...Since we’re on the monthly pay, we’re making about \$2,800. I had to get a car, got to get gas ... all the things start to stack up.

Zoe, 2024-25, 3rd year teacher

In response to pervasive teacher shortages, the U.S. federal government and many states, cities, and school districts have implemented teacher recruitment initiatives. Economic incentives are a popular intervention approach for teacher recruitment in the United States (Thompson-Lee et al., 2025), and limited-duration economic incentives, such as bonuses, stipends, student loan forgiveness, or forgivable loans have been a particularly popular approach at the state level (Kolbe & Strunk, 2012). This study focuses on eight participants' experiences in the North Carolina Teaching Fellows program (NCTFP), a storied teacher recruitment program in North Carolina (NC) that uses forgivable loans as a recruitment and early career retention mechanism.

Teacher shortages are not a new issue in NC; indeed, the original NCTFP was envisioned in the 1980s as part of a swath of teacher recruitment and support initiatives in the state (Darling-Hammond et al., 2022). Launched in 1987, the original NCTFP sought to recruit high-achieving students into the teaching profession by providing selected

Fellows with grants “treated as loans” (i.e., loans forgiven through postgraduate teaching service; Public School Forum of North Carolina [PSFNC], 1986), and extensive professional development in preparation for the teaching profession. The original NCTFP was large and popular, enrolling over 10,700 Fellows from 17 institutions throughout its 1987–2011 tenure (Cohen, 2015).

In 2018–19, NC policymakers redesigned and relaunched the NCTFP in efforts toward rebuilding the state’s teacher workforce (NCTFP, 2017). Like its predecessor, the new version of the program provided forgivable loans and professional development to postsecondary students committed to teaching in NC public schools upon graduation. However, the new NCTFP was far smaller than its predecessor, offered at fewer institutions, and limited to students entering teacher preparation programs in the state’s hardest-to-staff subject areas: secondary STEM and special education. The new program also provided larger loans with greater postgraduate service requirements (NCTFP, 2017; see methods section for more policy details).

This longitudinal narrative case study focuses on the experiences of eight participants who enrolled in the relaunched NCTFP in its inaugural year. Data collection first took place in 2018–19 to understand participants’ decisions to join the NCTFP and their education and career interests and goals (see Smith, 2019, 2021, 2022), and again in Fall 2024 to understand participants’ early career experiences and outcomes, especially in relation to their NCTFP loans. This study answers the research question: How did 2018–19 NC Teaching Fellows participants navigate educational and career decisions in the context of the program’s forgivable loans?

OVERVIEW OF THE LITERATURE

Throughout this manuscript, I use the term “forgivable loans” to refer to programs or policies where postsecondary students receive upfront loans or stipends that may be repaid via postgraduate service, or in cash with interest. Although limited duration economic incentives are a popular policy lever across teacher recruitment programs (Kolbe & Strunk, 2012), there seems to be very little existing research specific to forgivable loan programs. At the same time, this research is difficult to locate. Researchers and policymakers alike use a variety of terms in reference to this type of financial incentive, including “grant,” as in the case of the original NCTFP (PSFNC, 1986) and the Teacher Education Assistance for College and Higher Education (TEACH) Grant program (Federal Student Aid [FSA], n.d.), “grant-to-loan” (e.g., Sparks, 2025), “scholarship” (e.g., Henry et al., 2012; Marder et al., 2017) and more, resulting in confusing policy structures, and the lack of a cohesive body of research.

Economic Incentives and Forgivable Loans

Across initiatives, research on teacher recruitment incentives generally focuses on large-scale outcomes, essentially asking whether financial incentives effectively recruit and retain teachers. Results are mixed, typically indicating that financial incentives are more effective in retaining than recruiting teachers (Thompson-Lee et al., 2025). However, effectiveness also depends on the size and nature of the incentive, as well as its larger context, including region, school, teacher, and student characteristics. The more difficult the working conditions in a school and the more qualified the teacher, the larger the incentive needs to be (Clotfelter et al., 2011).

Although there is limited research specific to forgivable loan incentives, the federal TEACH Grant program provides one illustrative example. In spite of its name, the TEACH Grant is a forgivable loan program that provides enrollees in eligible programs up to \$4,000 per year (FSA, n.d.). In exchange, recipients agree to teach for at least four years in a designated high-need subject area or position within eight years of completing their degree (among other stipulations; FSA, n.d.).

Evidence on the impact of the TEACH Grant is mixed. Two studies investigated whether the TEACH Grant increased enrollment in education degrees in high-need subjects—Peyton et al. (2023) found no impact, while Sparks (2025) found a modest impact, particularly among Students of Color. At the same time, there is an inherent selection issue, as many institutions opt out of the TEACH Grant program (Sparks, 2024), or place extra limits on student eligibility (Barkowski et al., 2018). In an evaluation, Barkowski et al. (2018) found that 63% of TEACH Grant recipients who began their service obligation period prior to July 2014 had grants converted to unsubsidized loans by June 2016. Common reasons included inability to find eligible employment (15%), changing one’s mind about teaching in high-need fields or schools (15%), not receiving qualifying job offers (14%), finding higher paying jobs at a non-qualifying school (13%) or other reasons (43%, e.g., school lost its high-need designation, layoffs).

In writing about the TEACH Grant, I can’t help but to recall a conversation I once had with a financial aid officer who referred to the TEACH Grant’s forgivable loan structure as a *groan*—a loan disguised as a grant. The negative

connotation of “groan” was not accidental; the program had caused considerable headache for him and program enrollees alike.

Outcomes from the Original North Carolina Teaching Fellows Program

As mentioned in the introduction, the original NCTFP was large, and popular. According to many metrics, the program was also successful; widely considered a model for other states (e.g., Carver-Thomas & Darling-Hammond, 2017; Clewell & Forcier, 2001; Hirsch et al., 2001; Podolsky & Kini, 2016). According to the PSFNC (2008), Fellows in the original program had a higher graduation rate (85%) than students across the University of North Carolina (UNC) System (54%) and entered teaching positions at higher rates (78%) than education students across the U.S (66%).

Despite its many accolades, a deeper investigation shows several shortcomings. An evaluation by Henry et al. (2012) found that the original NCTFP had two primary achievements: success in recruiting high-achieving students into teaching, and higher teacher retention rates among Fellows—two of the program’s original objectives. However, the program fell short in meeting other objectives, especially in its failure to diversify the state’s teacher workforce by recruiting more men and racially minoritized students into teaching. Further, Fellows generally did not enter teaching positions in low-performing or low-income schools, thus propagating existing educational disparities within the state (Henry et al., 2012).

Notably, Henry et al.’s (2012) evaluation overlooked whether participants completed the full length of their required service or repaid their NCTFP loans. This gap is common; most research attends to overall program performance rather than individualized outcomes and qualitative accounts. Still, there is evidence that many Fellows did not complete their service. One 2003 audit showed that 29% of Fellows had paid back their loans in cash (North Carolina Office of the State Auditor [NCOSA], 2003). Over ten years later, Cohen’s (2015) report showed similar figures; 30% of Fellows paid back loans in cash. To complement these figures, a news story by Hinchcliffe (2019) covered the experiences of 21 Men of Color and former Teaching Fellows who paid their loans back in cash instead of service. In explaining their trajectories, interviewees described receiving unanticipated professional opportunities that were ineligible for forgiveness, difficulties finding eligible employment, and administrative challenges.

