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Examining the relationship between  
second-year teach for America teachers'  
support networks and their  
decision-making processes for career  
planning following their two-year commitments

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BOSTON UNIVERSITY  
WHEELLOCK COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

Dissertation

**EXAMINING THE RELATIONSHIP BETWEEN SECOND-YEAR  
TEACH FOR AMERICA TEACHERS' SUPPORT NETWORKS AND  
THEIR DECISION-MAKING PROCESSES FOR CAREER PLANNING  
FOLLOWING THEIR TWO-YEAR COMMITMENTS**

by

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Submitted in partial fulfillment of the  
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**ABSTRACT**

Teacher attrition is problematic in schools serving marginalized populations. Teacher attrition rates are 50% higher in Title I schools than in non-Title I schools (Carver-Thomas & Darling-Hammond, 2017). Furthermore, attrition among teachers whose main teaching assignments are in mathematics and science is 70% higher in Title I schools as compared to mathematics and science teachers in non-Title I schools.

This study investigates mathematics and science teachers who enter the profession through Teach for America (TFA), which places thousands of teachers in high-needs schools for a two-year commitment. While existing research on TFA literature has investigated the final decisions made by TFA teachers regarding their post-commitment plans, the process by which the teachers develop their post-commitment plans throughout their first two years in teaching, and the extent to which their plans change throughout these years is unknown, as is the role of TFA teachers' support networks in this decision-making process.

Focusing on the Massachusetts cohort that began teaching in the 2018–2019

school year, this study explores how ten TFA teachers developed, maintained, and used support networks using three semi-structured interviews with the teachers during their second year as teachers. I also develop a model for the teachers' decision-making processes regarding their intended plans and the role of the teachers' support networks in these processes. Finally, implications of this deepened understanding of the teachers' decision-making process on teacher education programs, TFA, the schools/districts where the teachers are placed, and on future research on teacher retention are explored.

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## Chapter 1

### Statement of the Problem

Research has long shown that marginalized students (based on either at race/ethnicity or socioeconomic status) are more likely to have low quality teachers, as measured by degrees, experience, and advanced credentials, than more advantaged students (Goldhaber et al., 2018). This gap in teacher quality is a persistent feature of public schools, which contributes to the well-documented achievement gap (Goldhaber et al., 2018). Teacher attrition is considered an issue in education generally, but it is the patterns of attrition that are especially problematic, as schools that need experienced teachers the most (i.e., those who serve low-income, minority students) are the ones that are affected by teacher attrition the most (Alliance for Excellent Education, 2008; Borman, & Dowling, 2008; Boyd et al., 2005; Clotfelter et al., 2007, Goldhaber et al., 2007; Rice, 2010).

The attrition rate in Title I<sup>1</sup> schools is 50% higher than in non-Title I schools (16% per year compared to 11% per year) (Carver-Thomas & Darling-Hammond, 2017). Although many teachers who leave their schools may stay within the teaching profession (i.e., moving to other schools), teachers tend to leave schools that enroll lower-income students and enter schools with higher-income students (Goldhaber et al., 2011; Hanushek et al., 2004). Teachers in disadvantaged schools also tend to switch schools at higher rates than those at advantaged schools, seeking out better school contexts

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<sup>1</sup> To be eligible for federal Title I funding, a school must serve a population that has a minimum of 40% of students coming from low-income households.

(Goldhaber et al., 2011). Furthermore, it is particularly difficult to recruit and retain mathematics teachers (Guarino et al., 2006; Hamdan, 2010), who are 37% more likely to leave their schools than elementary school teachers (Carver-Thomas & Darling-Hammond, 2017). While attrition in mathematics is not significantly higher than other subjects in general, mathematics and science teachers in Title I schools turn over at rates that are 70% higher than mathematics and science teachers in non-Title I schools, and both subjects are considered areas of teacher shortages in the United States (Carver-Thomas & Darling-Hammond, 2017; U.S. Department of Education, 2021).

In a study investigating reasons that urban mathematics teachers stayed at their schools, Hamdan (2010) found, through interviews with urban mathematics teachers, that administrative support was ranked infrequently described as a factor that led to them staying at their schools. As Hamdan pointed out, this finding is consistent with existing literature on teacher retention which identified low administrative support as a factor leading to teacher attrition. Carver-Thomas & Darling-Hammond (2017) attributed the higher rates of turnover for mathematics and science teachers to opportunities for better-compensated occupations outside of teaching, and a lack of teacher preparation. Carver-Thomas and Darling-Hammond pointed out that a greater proportion of mathematics and science teachers in schools that primarily serve students of color entered the profession through alternative pathways (who often have accelerated programs with fewer courses than their traditionally-trained counterparts) when compared to teachers who entered the profession through traditional program. For these reasons, it is important to understand the support available to teachers that work with students of color who enter the profession

through alternative pathways. Their claim with respect to STEM teachers' opportunities outside of teaching is also supported by other research, which found that even though K–12 public school STEM teachers earn more on average than their non-STEM counterparts, they still earn more on average outside of teaching compared to the salaries they earn teaching in K–12 public schools (Goldhaber et al., 2021).

The effect of attrition on students is not clear (Hanushek et al., 2017). While some research has shown that more effective teachers tend to stay at their schools, while less effective teachers tend to leave (e.g., Goldhaber et al., 2011), other research suggests that quality of instruction still suffers following turnover (Hanushek et al., 2017). This is potentially because, even if average teacher quality (measured using regression-based value-added measures, for example) increases after turnover of lower quality teachers, turnover still causes disruptive effects to the school, such as negative effects to collegiality, institutional knowledge, and the necessity to reallocate teachers and resources following the teachers' departures (Hanushek et al., 2017; Ronfeldt et al., 2013). For these reasons, teacher attrition is still problematic even in cases where teacher quality measures might suggest that attrition might be beneficial for the school/district.

One of the methods that has been used to bring teachers into urban schools serving disadvantaged students is using alternative certification programs such as Teach for America (Teach for America, 2018). Although alternative certification programs like Teach for America (TFA) have been successful in bringing teachers into classrooms, teachers who enter the profession through alternative certification programs leave teaching at rates 150% higher than teachers who enter through traditional certification

pathways (Carver-Thomas & Darling-Hammond, 2017). Over half of TFA teachers leave their initial schools after their two-year commitment (Donaldson & Johnson, 2011). The most commonly cited reason for TFA teachers leaving teaching is personal advancement (i.e., leaving to pursue a career outside of teaching, or to go on to an additional degree program). A reason this might be the case is that many TFA teachers have plans to take on careers outside of the classroom, which they have often decided prior to beginning the program (Heineke et al., 2014).

Of TFA teachers who do not leave for professional advancement purposes, the next most common reason for leaving initial placement schools or the teaching profession relates to teachers' feelings of poor support (Donaldson & Johnson, 2011). Low perceived levels of support have been identified for TFA mathematics teachers specifically as a significant factor for attrition as well (Zahner et al., 2018). While much TFA teacher attrition research has focused on the reason why teachers choose to leave their schools, or teaching entirely, other research has also investigated the reasons that TFA teachers choose to stay in teaching (e.g., Chambers, 2017; Heineke et al., 2014). This work suggests that the TFA teachers who choose to stay often make the decision to stay in teaching when they can develop high-quality relationships with their peers and supervisors. When they develop these strong relationships, they appear to be able to persist in environments that are the most challenging, in general. For this reason, it appears that teachers' ability to develop a strong support network is important in reducing attrition for TFA teachers who are completing their two-year commitments in their placement schools. While recent research has found that the difference in attrition

between math and science teachers and other disciplines is no longer significantly different in general, it appears that the gap is still present in high-needs schools (Nguyen & Redding, 2018). Because TFA teachers are placed in high-needs schools, deepening our understanding of how support networks can be used to reduce attrition may provide the field with knowledge that can be leveraged to reduce the opportunity gap for students belonging to the marginalized communities that these schools serve.

### **Rationale of the Study**

As described earlier, support available to mathematics and science teachers is influential to their decisions around remaining or leaving the profession, and teachers in these disciplines often leave teaching due to support-related reasons (Carver-Thomas & Darling-Hammond, 2017). Because a high proportion of these mathematics and science teachers come from alternative pathways, many from the TFA program, studying the relationship between the support available to TFA mathematics and science teachers and their decision-making around their career plans can provide insight into strategies for supporting teachers better as they begin their careers. Because mathematics and science are areas of both teacher shortages and declining student achievement, supporting teachers in these areas has the potential to improve results in both of these areas, as a well-prepared mathematics and science workforce can support student achievement (Carver-Thomas & Darling-Hammond, 2017; US Department of Education, 2021). As TFA represents one major pathway for teachers to enter the profession and serve communities of color that endure the highest rates of teacher attrition, studying these teachers allows us to investigate a population that is at the forefront of combatting issues

of student achievement and systemic inequities in mathematics and science education.

While research has clearly indicated the importance for novice TFA teachers to develop strong relationships and to receive support from their colleagues and supervisors, most research around teacher support has tended to focus on specific portions of teachers' support networks, rather than investigating these teachers' use of their entire networks. For example, existing research around teacher support has focused on aspects of either teacher-principal relationships, teacher-mentor relationships, or teacher-administration relationships (e.g., Cordeau, 2003; Grissom, 2011; Loeb, Darling-Hammond, & Luczak, 2005; Schindewolf, 2008). It has not, however, generally attempted to understand support in terms of the *network* of individuals that teachers are able to draw their support from; such a perspective would be especially valuable because it can provide us with a more comprehensive understanding of recruitment and retention (Baker-Doyle, 2010). This work investigates the entirety of these networks in order to understand how teachers draw support from a combination of peers and supervisors, both within their schools and their TFA cohort. It also tracks the development of these support networks throughout the two-year commitment as these networks grow, shrink, and change over time based on the teachers' support needs, and the available individuals and resources at a given time.