CONCEPTUAL FRAMEWORK

The framework for this study is time-inconsistent preferences, a concept derived from behavioral economics. Traditional economics concepts are based on rational choice, or the idea that people make decisions by weighing costs against returns to make rational, optimal choices (Scott, 2000). According to behavioral economists, this process is unrealistic, as optimal choices can only be made when a person has perfect access to information, understands this information, and has beliefs that remain stable over time (Kahneman, 2003; Tversky & Kahneman, 1986; Weimer, 2017). Instead, humans demonstrate bounded rationality, making decisions based on limited information and biases based on the way information is presented, personal interests, simplifying strategies, and changing preferences (DellaVigna, 2009; Jabbar, 2011; Kahneman, 2003). Such constraints are highly salient for college students, given many students’ relative inexperience and the deep complexity of education and work systems (Castleman, 2015).

The concept of time-inconsistent preferences represents the idea that personal preferences change over time, and that people demonstrate a bias towards present interests (Baum & Schwartz, 2015; Camerer, 2014; DellaVigna, 2009). According to this idea, present-day tasks are perceived more cumbersome than those in the future, leading to discrepancies between long-term goals and short-term actions (Castleman, 2015). This bias is economic and affective; although people make decisions based on what they believe will make them happiest, it is difficult to predict future desires, and present bias leads to suboptimal decisions (Fudenberg, 2006).

The concept of time-inconsistent preferences has many applications to education and career decision-making. For example, college enrollment requires significant upfront financial and opportunity costs, while the economic benefits are typically only realized after completion (Dynarski & Kreisman, 2013). As forgivable loans also have temporal mismatches between proximal benefits (i.e., funding and professional development) and distal costs (i.e., teacher service), time-inconsistent preferences may help explain why some students in forgivable loan programs like the NCTFP repay loans in cash. Thus, through its longitudinal qualitative design, this study seeks to understand how NCTFP participants’ preferences changed—or not—over a six-year period.

METHODS

This longitudinal narrative case study (Gotham & Staples, 1996) uses qualitative data to understand eight pre-service Teaching Fellows' educational and career experiences, decisions, and early career outcomes as they relate to the NCTFP. Narrative case study research combines two methodologies, narrative inquiry and case study (Gotham & Staples, 1996). Centering human narratives and life stories, narrative inquiry is defined by its present-centered focus on life histories (Connelly & Clandinin, 1990). Reflection on life histories provides insight into identity development, including professional identity, with special attention to events, interruptions, and tensions as turning points (Creswell, 2014; McAdams et al., 2006). In contrast, case study emphasizes an in-depth description and analysis of a contemporary phenomenon within a bounded context (Yin, 2017). Combining these approaches enabled me to answer the research question by analyzing participants' life stories within a context bounded by both policy and time.

Case Context: North Carolina and the 2018-19 North Carolina Teaching Fellows Program

Despite its popularity, the original NCTFP was defunded in 2011 as part of cuts made by a new NC political regime following the 2008 Great Recession (Darling-Hammond et al., 2022). From 2009 to 2018, the number of NC teachers declined by 5% while student enrollment increased by 2% (Darling-Hammond et al., 2022). Compared to national averages, NC has a higher percentage of schools with unfilled or hard-to-fill teaching vacancies (51.9% in NC vs. 46.9% across the U.S.). NC teachers also have a lower average starting salary (\$42,610 in NC vs. \$44,530 nationally in 2022-23), higher rates of job dissatisfaction (12.7% vs. 10.9%), and a higher proportion of teachers working additional jobs (20.3% vs. 17.1%; Learning Policy Institute [LPI], 2024). Like many states, NC has also seen declining participation in its teacher preparation programs, indicating waning interest in the profession (10.5% decline from 2017-18 to 2021-22; LPI, 2024).

In 2018-19, state policymakers relaunched the NCTFP in response to growing shortages. The new NCTFP was far smaller in size and scope than its predecessor, with a 2018-19 budget of \$6 million (North Carolina General Assembly, 2017). The new NCTFP partnered with just five institutions¹ and restricted student eligibility to two subject areas based on state needs: STEM and special education (NCTFP, 2017). Like its predecessor, the relaunched NCTFP emphasized the recruitment of high-achieving students, with a rigorous selection process (Smith, 2019).

Notably, while the original program only admitted incoming bachelor's students, the relaunched program was open to incoming and already-enrolled undergraduate and graduate students transferring into approved teacher preparation programs in eligible licensure areas (NCTFP, 2017). The forgivable loans were also larger, at \$8,250/year with an interest rate "not to exceed 10%" (NCTFP, 2017). Fellows' eligibility for loans varied based on their educational status; those admitted as incoming bachelor's students were eligible for four years of funding (up to \$33,000), while already-enrolled students with over 24 credit hours who were admitted to the NCTFP were eligible for up to two years of funding (\$16,500; UNC System, 2022).

With larger loans, the new NCTFP also required longer terms of service. In the new program, Fellows were required to teach for two years per year of funding received. Thus, first-year undergraduates who received four years of funding were required to teach for eight years. One caveat, however, was an incentive for teaching in "low-performing schools,"² which halved the required service terms. The new program therefore sought to recruit and retain high-achieving students into teaching positions in high-needs subjects, especially in low-performing schools. In 2018-19, 74 students were accepted and participated in the NCTFP, including 53 in STEM education—the focus of this study (UNC System, 2022).

Since its relaunch, the NCTFP has grown and changed in critical ways. As of 2025-26, the NCTFP has 10 partner institutions and elementary education was added as a high-needs subject area (UNC System, 2026). The forgivable loan amounts have also grown (up to \$10,000/year), while service requirements were reduced (one year of service per year of funding). The low-performing service incentive was removed (UNC System, 2026). Despite these updates, study participants joined the program in 2018-19 and are therefore beholden to NCTFP requirements from its inaugural relaunched year.

¹ Partner institutions included three public institutions: North Carolina State University, UNC Chapel Hill, UNC Charlotte, and two private institutions: Elon University and Meredith College.

² Low-performing schools are identified by the North Carolina Board of Education's Department of Public Instruction School (NCDPI) Report Cards, where schools are assigned A-F letter grades. Report Card grades are based mostly (80%) on school achievement scores, calculated from a composite of test measures, and academic growth (20%), where student performance is compared to predicted performance (NCDPI, 2018).

Data Collection

Data for this study were collected at two major time points: 2018-19 and 2024-25.

2018-19 Data Collection

After receiving IRB approval, I began recruitment by sharing study information with NCTFP coordinators at each partner institution and the UNC System office, and by conducting 30–60-minute interviews with coordinators to strengthen my understanding of the program across sites. All coordinators agreed to share study information with qualifying Fellows. Students were eligible if they were enrolled in the NCTFP, were age 18+, and were enrolled in secondary STEM education programs. Prospective participants completed an electronic survey to indicate interest and confirm eligibility. All eligible respondents were invited, 10 participated across five institutions.

In Spring 2019, each participant completed background surveys, a 90-minute in-person interview, and a 45-minute follow up interview. To begin the first interview, participants were provided with paper and a pencil and were asked to create a timeline representing key events in their educational and career development history. Consistent with narrative inquiry, this activity was designed to promote recall, give participants ownership over their experiences without the priming effects of interview questions, build rapport, and promote triangulation (Bagnoli, 2009). Next, interviews followed a semi-structured protocol of questions focused on participant academic and career interests, NCTFP interests and experiences, and postgraduate plans. Interview participants were compensated with a \$25 Amazon gift certificate.

Approximately one month later, I conducted follow-up interviews with each participant to confirm narrative details and to solicit their feedback on emerging study themes (more in the analysis section). These interviews took place in-person, virtually or over the phone based on mutual availability. Follow-up interviews were recorded and manually transcribed, and participants received a \$15 Amazon gift certificate. At this phase, I also told participants about the possibility of a five-year follow-up study and solicited consent for related communications. All participants consented and shared their personal email addresses, phone numbers, and mailing addresses.