Furthermore, while previous research has investigated how TFA teachers make decisions around post-commitment plans after teachers have reached their decisions, it has not followed the decision-making process over time as the decisions are being made by the teachers. This study will be unique in that it will study the relationship between TFA mathematics and science teachers' support networks and decision-making process

around post-commitment plans as the process unfolds for the teachers during the school year, rather than asking teachers to reflect on the process retrospectively. By taking on this approach, the complexity and nuances of how the decision-making process evolves over time can be monitored in a way that cannot be replicated by strictly post-decision interviews and/or surveys. By understanding the decision-making process more deeply, we can develop a fuller understanding of how this process influences the teachers' post-commitment plans over time.

By studying the post-commitment plans as a variable that changes over time rather than as a single outcome, the post-commitment plan is viewed in this study in terms of its trajectory instead of strictly in terms of its final form. With this understanding, we can describe the *intended plan trajectory* as the development of TFA teachers' plans from an initial plan that the teachers intend to follow at the beginning of the program to a tentative plan (which may or may not change over time) that leads to a final post-commitment plan that the teachers ultimately follow at the end of their two-year commitment. The final plan decided upon at the end of their two-year commitments at their schools may or may not match the intentions of the teacher throughout the two-year period. This longitudinal study, then, allows us to learn about the relationship of the support network with both the TFA teachers' decision-making process and their intended plans throughout their two-year commitments.

The target population for this study is second-year TFA mathematics and science (i.e., Biology, Chemistry, Earth Science, General Science, & Physics) teachers who are completing their second year in high-needs schools in Massachusetts, a state in which

both content areas have been flagged as areas of teacher shortage for over 15 years in high-needs schools according to the US Department of Education (US Department of Education, 2021). The ten teachers who were followed throughout their second year in teaching entered the TFA program in the 2018–2019, completing their master’s program in education at a Massachusetts university that partners with TFA.

### **Research Questions**

The purpose of this study is to investigate the relationship between second-year TFA secondary mathematics and science teachers’ support networks and their intended career plans, and to learn about how these teachers develop, maintain, and utilize their support networks. Through the use of recruitment survey responses and semi-structured interviews, this study addresses the following research questions:

1. What support networks do the TFA teachers draw upon over the course of their second year? How and why were these support networks developed, used, and maintained during their second year?
2. What were the teachers’ processes for developing their intended plans?
3. What was the role of the TFA teachers’ support networks in their decision-making process during their second year?
4. How did the teachers’ decision-making processes influence their intended plan trajectories?

### **Significance of the Study**

Teacher attrition is generally a concern because of its disruptive effects on schools (Hanushek et al., 2017; Ronfeldt et al., 2013). However, the negative impacts are felt

more frequently in schools that serve higher proportions of low-income and minority students, especially in the fields of mathematics and science (Carver-Thomas & Darling-Hammond, 2017; Nguyen & Redding, 2018). Alternative certification programs such as Teach for America have been successful in bringing teachers into these classrooms, but, like other teachers working in challenging environments, TFA teachers leave these schools at high rates because of a perceived low quality of work conditions, including the perception of a lack of support from administration (Donaldson & Johnson, 2011; Hanushek et al., 2004; Heineke et al., 2014; Zahner et al., 2018). Much research over the past few decades has investigated the reasons why teachers are leaving their schools (Simon & Johnson, 2015). However, attrition rates continue to be problematic, especially in schools serving high proportions of minority and low-income students. Research suggests that TFA teachers' development of high-quality relationships may be influential in their decisions to continue at their schools beyond their two-year commitment (Chambers 2017; Heineke et al., 2014).

The findings of this study contribute to the field by presenting a deeper understanding of how TFA teachers develop and maintain high-quality relationships with their support networks and how these relationships influence these teachers' decision-making processes and post-commitment plan trajectories. This focus on teachers' support network will allow us to supplement research currently done on teacher attrition that focus on a labor market perspective (Baker-Doyle, 2010). This knowledge will have implications for a variety of stakeholders. For schools that partner with TFA (and novice mathematics and science teachers in general), there will be an implication for how best to

allocate resources for these teachers as they begin their professional career in teaching. If teachers are retained at these schools, they can minimize the negative impact of attrition on school culture and student learning. For TFA and university partners, this information will be useful in developing strategies that will improve the experience of teachers as they complete their degrees/licensure programs, and as they complete their two years in their placement school. These changes may involve curriculum changes, or the creation of roles at the university to provide TFA teachers with support based on identified needs. A key contribution of the longitudinal nature of this study is the ability to understand further how interventions can be strategically approached in terms of substance and timing to provide the most effective support to teachers at times that will have the most positive impact on their post-commitment plans. Finally, due to the timing of this study, it also addresses the effects of the COVID-19 pandemic and the transition to remote learning in the Spring 2020 semester on teachers' support networks, decision-making processes, and post-commitment plan trajectories.