2024 Data Collection

After receiving IRB approval for the follow-up study, in Summer and Fall 2024, I contacted all original participants by sharing information about the follow-up study. Six participants responded immediately. I sent two more emails to nonrespondents and then two invitations via text; two additional participants responded via text. In total, eight of the original 10 (80%) responded and completed follow-up interviews (Table 1).

Table 1: Participant Information

Pseudonym	Gender	Race/ Ethnicity	2019 Class Year	2018-19 Academic Program	Original Academic Program Outcome	2024 Teaching Status
Monica	Woman	White	First-Year	Science Education	Completed	Teaching high school science
Taylor	Woman	White	First-Year	Math	Changed major	Not teaching
Victoria	Woman	White	First-Year	Middle Grades Ed.: Math & Science	Transferred institutions; Changed major	Teaching middle grades math (low-performing school)
Zoe	Woman	Black	First-Year	Environmental Science & Political Science	Completed Environmental Science only	Teaching middle grades science
Jenna	Woman	White	Sophomore	Middle Grades Ed.: Math & History	Completed	Teaching middle grades math
Matilda	Woman	White & Hispanic	Junior	Chemistry	Completed	Teaching high school science

Kyle	Man	White	Junior	Technology Education	Completed	Not teaching
Felicity	Woman	American Indian	Master's	Master's degree in Education	Completed	Teaching high school math

In 2024, participants completed 1-hour virtual interviews over Zoom. Before each interview, I reviewed each participant's 2019 data to refresh my memory of their experiences and to draft participant-specific probes. I started interviews by asking participants to take a couple minutes to write down important developments in their educational and career paths since 2018-19, an informal replication of the timelining activity. I then asked participants to share what had come to mind. After, I followed a semi-structured protocol tracing chronology, asking about participants' experiences completing their degree programs and participating in the NCTFP, student teaching, job searches, career decisions, work experiences, and plans for the future. I also added individual probes based on 2019 data. For example, in Spring 2019, Felicity had already signed a contract to work at a specific school district. When she did not mention this contract in her initial recounting of the last five years, I asked about it. As it turns out, she never ended up working for the district. Finally, questions addressed participants' NCTFP service progress or loan repayment, decisions related to teaching in low-performing schools, and plans to stay in NC.

At the completion of follow-up interviews, participants received a \$75 electronic Amazon gift certificate. All interviews were video recorded and transcribed by Zoom. Within a week of each interview, I rewatched recordings to immerse myself in the data and clean all transcripts. All data were saved in the updated electronic database and added to Dedoose for analysis.

Data Analysis

In 2019, I analyzed data by reconstructing each participant's data into a sequential order, and analyzing each narrative on its own (Riessman, 2008). While restorying, I developed a list of questions for each participant to clarify details and to gather feedback related to emerging themes. Second interviews therefore served as a member checking exercise in the first wave (for narratives and findings from the initial wave, see Smith, 2019).

In 2024-25, I reviewed all study data and themes from the first wave, within-narrative themes, and themes across participant narratives. I analyzed data participant-by-participant, starting with their 2019 data followed by 2024 transcripts, making note of any educational or career decisions that deviated from participants' original goals and plans. Because participants entered the NCTFP at various points in their educational trajectories (and thus had varying NCTFP service requirements), I also mapped out participants' major educational and career events, including changing academic programs, institutional transfer, graduating, and entering new jobs (Figure 1).

To identify themes across narratives, I open coded 2024 interview data in Dedoose. Example codes included "COVID-19," "academic performance," "changed program," "partner/family," "low teacher salary," "labor market opportunities." Throughout data review and open coding, I recorded memos to note patterns in the events that led participants to change plans. This process resulted in several chronological themes, including past academic experiences that meaningfully shaped their paths; work experiences, especially among those who became teachers; and future plans, especially related to NCTFP loan repayment and service.

Positionality

Like participants, I, too, grew and changed between 2019 and 2024. I began this study as a doctoral student in North Carolina, whereas I am now a faculty member in Pennsylvania. I have never been a K-12 teacher myself, but many of my personal friends completed degrees in education, became teachers, and have since left the profession. I work in a college of education, and I have seen declining interest and enrollment in teacher preparation programs firsthand. I feel strongly about the importance of a well-educated, well-prepared, well-supported teacher workforce, and I have found it somewhat heartbreaking to hear the stories of talented people who once dreamed of becoming teachers, but who have been pushed out of the profession through unsupportive systems. Still, I went into interviews open-minded and eager to hear participant updates, especially in the interest of continuing to improve teacher support programs.

Figure 1: Major Educational and Professional Events in Participants' Lives, from 2019-2024

Figure 1. Major Educational and Professional Events in Participants' Lives, from 2017-2024														
	All Participants Entered the NCTFP	Data collection Wave 1		Start of COVID-19 Pandemic								Data collection Wave 2	Estimated Last Year of Service*	
Monica	BY1							ST, G(B)	J1(T)					2029-30
Taylor	BY1			Pr(TF)	Pr(NTF)	I(NT)		G(B)	J1(NT)	MY1 (NT)				-
Victoria	BY1	Mar	Tr, Pr(T)					ST, G(B)	J1(T)					2025-26
Zoe	BY1							ST, G(B)	J1(T)					2029-30
Jenna	BY2					ST, G(B)	J1(T)					J2(T)		2024-25
Kyle	BY3	I(NT)		ST, G(B)	J1(NT)				J2(NT)					-
Matilda	BY3			ST, G(B)	MY1(T)		J1(T)							2024-25
Felicity	MY1(T)	ST, G(M), Mar	J1(T)			TFC			J2(T), LNC					Complete
	F18	Sp19	F19	Sp20	F20	Sp21	F21	Sp22	F22	Sp23	F23	Sp24	F24	

Key:

Shaded areas reflect periods where participants no longer participated in the NCTFP, whether due to attrition (Taylor, Kyle), or service completion (Matilda)

*Assuming continual service

BY1/BY2/BY3 = Bachelor's Year 1/Year 2/Year 3 (at time of NCTFP entry)

G(B/M) = Graduated (Bachelor's/Master's)

I(NT) = Internship/Applied work experience (Non-Teaching)

J1/J2(T/NT) = Full-time Job 1/Job 2 (Teaching/Non-Teaching)

LNC = Left North Carolina

Mar = Married

MY1(T/NT) = Master's degree Year 1 (Teaching/Non-Teaching); first year indicated, only

Pr(TF/NTF) = New Academic Program (Teaching Fellows eligible and affiliated/Not Teaching Fellows eligible or affiliated)

RL = Repaid NCTFP Loans

ST = Student Teaching

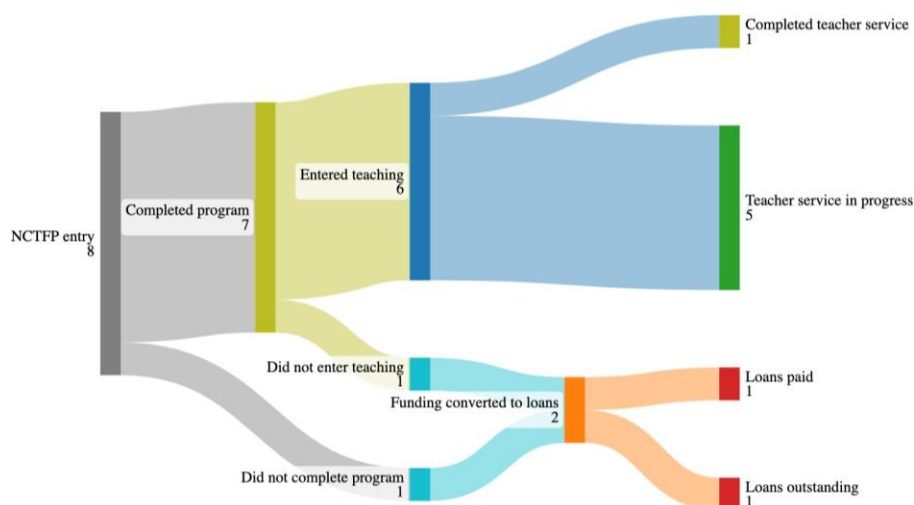
TFC = Teaching Fellows Service Complete

Tr = Transferred Institutions

FINDINGS

When this study began in 2018-19, all eight participants were newly enrolled in the NCTFP and were “fairly certain” (Matilda) or “very certain” (all others) they would complete the program’s postgraduate teaching requirements. By 2024-25, six participants were, indeed, middle or high school STEM teachers on track to relieve their loans through service. Two participants, however, never became teachers. Taylor changed majors and left the NCTFP after her sophomore year—her NCTFP loans are in repayment. Kyle completed his program but decided not to become a teacher—he has since repaid his loans. See Figure 2 for an illustration of these outcomes.