### **Definitions of Terms**

TFA teacher – an individual who is a Teach for America corps member and currently teaching in a K–12 school as part of their commitment to Teach for America.

Urban School – a school located within a city environment (as opposed to located within a suburban or rural environment).

Appraisal Support – interactions in which support network members provide ongoing personal appraisal, such as frequent and constructive feedback about their performance, information about what constitutes effective teaching, and clear guidelines regarding job

responsibilities. Example: A principal observing a teacher's class and offering constructive feedback during a meeting regarding the implementation of the lesson.

Emotional Support – interactions in which support network members show teachers that they are respected, trusted professionals, and worthy of concern by maintaining open communication, showing appreciation, taking an interest in teachers' work, and considering teacher recommendations. Example: A experienced colleague in the mathematics department expressing empathy for the challenges faced by the TFA teacher and expressing respect for their perseverance.

Informational Support – interactions in which support network members provide teachers with information that they can use to improve classroom practices. Example: administrators provide opportunities for teachers to attend staff development, offer practical information about effective teaching strategies, and provide suggestions to improve instruction, classroom management skills and strategies to identify signs of stress and burnout and strategies to alleviate these stressors.

Instrumental Support – interactions in which support network members directly assist teachers with work-related tasks, such as providing necessary materials, space, and resources, ensuring adequate time for teaching and nonteaching duties, assisting teachers with parental difficulties, helping with managerial-type concerns, developing forums to support the day-to-day frustration of students, and providing flexibility for consultation time. Example: A supervisor providing curricular materials to a teacher for a lesson that they will be teaching.

Intended Plan– The plan that the TFA teacher is planning at on following through with at a given time during their two-year commitment regarding their job following the second year in the high-needs school. Teachers will be described as *stayers*, *potential stayers*, *movers*, or *leavers* depending on what they plan to do for work in the following September. *Stayers* are teachers who have decided to remain at their high-needs placement schools, and *potential stayers* are ones who are still considering staying at their high-needs placement schools. *Lingerers* are teachers who choose to remain in teaching for a third year, but who do not have an intention (at the time) of staying beyond their third year. *Movers* are teachers who plan to leave their high-needs placement schools for another school, and *leavers* are teachers who plan to leave the teaching profession entirely. The *intended plan trajectory* tracks the teacher’s intended plans, which may, in some cases, change periodically during the TFA teacher’s two-year commitments.

Remote learning – Teaching environments where the students and teachers are not physically in the same space. Remote learning can either be asynchronous, where students complete assignments/tasks that are presented by teachers with no set meeting times, and/or synchronous, where teachers and their students meet virtually using an online platform (e.g., Google Classroom, Microsoft Teams, Zoom, etc.) at an agreed upon time.

Support – Teachers’ interactions with their support networks that increase their ability to complete their job more effectively.

Support Network– individuals from teachers' social networks who teachers identify as sources of appraisal, emotional, informational and/or instrumental supports. In this study, the focus will be on the network of individuals who maintain some professional relationship with the teacher (rather than strictly personal connections).

## CHAPTER 2

### Literature Review and Conceptual Framework

This chapter reviews existing research on teacher retention, reasons why teachers leave their schools (both generally and within the TFA program specifically), and the relationship between teachers' perceived feelings of support and teacher attrition.

#### Research on Teacher Attrition

Teacher attrition has increased substantially over the past two decades, sitting consistently around 8% per year over the past 15 years (Carver-Thomas & Darling-Hammond, 2017). Teacher attrition is a primary contributor to teacher shortages nationally (Carver-Thomas & Darling-Hammond, 2017), and so there is increasingly intense national dialogue taking place over how to attract and keep good teachers (Dumler, 2010). High-needs schools are most susceptible to the “revolving-door” effect, where new teachers leave and move on to schools serving higher-income students (Ingersoll, 2001, p. 501) and are subsequently replaced by teachers who tend to be even less experienced (Allensworth et al., 2009; Boyd, Lankford et al., 2005, Hanushek et al., 2004; Leukens et al., 2004; Marinell & Coca, 2013). Because the issues of teacher turnover are most pronounced in low-income communities, urban schools that serve a disproportionate number of minorities are the ones that are most affected, with turnover being 70% higher in schools that serve the largest concentrations of students of color (Carver-Thomas & Darling-Hammond, 2017). These trends have led to a disproportionately large number of low-income children being taught by inexperienced teachers (Ingersoll & Merrill, 2012; Simon & Johnson, 2015). Furthermore, research

suggests that it tends to be the highest-achieving teachers who tend to leave highest-needs schools (Alliance for Excellent Education, 2008; Boyd et al., 2005), further increasing inequity within the educational system, as research has shown that mathematics teachers with more experience can be more effective than their less experienced peers (Henry et al., 2012).