Figure 2: 2018-19 North Carolina Teaching Fellows Participant Service and Loan Outcomes in Fall 2024



Note. Visualization produced using SankeyMATIC (Bogart, n.d.).

Regardless of specific outcomes, participant educational and early career paths were rarely linear. Analysis resulted in three major themes, each with its own subthemes, that illustrate how and why participants interests and goals have changed, or may change in the future: (1) “What am I supposed to do?”: Diversions due to STEM requirements and misaligned educational structures; (2) “It’s not what I imagined”: Navigating the realities of schools and teaching; and (3) “If I could go back”: Managing forgivable loan repayment in cash and service.

“What Am I Supposed to Do?”: Diversions due to STEM Requirements and Misaligned Educational Structures

All eight participants changed their academic plans or majors at least once during their undergraduate years (Table 2). For Jenna, Kyle, Matilda, and Felicity, these changes were captured retrospectively in 2019, while participants who were first-year students in 2018-19 made changes between waves of data collection. In some cases, these changes were diversions made out of necessity. In others, changes were based on evolving interests, and structural opportunities or barriers. This theme has two subthemes.

Table 2: Evolution of Participants’ Postsecondary Academic Aspirations and Major Programs

Pseudonym	Participants’ Academic Plans and Programs
Monica	Intended special education → Science education (9-12)
Taylor	Math (with middle grades teaching licensure) → Psychology (with K-6 teaching licensure) → Psychology → Master’s degree in Applied Behavior Analysis
Victoria	Middle grades education, math and science → Elementary education (K-6; with special education licensure)
Zoe	Political Science and Environmental Science (with middle grades licensure) → Environmental Science (with middle grades licensure)
Jenna	History (with secondary teaching licensure) → Middle grades education, math and social studies
Kyle	Intended engineering major → Technology education (9-12)
Matilda	Music education → Pre-pharmacy → Chemistry (with 9-12 teaching licensure) → Master’s degree in Education
Felicity	Math education → Math (and American Indian Studies) → Master’s degree in Education

Note. Some academic program names have been slightly edited to protect participant confidentiality.

“I Can’t Pass That”: Navigating Challenging STEM Course Requirements

For Kyle, Taylor, Jenna, and Monica, required STEM courses served as a significant obstacle to enrolling in or completing the academic programs they originally aspired to.

Kyle’s story is distinct in several ways. Despite his initial certainty about becoming a teacher, Kyle had already begun to express uncertainty about this plan by the second 2019 interview. Kyle’s trepidation came from his longstanding interest in engineering; he had applied to college to study engineering but was not admitted to his institution’s engineering college. Kyle still enrolled and took pre-requisite courses

with the goal of transferring into engineering, but he struggled in advanced calculus and physics courses. As he began to consider other options, one of Kyle's professors recommended that he study technology education. Although he had "never really considered [teaching] before," Kyle applied to his institution's technology education major, and simultaneously applied to the NCTFP. Thus, for Kyle, difficulty in STEM courses was a path *into* education, even if temporarily.

At some institutions, STEM education students major in STEM subjects, whereas other institutions offer education majors with STEM concentration options, especially in middle grades education. These inconsistent and complex structures were confusing for several participants who enrolled in one program only to later learn about other options. For example, Jenna wanted to become a math teacher but was deterred by the prospect of majoring in math, leading her to enroll in college as a history major (her "second passion"). As she explained, "I like math, but if you're a secondary [education] minor, you major in math. I would have to take up to Calculus IV. I was like, 'I can't pass that.'" However, Jenna soon learned about her institution's middle grades education program, which allowed her to study education with a concentration in math. Jenna changed majors and applied to the NCTFP, grateful for this option.

Monica also changed trajectories; she originally planned to study special education but chose science education instead once she learned that her institution did not offer a bachelor's program in special education. Monica struggled in science education, failing the first levels of chemistry and physics. As Monica's program also required advanced chemistry and physics, she felt stuck: "I was flipping out about it. I'm like, 'what am I supposed to do?' I was like, 'I'm not going to be able to pass these, and I'm not going to be able to get this degree.'" Monica retook both classes but never ended up taking the more advanced versions. At the time, Monica's program was reconsidering its curriculum, and she received permission to substitute these requirements with courses better aligned with environmental science, the subject she hoped to teach.

Taylor also had trouble completing STEM courses. When she enrolled in college, Taylor had hoped to become a middle school math teacher; at her institution, this meant completing a math major. However, Taylor struggled with Calculus III, mathematical reasoning, and linear algebra, feeling "extremely frustrated" that she had to take these courses: "I just want to teach middle schoolers fractions and simple equations. I didn't really feel like I needed calculus and linear algebra." In her sophomore year, Taylor switched majors from math to psychology with a teaching licensure in K-6, as the option to teach sixth grade math kept her eligible for the NCTFP.

Notably, although STEM courses were an obstacle for some, others excelled in these fields. Felicity was a stand-out math student who received regular encouragement to pursue applied math; she even changed majors from math education to math as an undergraduate student. By the end of her bachelor's program, however, Felicity had re-committed to pursuing a teaching career. Zoe and Matilda also succeeded in STEM majors in environmental science and chemistry, respectively.

“I’m Not Teaching Third Grade”: Misalignments Between Academic Preparation, Clinical Placements, and Teaching Jobs

Beyond STEM courses, several participants also encountered other misalignments between postsecondary requirements, licensure plans, clinical placements, actual school structures, and job opportunities. While misalignments were generally inconvenient, for Taylor they were frustrating enough to leave education, and the NCTFP, for good.

As described above, Taylor originally enrolled in college as a math major before switching to psychology with a K-6 licensure. The inclusion of sixth grade within this licensure area kept Taylor eligible for the NCTFP; she therefore planned to teach sixth grade math. Yet, the primary focus of the K-6 licensure is elementary education. In her junior year, Taylor received her clinical assignment, a classroom where she was expected to stay for two years and complete student teaching. Unfortunately, the placement was in an elementary school. As she recounted: “They announced that I was going to be in a second-grade classroom, and I was like, ‘Absolutely not. I do not want that. I don’t want to be teaching elementary school at all.’” This was the last straw for Taylor; she dropped the K-6 licensure and left the NCTFP.