While researchers agree that some attrition (i.e., of less skilled teachers) can be good for schools (Carver-Thomas & Darling-Hammond, 2017), other research has found that teacher turnover can be problematic (Hanushek et al., 2016; Ronfeldt et al., 2013). Teacher attrition has several negative effects, not only for students, but also for taxpayers, educators, schools, and communities (Alliance for Excellent Education, 2008). The effects of attrition disrupt work at schools (Ronfeldt et al., 2013) and come at a high financial cost, with hard-to-staff urban schools spending between 2.5 and 3 billion dollars a year in recruitment efforts (Alliance for Excellent Education, 2004). This disruption hampers schools' abilities to develop programs and implement curricula, and teachers' ability to improve their instruction together over time (Allensworth et al., 2009). Turnover also compromises instruction by diverting resources away from classrooms towards hiring and induction (Grissom, 2011).

As research suggests teacher effectiveness correlates with teacher experience (Henry et al. 2014), it is important to understand how teachers can be retained in their placement schools/district with the aim of increasing the experience (and effectiveness) of the teachers working in these communities. Research has shown that while teacher turnover can have positive effects in some cases, on average, teacher turnover has

harmful effects with respect to student achievement (Ronfeldt et al., 2013). Teacher attrition is even further exacerbated within mathematics and science education, as research has shown teachers of hard-to-staff subjects rarely stay in hard-to-staff schools (Boe, 2006; Carver-Thomas & Darling-Hammond, 2017; Ingersoll & May, 2011; Murnane et al., 1991; Simon & Johnson 2015). In Title I schools, which serve at least 40% low-income students, the turnover rate for mathematics and science teachers is 70% greater than it is for teachers in non-Title I schools — 17.8% vs. 10.5% annually (Carver-Thomas & Darling-Hammond, 2017). Carver-Thomas & Darling-Hammond (2017) attributed these higher rates to the availability of higher-paying occupations to mathematics and science teachers, and to lower levels of teacher preparation, which in part is due to higher proportions of mathematics and science teachers entering through alternative certification pathways (which are also associated with higher attrition rates).

Through an analysis of 14,000 teacher candidates in Washington state, Goldhaber and colleagues (2021) were able to demonstrate that even though K–12 teachers in working in STEM fields are more readily employed and earn more on average than their non-STEM counterparts, they still, on average, earn more in occupations outside of K–12 teaching, with this difference in salary differential being larger for teachers with STEM endorsements compared to other teachers. As is pointed out by the authors, adjustments to salary based on discipline based on these labor market remains a topic of debate. The authors also suggest that the pursuit of a career in K–12 teaching may come at a larger opportunity cost for teachers with STEM backgrounds compared to those who teach in other disciplines.

Research has shown that teachers have a significant effect on students' mathematics achievement (Rivkin et al., 2005; Rodriguez, 2009; Rowan et al., 2002; Wright et al., 1997). For example, in an analysis of test results on the Florida Comprehensive Achievement Test Math Development Scale Scores, Rodriguez sorted teacher into categories and found that students of beginning teachers scored significantly lower on the 9<sup>th</sup> grade math test than students of more experienced teachers, finding a small, but significant effect size. He recommended that the school district consider adjusting teaching assignments (i.e., which classes and how many different classes teachers are assigned each year) to improve student results on this test. However, such a remedy would not be possible in schools where there is a shortage or lack of experienced mathematics teachers to teach these courses.

### **Reasons for Attrition in Urban Schools**

Much research has examined the reasons why teachers leave their schools (Nguyen et al., 2020; Simon & Johnson, 2015). One body of research has examined the correlation between student characteristics and teacher retention (e.g., Boyd et al., 2005; Carroll et al., 2000; Hanushek, 2004; Scafidi et al., 2007). Research on student body demographics have found that teachers on average leave schools for ones that serve fewer low-income, low-achieving minority students (Simon & Johnson, 2015). Hanushek et al. (2004) argue that teachers actively seek out schools that have fewer students from marginalized communities. They found that moves by teachers were more strongly correlated with student race and achievement than with salary differentials, and that the salary differentials needed in order offset these other differentials would need to be 25–

40% above current pay rates for inexperienced female teachers (and even higher for male teachers, who were found to receive higher salary increases when switching teaching positions). Loeb and colleagues (2005) also found that student characteristics and salary both play a part in teacher turnover. It may be the case that mathematics and science teachers, who have access to higher-paying alternative occupations (Goldhaber et al., 2021) may be drawn to leave the teacher profession to pursue alternative opportunities (Carver-Thomas & Darling-Hammond, 2017; Zahner et al., 2018).

While much research examining reasons for attrition related to the demographics of the students that teachers teach, more recent research has focused on analyses of the working conditions and organizational structure of schools (Alliance for Excellent Education, 2008; Connors-Krikorian, 2004; Johnson et al., 2012; Levin & Quinn, 2003; Simon & Johnson, 2015; Zahner et al., 2018). Using a sample of 25,135 classroom teachers in Massachusetts public schools, Johnson and colleagues (2012) found that each of nine work context elements (colleagues, community support, facilities, governance, principal, professional expertise, resources, school culture, and time) had a strong positive relationship with teacher satisfaction and plans to stay in the school. Johnson and colleagues (2012) argue that poor work environments, not low-income and minority students, are the reason for high teacher turnover in these schools, as student, teacher, and school characteristics had only a small impact once their work context elements were accounted for.