Victoria had a similar experience. Unlike Taylor, Victoria was originally interested in teaching elementary school but instead chose middle grades education in math and science to become eligible for the NCTFP. However, Victoria got married after her first year of college and transferred institutions to live with her husband. The coordinator at Victoria’s new institution encouraged her to pursue a K-6 licensure, given her interests. As Victoria explained, “[the K-6 licensure] still allowed me to get that degree that I wanted, instead of just settling for a degree that I felt like I ‘had to’ [*air quotes*] get.” Although Taylor and Victoria attended different institutions, Victoria was also placed in an elementary classroom for student teaching, a “frustrating” arrangement:

I kind of expressed to the school...“Hey, I’m planning to teach sixth grade...Is there any way I can be put in a sixth grade teaching placement?” and they were like “No.” That was a little frustrating ...I went through my student teaching and I was like, “I’m preparing myself for something that I’m not going to be teaching. I’m not teaching third grade...I can’t if I want to pay back this scholarship [NCTFP loans].”

For Taylor, misaligned goals and preparation structures led to leaving education. For Victoria, this same misalignment was a barrier in receiving appropriate preparation to teach sixth grade.

While lower stakes, another misalignment was evident among participants in science education. In North Carolina, secondary science education students can earn a comprehensive licensure, spanning subject areas. Yet, participants’ programs of study were often more focused, creating a gap between participant expertise and subject area assignments. For example, Matilda’s degree and student teaching are in chemistry, but she now teaches environmental science. For Matilda, this misalignment was due to job opportunity and priorities; she applied to a job opening in a desirable district, and the subject happened to be outside of her original training.

Ultimately this worked out; Matilda enjoys teaching ninth grade and she believes her chemistry degree prepared her well for teaching environmental science (and biology, which she has recently begun teaching as well). However, Matilda suspects that the opposite would be more difficult, that teachers trained in earth science or biology might struggle to teach chemistry. Although Monica and Zoe are both teaching in their preferred subject areas (also environmental science), this was also an important consideration, and limitation, within their job searches.

“It’s Not What I Imagined”: Navigating the Uncertainties and Realities of Schools and Teaching

Second, participants who became student teachers and teachers experienced significant gaps between their expectations of what teaching would be like, and the daily realities of the work. These gaps led to changing career plans and goals, including larger questions about the sustainability of the profession, and participants’ expected longevity in their roles. Differences between expectations and realities were exacerbated by the COVID-19 pandemic, participants’ initial experiences on the job, and related financial stress. This theme includes three subthemes.

“Dealing with the Unknown”: Teaching During COVID-19

In 2024 interviews, all participants reflected on the ways that the COVID-19 pandemic impacted their educational and professional experiences. Those who were student teaching or teaching during the pandemic’s start were especially affected. At the time, participants navigated unprecedented conditions in education and in the world—experiences that introduced new questions about the future of education and teaching, and participants’ fit in the profession.

For Kyle, COVID-19 and related questions about the future “derailed everything.” In Spring 2020, Kyle was student teaching in an engineering high school class. Student teaching itself was challenging, especially the intensive schedule and Kyle’s difficulty establishing himself as an authority figure, as he himself was “freshly 21.” However, everything changed when the pandemic began. For Kyle—and others—the beginning of the pandemic was “scary,” especially being in a school, where germs are known to spread quickly. Then, when Kyle’s school moved online, it wasn’t the experience he imagined. For Kyle, COVID-19 introduced many new uncertainties:

At the beginning of the semester for my senior year...I felt like, “I’ll give [teaching] a shot, see where it takes me.” And I started enjoying it. I mean, it did get tiresome, you know, 12-hour days, 5 days a week...It definitely started wearing on me. And then the whole COVID-19 situation just kind of escalated that, and the uncertainty around it, of, like, “Will this ever be the same again? Are we ever going to be back in normal settings?”

For Kyle, COVID-19 “kind of just changed everything”:

It was like, “Okay. I don’t think I’m going to have the security that I thought I would have with teaching previously because of what’s going on. So how can I

make this work?” And turning towards engineering was just kind of the best solution.

Kyle completed student teaching and his degree, but only applied for jobs in engineering.

For all participants, the pandemic introduced new challenges, especially once schools moved from in-person to virtual instruction. Felicity was a first-year teacher in Spring 2020. When her school went virtual, she was expected to teach via Zoom and Canvas, two platforms she had never used before. Felicity’s school-provided laptop was also sorely out of date, resulting in regular technological issues. Technology was also a challenge for Matilda, who was student teaching in Spring 2020, as many students in her school did not have access to computers, cameras, and internet. Felicity, Matilda, Kyle, and Jenna (who had a clinical placement in Spring 2020) all described the difficulties of teaching STEM subjects online, especially hands-on subjects like chemistry and engineering, and teaching students with needs incompatible with online instruction, such as English language learners who rely heavily on visual cues. Participants saw low student attendance and engagement across online and mixed modality environments, which introduced new difficulties and affected morale.

Unfortunately, participants navigated this period with little support. Despite impossible conditions, Felicity felt as though she had failed her students: “I was like, ‘There’s no way on Zoom, over Canvas, I’ve given you everything you need to be successful.’” As a first-year teacher who had received little help or feedback, the experience was emotionally difficult. Felicity shared:

I felt very unsupported. Very isolated as well, because I was working in my house. I was not in a very good headspace at the time. I don’t think a lot of teachers were, but I just felt very overwhelmed. I cried a lot. That might be too much information. But I did. I cried a lot just because I just didn’t know. I just didn’t know what I was doing.

As a student teacher, Matilda also felt isolated and unsupported during COVID-19. The online environment made it difficult for Matilda to build relationships within her school, which exacerbated already-challenging conditions. With the help of her roommate and her mom, who reminded Matilda that things would eventually go back in person, Matilda tried to reassure herself: “[It] was really helpful for me to remember like, ‘Yes, you hate this. You hate it right now. But all of the things that bring you joy are the things you’re not getting.’...I had to keep reminding myself that it was [eventually] going to be different.”

Unfortunately, Matilda and others taking education courses in Spring 2020 also received little guidance and support from faculty. Course content focused on managing in-person classes, thus feeling dated and irrelevant. Matilda recalled asking her professors how to engage online students who she could not see or hear and feeling frustrated when they could not offer helpful suggestions. Matilda describes bonding with classmates about how disconnected the faculty were from the realities of K-12 teaching at the time: “We kind of jokingly were like, ‘I don’t really think they know what they’re into here.’ None of us had a handle on it.” Jenna had a similar experience, with her faculty acknowledging the gap: “Even all of my professors at

the time were saying, ‘If y’all can survive teaching during this time, you can survive anything.’”

“I Was in No Way, Shape, or Form Prepared”: Heavy Workloads and Difficult Conditions

The second subtheme refers to the negative surprises participants experienced once they became full-time teachers. In some cases, these experiences were intrinsically intertwined with COVID-19 and its lingering effects. Across the sample, participants had heavy workloads as new teachers and were frequently asked to teach larger classes or additional subjects alongside growing administrative responsibilities and shrinking supports. In general, the daily realities of teaching were different from what participants imagined when they chose the profession.

Monica was one participant who experienced a significant disconnect between her expectations and the realities of the work. She described:

There are some parts of [teaching] that, like, suck, compared to what you think it's going to be, frankly. It's kind of like when you're younger, and you tell someone you want to be a teacher and your teacher responds like, “Oh, don't become a teacher,” and you're kind of like, “I'm not going to let you say that to me” ... And then, when you're an adult and you are a teacher, you're like, “Oh, this is what they were trying to warn me about.”

Monica attributed some challenges to “generational changes” in student behavior, including “things that would have never happened when I was going to school.” For Monica, these challenges led to regular questions about how long she could stay in the career:

With more experience, I'm getting more comfortable. But at first, I was like, “This is terrible. I'm going to quit.” I thought I was going to quit literally like two months in... Then, after my first year, I was like, “I'm going to quit.” And then, after this second year, I don't know. I started taking anti-anxiety medication, that helped a lot. Because my blood pressure is so high every day, and my anxiety was so high every day... I'm learning to love it now. But, for a solid year, I hated it. Like hated it, a lot, and it definitely was worse than what I thought it was going to be.

Unfortunately, Monica was not alone; most participants had stressful entry experiences. Although some parts of the job became easier, growing workloads added new sources of stress.

As a first-year teacher in Spring 2020, Felicity's story perhaps best illustrates the lingering effects of the pandemic era. Although Felicity's first year was disrupted by COVID-19, her second and third years were even more difficult due to school changes. In addition to the health pandemic, 2020-21 was a time of great social turmoil and racial reckoning in the U.S. (e.g., Dixon & Dundes, 2020; Shullman, 2020). At Felicity's school, a racially charged incident occurred between students, and the principal was “pushed out” after her first year. By her second year, a new principal was hired and came in “guns blazing,” wanting to change “all the ways that the school ran,” thus creating additional turnover. Felicity was already teaching three

hybrid pre-calculus sections with 36 students each, but her class enrollments were increased to 70 students each when other teachers left, with almost no communication around these changes.

Felicity's school resumed in-person instruction by her third year, which she thought would help. However, she was now required to teach "social emotional" homeroom lessons. She described:

These lessons ranged from religious events to social things that were happening, cultural things that were happening. We covered Supreme Court cases. We covered very difficult cultural topics that I felt, as a math teacher, I was in no way, shape, or form prepared to teach or had the knowledge to teach. And some things I just didn't like – religious things that I was, like, "Well, I don't practice this religion. I don't know anything about this religion." It didn't feel like it was my place to teach some of these things. We had a lot of very heated staff meetings that year a lot of the teachers were not happy about having to do all of these things, especially coming right off of COVID, and having to already fill in some of the educational gaps that students had missed.

Despite "loving her first year," Felicity began applying for new jobs. As she had completed her required NCTFP service by this point, Felicity's options were flexible, and she ended up taking a new teaching job out of state.

Difficult work conditions were also stressful for Victoria, the only participant teaching in a low-performing school. Victoria chose a low-performing school for faster loan relief, but felt underprepared for teaching in this environment, especially student "behavior issues" and the wide spectrum of student skill levels within each class. Administrators at Victoria's school were also "not very supportive of teachers," leading to "a lot of drama." Victoria's workload has also grown:

The school has a plethora of new things that they've asked us to do... We need to assign working lunch... we need to do minors and majors. There's like a million things that they've added onto our plates this year, and it's taking up a lot of time... I have to bring a lot of the work home with me.

While Victoria has no immediate plans to leave the teaching profession, her heavy workload and time away from her family raises concern. She shared:

I've got two young kids. I'm pregnant with my third ... I get home at 5:30 because I'm a cheer coach, and I haven't seen my kids all day, and I still have work to do... I hate that for my family... [my kids] never get to spend time with me, because I'm doing work. I'm always doing work... If my dad stays until 5:30 when he's supposed to leave at 4, he gets paid extra. I don't get paid extra. I'm just doing it out of the "kindness of my heart" [*air quotes*]. Like, it sucks! It really sucks.

Like Victoria, other participants were also dissatisfied with their school administrators, difficult student (and parent) behaviors, and growing workloads with no additional support. Unlike Victoria, Zoe is teaching at a high-income school, where some of the biggest challenges are student entitlement and parent expectations. Zoe even feels uniquely supported by her school administration and resources. Despite these positive conditions, Zoe's workload is also growing in concerning ways. Although she was hired to teach science, teachers in Zoe's school were recently

asked to begin teaching a second subject; for Zoe, it is social studies. Zoe is frustrated by this development, describing it as a “huge disservice to the children.” Although Zoe also feels committed to teaching, she has been experiencing feelings of burnout and is eager for a break.

“I Cannot Afford Life Doing this Job”: Job Choice and Sacrifices to Make Ends Meet

Finally, another disconnect between participants’ expectations of teaching and the realities of the job has been participants’ difficulty paying bills and affording daily necessities on a teacher’s salary. While teaching was stressful in itself, financial strain led some participants to make major sacrifices, including relocating or limiting their job searches to specific counties or districts, living with roommates or partners, and working additional jobs.

Although NC has a statewide salary schedule for teachers, some counties and districts offer additional supplements or benefits (e.g., additional pay for a master’s degree, a benefit the state no longer offers). Thus, participants were drawn to better paying schools, with some explicitly limiting their search to these opportunities. As Monica described, “This sounds kind of silly, but I was looking [for jobs exclusively] in counties that paid the most in North Carolina.”

Zoe, Matilda, and Felicity all made similar decisions. During her master’s program, Felicity had signed a job contract with a local school district, but when the district failed to communicate confirmation of her position, Felicity grew increasingly worried and applied to other jobs. She described:

I kept emailing and kept emailing and kept emailing [the district]. And they were like, “We’ll eventually get to you.” ...It made me very nervous that I was waiting...I ended up taking the job in [another district] ... I signed my contract on my honeymoon... I just felt like I really need to secure a job, because I have bills to pay. I’m getting married. I have loans. I need to pay off that kind of stuff.

While Felicity only had about \$6,000 in student loans outside of the NCTFP loans, her husband has much more student debt. Instead of the initial district she had signed with, Felicity took a different job with one of the highest-paying districts in the state. When Felicity eventually left this job, she took a position out of state, despite the fact that she had never originally planned to leave NC. As she shared, “This sounds terrible, but [school in new state] was going to pay me significantly more.... I got master’s pay that North Carolina didn’t honor. It was a significant pay raise.”

Other participants’ experiences were also shaped by money, in a way that was hard to imagine when they first chose the profession (see Zoe’s quotes at the front of the manuscript). Indeed, in 2019, Monica, Zoe, Felicity, Jenna, Matilda, and Victoria all described the negative messages they had received about teacher pay, especially in NC, and related discouragement they had received from teaching, often from their own teachers and family members. Still, it was hard for participants to imagine their lives and financial needs long after college.

Several participants tried to work second jobs while teaching but found this unsustainable. For example, Zoe began working at a local restaurant but stopped:

“Health-wise, my body couldn't take it. My mind couldn't take it.” Notably, parents from Zoe's school patronized the restaurant, and sometimes would “just give [her] cash.” She explained:

The parents are aware, like, “You taught my kid all year, and you do not make enough money, so I literally am having to pay you out of pocket for my child's education because you did good, and I want you to have something.”

Zoe and Jenna both described difficulty paying rent and affording “basic necessities” on their salaries. Like Zoe, Jenna also began working a second job but found the schedule grueling and unsustainable. Recently, Jenna has relocated and moved in with her boyfriend, which will allow her to split living costs. The prospect of sharing rent has left Jenna feeling more confident about her financial situation and ability to meet her expenses. She explained:

Having a dual income will definitely help.... I think [the pay] is on the back of every teacher's mind. Obviously the pay doesn't represent what we do in the classroom every day. But I try not to worry about that a whole lot, just because teaching really is my dream job. And I can't imagine myself doing anything else. Monica shared a similar experience, also finding that living alone was simply not affordable on a teacher's salary. Recently, Monica moved in with her brother to share rent costs.

Across the sample, the main solutions to managing teacher salaries were sharing costs with roommates and partners and working additional jobs. While it was difficult to manage second jobs while teaching, several participants took on additional paid roles within their schools and worked summers. Two participants who have had a comparatively easier time paying their bills are Matilda, who comes from a high-income family and had no additional debt, who works in a high-paying district, and who works several supplementary roles within her school; and Victoria, who feels secure due to her husband's military benefits. Notably, more than one participant joked about “marrying rich” as a solution to managing low teacher salaries. Zoe even observed that most of her colleagues are able to afford teaching because they have either “been teaching for so long” that they earn sufficient salaries, or they are married to “husbands making \$300,000 a year.”