Research focused on working conditions has consistently found that perceived lack of support, whether it be from principals, administrators, colleagues, or mentors,

tends to be correlated to higher rates of attrition (Alliance for Excellent Education, 2008; Ingersoll, 2001a; Levin & Quinn, 2003; Pech, 2009). Also, other aspects of work conditions — large class sizes, facilities problems, lack of textbooks — tend to correlate more with teacher retention than characteristics of the students, such as race or SES (Loeb et al., 2005). Conversely, strong support networks, both developed formally and informally, have been linked to higher retention rates (Allen, 2013; Alliance for Excellent Education, 2008; Chambers, 2017; Cihak, 2015; Guarino et al., 2006; Kapadia et al., 2007; MetLife Survey of the American Teacher, 2005; Rice, 2009; Useem, 2003).

Teachers who are certified through alternative pathways tend to have higher attrition rates than the average for teachers across the board (Guarino et al., 2006), with teachers entering the profession through alternative certification pathways being 25% more likely to leave their schools and the profession, even after controlling for their students, schools, and teaching conditions (Carver-Thomas & Darling-Hammond, 2017). This trend appears to be true for Teach for America teachers, which is perhaps unsurprising, as many TFA teachers tend to enter the program with the intention of pursuing other careers after their two-year commitments, and because TFA teachers tend to be placed in urban, high-needs schools where attrition rates tend to be higher (Donaldson & Johnson, 2011; Zahner et al., 2018).

There is evidence that work conditions also have a significant impact on TFA teachers in particular. Using a sample of 110 TFA teachers, Zahner and colleagues (2018) found that TFA teachers left their schools at a significantly higher rate than teachers in another alternative certification program, with 22 of 25 (88%) teachers responding to an

item on intended career plans indicating that they planned to leave their current school within 2 years. They found, compared to teachers from the other program, that teachers in TFA tended to rate their school conditions as lower than teachers in the other alternative teacher certification program, including on measures related to feelings of support (e.g., “I feel that school administrators providing support by providing a welcoming social environment for teachers”). The researchers noted that, compared to the other alternative certification program, TFA teachers were more likely to be placed in schools serving a high proportion of low-income students, which suggests that possibility that the environments in these schools may be less supportive in general.

Using a sample of 2,029 teachers from three TFA cohorts (62% response rate), Donaldson and Johnson (2011) found that only 43.6% of TFA teachers remained in their initial school after their 2<sup>nd</sup> year, and only 14.8% made it to their fifth year at their initial placement. This dramatic drop is important because research suggests that, while more experience does not always mean more effectiveness (Rice, 2010), mathematics teachers who remain in the profession for at least five years are more effective than novice teachers when comparing their students’ mathematics achievement (Henry, Fortner, & Bastian, 2012). Thus, while TFA is able to get mathematics teachers into urban, high-needs schools, the vast majority of these teachers are no longer at these schools as they gain experience and improve their ability to teach effectively (if they remain in teaching at all). As mentioned above, if they do remain in teaching, the trend is that teachers who leave their schools tend to leave for schools that serve higher-income students (Ingersoll, 2003).

Heineke and colleagues (2014) studied the factors that influenced TFA teachers' decisions whether or not to remain in teaching beyond their two-year commitments. Using a mixed-methods design, they surveyed 73 TFA teachers (response rate: 68%) enrolled in a university partnership and conducted interviews with 7 TFA teachers. From the survey of 73 TFA teachers, they described three categories of teachers: leavers (those who left teaching after their two-year commitment), lingerers (those who remained in teaching for a third year while they figured out their future plans, some of whom stayed at their initial schools), and lasters (those who chose to remain in their initial schools). Heineke and colleagues considered three sets of factors impacting the post-commitment plans of the TFA teachers: (1) backgrounds prior (historical factors), (2) experiences during (environmental factors), and (3) considerations after (external factors). These categories echo those found in meta-analyses of teacher retention for all teachers (Nguyen et al., 2020).

They argued that these three sets of factors influenced whether the teachers left, lingered, or lasted. They found that lasters and lingerers who remained in their schools generally chose to do so because of positive experiences at their schools and ample support from administrators and mentors. One laster, Evan, described his clinical instructor at the university partner as an expert in his field who gave him specific feedback and advice. It is worth noting that Evan chose to stay in this school although he did not have any specific school-based mentor, as this instructor provided him with key support. As Evan describes, "It was good to have someone with that wealth of knowledge available to really lean on" (Heineke et al., 2014, p. 770). This example highlights the

ability of high-quality relationships to impact teacher retention, regardless of whether the source of support is actually within the school.