“If I Could Go Back”: Managing Forgivable Loan Repayment in Cash and Service

Finally, across interviews and embedded in the themes above, it was clear that the NCTFP forgivable loans have shaped participants' early career decisions and paths, including their job searches, commitment to teaching, and their plans for the future. As of 2024, two participants have repaid their loans, whether via service (Felicity), or in cash (Kyle). It is notable that Felicity and Kyle had received one and two years of NCTFP loans, respectively; thus, their NCTFP loans and service requirements were among the lowest in the sample.

When asked whether they would do the NCTFP again, all eight participants said yes. Kyle and Taylor specifically lamented the forgivable loan component of the program—especially due to the NCTFP loans' “extremely high interest rates”

(Taylor)—but both participants would have taken out other loans anyways and, at the time, both truly believed they would become teachers. The other six participants agreed, describing how the program and the loans were essential for accessing and completing college, and becoming teachers. This theme has two subthemes to illustrate the disparate paths participants have taken to pay back their loans.

“I Didn’t Really Think I Would Ever Be Paying Back Those Loans”: Paying Loans in Cash

Although Kyle and Taylor had once felt certain that they would become teachers and repay their NCTFP loans through service, both ended up choosing other paths.

Coupled with the uncertainty of the pandemic, the prospect of making more money in another industry helped Kyle choose not to teach, and to justify his decision financially. Including the NCTFP loans, Kyle estimated that he had borrowed about \$36,000 in total for his bachelor’s program. For Kyle, COVID-19 was “lucky but unlucky” in the sense that federal student loan interest rates were reduced to 0% from March 2020 until August 2023 (although he says that the NCTFP loans still accrued interest during this time). The relief allowed Kyle to “save up enough” to repay the NCTFP loans, which he prioritized due to high interest rates, which he estimates were “closer to 9%,” rather than “around 4%” like his federal student loans.

Financially, Kyle is glad that he chose not to teach. As he shared:

I hate to make the comparison, but I went into engineering making more than [my student teaching mentor] had been making for 17 years of teaching. That was kind of the point where I was like, “Okay. I don’t think I can seriously consider teaching anymore”

Although he regrets taking out the loans, Kyle was glad he participated in the NCTFP, calling the program “invaluable.” He could also see himself returning to teaching at the end of his career, after making enough money, or “marrying rich” (although he joked, “prospects are low right now”).

As of 2024-25, Taylor is the only other participant who plans to pay her NCTFP loans back in cash. After Taylor left the NCTFP, she took out federal loans to pay for her subsequent years of college and her master’s program. Although she is currently taking out new loans, Taylor is also actively paying off the NCTFP loans due to the “extremely high” interest rates. I asked Taylor if she knew the interest rates were higher on the NCTFP loans when she took them out. She did not:

I didn’t know. When I signed up for it and agreed to be an NC Teaching Fellow, I thought nothing would change my mind...I didn’t really think I would ever be paying back those loans. I’m sure they told us about the interest rate somewhere, but I was also 17 and didn’t really know what it meant.

When asked whether she would still participate in the NCTFP if she could do it all again, Taylor expressed no regrets, describing that she knew her private institution was expensive, and she had expected to take out loans. Currently, Taylor is working as a registered behavior technician and pursuing a master’s degree in Applied

Behavior Analysis. Once she completes her credentials, Taylor expects “a significant pay increase,” which will reduce financial stress.

“This Large Sum of Money Hanging Over our Heads”: Paying in Service and Plans for the Future

The remaining participants have repaid their forgivable loans through service (Felicity) or are on track to do so. Matilda is in her final year of required service (four years), and Jenna has one more year left (four years). Victoria, Zoe, and Monica all received loans for four years and thus owed eight years of service. Victoria chose a job in a low-performing school, thus halving her service to four years; she has one year left. Zoe and Monica both have five years remaining.

A new feature of the 2018-19 NCTFP program was the opportunity for participants to halve their service by teaching at a low-performing school. Among participants, only Victoria chose this incentive. Overall, Victoria felt underprepared for teaching in a low-performing school, something that was quickly evident during job interviews. At one school, for example, Victoria was asked about her experience with “aggressive students.” Victoria reflected:

I was like, “What am I getting myself into?” ... “Is this a good idea? Am I going to be safe?” ... Because I had no information. And the schools that I grew up in were not low performing. So, I didn't even know what that looked like.... how it looked for teachers, how it looked for students. I had no information.

Still, Victoria accepted a job at a low-performing school. While the experience has been difficult (as described above) she has remained committed to the job. No other participants prioritized or even seemed to consider jobs in low-performing schools.

Like Victoria, Jenna and Matilda have just one year of service left. Now that she has a more affordable living situation, Jenna feels optimistic about the future, and committed to staying in teaching long-term. Matilda is less certain; while she is satisfied with her current compensation (around \$60,000, including a salary benefit for her master’s degree, stipends for additional roles within the school, and summer work), Matilda is concerned for the long term:

I'm definitely going to try and stick around one more year in teaching. I'm not 100% sure after that... Partly because, between 2019 and now, I've gotten engaged. I'm planning a wedding... I know that there will eventually come a point where it's not necessarily as financially sustainable. The NC teacher salary schedule, you have a pretty steady increase until about 10 years. And then at 10 years, it kind of starts to fizzle out ...Once you have 10 years of experience in a field, you expect to be making a little bit more.

Although Matilda completed her bachelor’s and master’s degree without additional loans, her fiancé has student debt. Interestingly, Matilda’s fiancé is considering changing careers *into* education to become a history teacher. The couple has lamented that, as a history educator, he is ineligible for the NCTFP. When asked what she would do if she left teaching, Matilda is unsure.

For Zoe and Monica, loan relief is still five years away. Both participants talk about the loans as a powerful incentive for staying in teaching despite the challenges of the profession. Although Zoe feels relatively well-supported at her school, she is also ready for a break. As she shared:

I don't want to stay in [teaching] for 30-something years and be like, "I hate my life and my job every single day," because it reflects in the classroom. It reflects on the kids. So, I'm like, "If I leave and come back, I'll remember how much I love it. Because absence makes the heart grow fonder" *[laughs]*.

When asked what she would do instead, Zoe is also unsure. Given her bachelor's degree in environmental science, Zoe wonders about careers in science. Even if she does take a break, Zoe is confident she will complete her service, framing this commitment as a source of motivation:

It's a nice requirement, to a degree, to see if you like something....It gives me a timeline to go by....I am someone who traditionally would quit things, be like, "I don't like it, I'm going to dip out now." But it's nice to have something kind of holding me to trying it out.

Monica shared a similar sentiment; teaching has been difficult, and she has been tempted to "run for the hills." However, every year she "feels a bit better about it." She shared:

A lot of it is this large sum of money hanging over our heads...Yeah, you can leave [teaching] and pay back the money, but a lot of us are in because we didn't have the money in the first place... Like, what am I going to do if I have to pay back all this money?

DISCUSSION

In 2018-19, participants were undergraduate and graduate students newly accepted to the NC Teaching Fellows program, a storied NC teacher recruitment and preparation program. Upon graduation, all participants planned to teach middle or high school STEM education. Approximately six years later, six of eight participants have actualized this dream, although their paths were rarely linear. Two participants never became teachers. This study extends existing research through its attention to a forgivable loan program, and its longitudinal narrative case study design, which enabled in-depth exploration of participants' lived experiences within a complex policy context.

In this study, I used time-inconsistent preferences as a conceptual framework, expecting participants' educational and career journeys to have evolved over time. When designing this study, it had seemed likely that at least some participants may not become teachers, given outcomes from the TEACH Grant (Barkowski et al., 2018), reports from the original NCTFP (Cohen, 2015; NCOSA, 2003), and based on my own lived experiences. Indeed, despite my preparation for each interview, interviews often went down unexpected paths. While I did not include prompts related to COVID-19, all participants discussed how COVID-19 disrupted their college, clinical, or teaching experiences. Participants' personal lives had also changed in significant ways, which was not something I had considered in advance. Whereas the

first wave of data collection included substantial discussion related to the support (or lack thereof) participants received from authority figures such as parents and teachers, these same figures were mostly absent from 2024 narratives. Instead, participants now considered their careers in the context of their romantic partners and children, or their plans for family building.

The findings follow a chronological order, starting with the ways that participants' postsecondary experiences shaped their paths and plans. Notably, all participants in this sample had changed academic plans or majors, often due to structural limitations and opportunities (e.g., Monica wanting to study special education, but choosing science education when special education was not available, or Victoria wanting to study elementary education, but initially choosing middle grades STEM education to participate in the NCTFP).

For most participants, commitment to the NCTFP constrained academic (and professional) choice sets, even in the face of other obstacles and life events. In some ways, participants appreciated these restrictions, as they served as a simplifying strategy in decision-making (another behavioral economics concept; Kahneman, 2003). For example, when transferring institutions after her marriage, Victoria picked the closest NCTFP partner institution, unwilling to give up her "scholarship." Overall, participants were highly committed to the NCTFP and those who left only did so when the tension between program requirements and their lived experiences became untenable (Taylor) or began to feel functionally infeasible, thus irrational (Kyle).

As students, a particular frustration among participants were misalignments between postsecondary structures and the realities of teaching jobs and school structures. Several participants were frustrated with the prospect and experience of completing STEM majors and/or advanced courses, especially when participants would not be teaching this content in middle and high schools. Similarly, misaligned clinical placements for Taylor and Victoria were highly frustrating—enough for Taylor to leave the NCTFP. Thus, time-inconsistent preferences were sometimes a result of changing personal conditions and preferences, but were sometimes a result of real obstacles and unsupportive systems and environments.

An important idea related to time-inconsistent preferences is that people choose actions that they think will make them happiest, but these forecasts are often incorrect (Fudenberg, 2006). As findings show, affective disconnects over time are not just the product of misunderstanding one's future self but can be influenced by external conditions and updated lived realities. In 2019, none of us could have predicted the COVID-19 pandemic and its short- and long-term effects on schools and teaching. Although Kyle was the only participant to leave teaching due—at least in part—to COVID-19-related conditions, he was certainly not alone. There was substantial teacher turnover during the pandemic (Bacher-Hicks et al., 2023), with teachers reporting high stress and a lack of support (Devers et al., 2024). Indeed, these trends were evident among participants' accounts of the deep emotional toll of teaching online during this time with very little support. As was quoted, everything that had led Matilda to become a teacher in the first place had changed or was gone, even if temporarily. Thus, while some participant preferences changed over time, the profession itself had also changed in real ways.

Unfortunately, the realities of teaching also led many participants to update their perceptions of the profession and question their futures in the field. While most participants had envisioned being career-long teachers in 2019, there was far less certainty about these plans in 2024. Participants who were teaching remained confident in their ability to complete their NCTFP service commitments, but were not sure whether they would stay in these roles long-term. As findings illustrate, participants' jobs were difficult, stressful, and, for some, financially untenable. While all participants chose teaching aware that teacher salaries are generally low, the realities of earning a teacher's salary were more challenging than expected. Suddenly, the warnings that several participants had received from their own teachers about the profession rang true.

Finally, the third theme shows how participants considered and weighed their NCTFP service and loan commitments when considering their current and future career paths. Financial dynamics limited choice sets, as did the NCTFP—participants sought NC secondary STEM teaching jobs that would make them eligible for loan relief, and that would also earn them the most money. These goals led most participants away from high-needs (and low-performing) schools, thus repeating a shortcoming of the original NCTFP (Cohen, 2015). Interestingly, despite the many challenges participants faced in teaching (or in trying to become teachers), participants still generally agreed that they would have followed the same paths and would still participate in the NCTFP if they could do it all over again.

IMPLICATIONS FOR PRACTICE AND POLICY

As a rare qualitative inquiry into participant experiences in a forgivable loan program, this study offers a number of implications for practice and policy. First, it is worth noting that the changes that NC has already made to the NCTFP are promising. Additional partner institutions expand Fellows' choice sets, especially if unexpected life events or changing preferences lead to institutional transfer. Reduced service requirements (despite higher loans) reduce postgraduate burdens and the temporal mismatches between program costs and benefits. Further, the addition of elementary education as a high-needs subject area is also helpful to expanding options, especially for Fellows who may be deciding between elementary and middle grades education, or those who encounter difficulties on other paths, such as those in secondary STEM education.

Still, findings illustrate other possibilities. For one, institutions should carefully consider curricular requirements, especially in STEM education, and clinical assignments. Teacher experience and training, including licensure and subject-specific certification, are associated with teacher quality (Clotfelter et al., 2010) but disconnected requirements may deter some students from STEM education, perhaps unnecessarily. Even between data waves, this seemed to be an active consideration at one institution, as mentioned by Monica. Ensuring alignment between clinical placements is also an important area for improvement, especially for students pursuing K-6 licensure who plan to teach sixth grade. Misalignments between student

teaching assignments and students' career interests results in a disservice to teachers and students alike.

Through the eyes of the NCTFP, six of eight participants could be considered "success stories," especially through quantitative metrics. However, participants' narratives reflect more complicated realities, and their long-term outcomes remain to be seen. While six participants are indeed following the paths policymakers hoped to see, real-time qualitative data show that they are also finding these experiences unsustainable. Even those who remain highly committed to the profession are having difficulty making the career work within their lives, feeling almost forced out of the profession they once aspired to and loved. Thus, even if the NCTFP is effectively recruiting students into teaching, or into high-needs subject areas (and low-performing schools), participants' experiences in the profession raise important questions about the sustainability of these early career paths and outcomes. From participant narratives, it is clear that bigger, state- and profession-wide changes are needed to effectively recruit talented students into teaching, and to retain the talent that is recruited, especially higher salaries, master's pay for teachers, and greater supports for teachers in schools. For low-performing schools specifically, ensuring appropriate clinical preparation and support structures for new teachers may be uniquely essential.

In all, forgivable loan programs directly address two major challenges in teacher recruitment and retention: high student loan debt among teachers, and low teacher pay (Allegretto, 2023; García et al., 2023). At the same time, forgivable loan programs are designed with a temporal mismatch of proximal benefits and distal costs. Most participants *committed to the* NCTFP early in their postsecondary trajectories, often with little firsthand information about what teaching would be like (and with no ability to predict changing conditions). Since the relaunch, 397 Fellows have completed their degree programs or licensure, while 96 withdrew from their programs and 13 left their institutions or had other outcomes (UNC System, 2026). Of the 397, 324 (81.6%) are teaching in NC public schools, 78 (24%) of whom are teaching at low-performing schools. Sixty-two of the 397 (15.6%) are repaying/have repaid their loans in cash, and 4% are in deferment/grace period or "other" status (UNC System, 2026). Given these early outcomes, policymakers need to consider the reality of participants changing academic and career paths, creating policies to be supportive, and not punitive. One of the most harmful program components is the high interest rates on NCTFP loans, making these loans much more expensive when participants' plans to teach were not actualized. Even more importantly, it is likely that greater investment into the state's teacher workforce could reduce attrition. Understanding participant lived experiences provides critical context to quantitative data, and more qualitative research is needed as it relates to understanding forgivable loan programs like the NCTFP.

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