Chambers' (2017) work approached the TFA retention issue from a different perspective, instead exclusively focusing on TFA alumni who did stay after their two-year commitment. Using interviews with 20 TFA alumni who remained in teaching beyond their two-year commitment (with about 5 to 20 years of experience), Chambers learned of the challenges faced by these teachers during their initial years in teaching, and the factors that led them to ultimately decide to remain in teaching despite these challenges. While they described challenges that were similar in nature to teachers who leave high-needs schools (e.g., poor working conditions and lack of support), they also described additional challenges that come as a result of the TFA approach to recruitment and placement. For example, the placement process sometimes leaves TFA teachers teaching in a different subject or grade than they were trained in, as a result of the needs of the school in which they were placed. For example, one TFA mathematics teacher described how she was expected to teach students with special needs without training from TFA on pedagogical strategies or the legal rules.

Nevertheless, despite the challenges faced by these TFA teachers, Chambers (2017) found that these teachers chose to remain in teaching for a number of reasons. A common theme that emerged was a positive experience with the TFA community. They described the small TFA community within their schools that they had from the beginning as being important (including TFA teachers who were already at the school). They also described positive relationships with veteran teachers within the school and

TFA program directors as being influential factors in their decision to continue one. One teacher specifically mentioned the program director as being the one who convinced her to continue to teach even though she considered leaving her urban, high-needs school that she felt was dysfunctional. Thus, this study suggests that while work conditions might be poor in some of these urban high-needs schools, building positive relationships within the school and with TFA staff and corps members can be influential in teachers' decisions of whether or not to remain in teaching (whether or not it is at their initial placement). For this reason, it is important to understand further how these positive and influential relationships can be developed and maintained by TFA teachers in urban high needs schools.

### **The Role of Support in Teacher Retention**

Regardless of certification pathway, support is needed to lay the foundation for professional growth and to ensure professional development is meaningful and transferable from teachers' learning into their own teaching (Stanulis et al., 2007). Research on the support that teachers need has focused primarily on principals/administrators or induction/mentorship programs. Each of these bodies of literature will be addressed in the following section.

Many researchers have written on the importance of principals' and administrators' supports for teachers (e.g., Boyd, Grossman, Ing, Lankford, Loeb, & Wyckoff, 2011; Brock & Grady, 2001; Brown & Wynn, 2007; Cihak, 2015; Dumler, 2010; Grissom, 2011; Heckman, 2011; Hughes, Matt, & O'Reilly, 2015; Johnson, 2006; Littrell, Billingsley, & Cross, 1994; Peronto, 2013; Wilson, 2009; Wood, 2005). Principal

support is imperative in hard-to-staff schools (Hughes, Matt, & O'Reilly, 2015), as it is significant factor in the retention of new teachers (Brown & Wynn, 2007).

There are several ways in which principals can support teacher retention. Through a mixed-methods design consisting of a survey, case studies, and interviews, Domers (2015) collected data on teachers and principals to investigate the implications of principal and teacher beliefs on teacher retention at four urban schools. Based on themes that emerged from two rounds of principal interviews, Domers recommended that principals build a dynamic school community that honors teachers' autonomy, manage their time well to address the needs of their schools, adjust adeptly in response to the changing needs of the school, and recognize the interconnected relationships of school operations. Through a combination of interviews, observations, document analysis, and reflective notes on principals in urban districts, Holden (2016) examined the relationship between six leadership practices and retention. Through interviews, observations, document analysis and reflective notes involving four elementary school principals selected from both high and low attrition schools, Holden found that practices principals at low attrition schools enacted included (1) providing leadership (i.e., moving the school in a positive direction), (2) supporting new teachers, (3) training and mentoring staff, (4) creating opportunities for collaboration, (5) creating a positive school climate, and (6) promoting teacher autonomy (Holden, 2016). Clearly, principals play a key role in the organizational functioning of the school. The quality of principals has an even larger effect in schools serving low-income students (Grissom, 2011). Principals must be cognizant of the relationships within the school and provide supports to the individual

staff (including teachers) as needs arise throughout the school year.

Other researchers have investigated the effect of support from individuals at the school outside of administration. Early career support is important, as it not only supports teacher retention, but also teacher learning (Feiman-Nemser, 2003). When teachers do not receive adequate support from their colleagues, they are more likely to leave their schools (Billingsley, 2004a, 2004b). Fisher (2009) argues that the support needed for mathematics teachers is also different from those of other teachers. For example, mathematics teachers might need specialized professional development that would be different from that which teachers of other disciplines might need. Graven (2005) documented the ways in which an in-service education and training program focused on mathematics educators had an effect on one teacher, Sam, who began as a temporary mathematics teacher. This program consisted of weekly workshops, individual and group reflection sessions, classroom visits accompanied by the use of video, individual and collaborative practical activities to be done in school and written activities to accompany those practical activities. Graven found that Sam's identity as a mathematical being, his identity in his relation to his changing practice, and his identity within his various communities were transformed because of this program. Graven described Sam's transformation as being from a temporary teacher of mathematics to a professional mathematics teacher 'leader.'

Others have also described the importance of induction and mentorship to support the development and retention of novice teachers (e.g., Allen 2013; Borman & Dowling, 2006; Cookson, 2007; Feiman-Nemser, 2003; Rice 2009; Ronfeldt & McQueen 2017;

Smith & Ingersoll, 2004). Collegial support has been noted as one of the factors that determine if a teacher stays or leaves a school and mentorship programs have proven to be one of the most successful methods of retaining new teachers (Rice, 2009). However, the mere presence of a mentorship program does not necessarily provide teachers with adequate support (Fry, 2010). Some of the potential reasons why mentorship programs might not provide adequate support include, mentor mismatch, lack of observations and feedback and lack of assistance with understanding curriculum and instruction (Rice, 2009). It is not sufficient for a support structure to be in place; it must also be the case that the culture of the support systems is effective in meeting the needs of teachers (Gaikhorst et al., 2014). Gaikhorst and colleagues (2014) interviewed principals and teachers at 11 urban primary schools in the Netherlands and found that urban teachers need support activities that are effective and done more consistently and conscientiously, focusing on the needs of the teachers specific to their urban environment. They also described the range of supports that teachers had available, including classroom visits from principals or supervisors, informal conversations with their ‘buddy’ (more experienced teachers), reduction in extra tasks, parental contact support, and peer review meetings.

The research on teacher support suggests that there are a number of sources from whom teachers can receive support. The quality of this support is dependent both on the ability of the individuals who are providing the support, as well as the structure and implementation of support programs within the schools. Furthermore, the culture of support within the school is also important, as schools with similar programs may not

have the same outcomes if the collegiality and trust within the school environment are poor. For this reason, a study of support networks within schools must consider not only what support structures are available, but the quality of those offerings, and the way in which teachers use these support systems.

The previously referenced literature has defined the construct of *support* in a variety of ways. For this study, we will consider *support* to be a set of interactions that increase a teacher's ability to do their job effectively and will use House's framework of social support (1981) in order to describe the types of support that are (or are not) received by teachers. This framework will be elaborated on below.

### **House's Framework of Social Support**

House (1981) argued that teachers are supported by administration in four specific areas. These four types of supports fall into four categories: appraisal, emotional, informational, and instrumental. House's definitions of these four types of support are as follows:

Appraisal Support – Administrators are responsible for providing ongoing personnel appraisal, such as frequent and constructive feedback about their performance, information about what constitutes effective teaching, and clear guidelines regarding job responsibilities.

Emotional Support – Administrators show teachers that they are respected, trusted professionals, and worth of concern by maintaining open communication, showing appreciation, taking an interest in teachers' work, and considering teacher recommendations.

Informational Support – Administrators provide teachers with information that they can use to improve classroom practices. For example, administrators provide opportunities for teachers to attend staff development, offer practical information about effective teaching strategies, and provide suggestions to improve instruction, classroom management skills and strategies to identify signs of stress and burnout and strategies to alleviate these stressors.

Instrumental Support – Administrators directly assist teachers with work-related tasks, such as providing necessary materials, space, and resources, ensuring adequate time for teaching and nonteaching duties, assisting teachers with parental difficulties, helping with managerial-type concerns, developing forums to support the day-to-day frustration of students, and providing flexibility for consultation time.

House's framework has been used and adapted by a number of researchers to investigate different aspects of principals and teachers' experiences with support in schools. Littrell (1992) investigated the effect of perceived principal support on teacher stress, personal health, job satisfaction, school commitment, and intent to stay in teaching of both general and special education teachers. A sample of 613 teachers responded to her *Principal Support Questionnaire*, which addressed their perception of support on these four dimensions from their principal. Littrell found that (a) both special and general educators rated the importance and extent of emotional support to be higher than that of the other three dimensions, (b) work related variables such as frequency of interaction with principal, camaraderie, and optimism were better predictors of the extent of support than were demographic variables, and (c) the extent of emotional, informational, and

instrumental support were significant predictors of job satisfaction, school commitment, and personal health (while appraisal support was not).

Cordeau (2003) investigated principals' perceptions of the importance of six dimensions of support (the four described above, and also instructional leadership and moral responsibility) for both traditionally and alternatively certified teachers. Cordeau designed the *Mentoring Alternatively Certified Teachers: Principals' Perceptions* survey based on Littrell's *Principal Support Questionnaire* and found that principals viewed the importance of supports for traditionally and alternatively trained teachers as being significantly different in five of the six dimensions (all but appraisal support). Cordeau recommended that further research look at *teachers'* perceptions of the importance of each of these dimensions of support.

Schindewolf (2008), building on Cordeau's work, created an instrument called the *Teacher Support Survey: Dimensions of Support Leading to Retention* to both alternatively and traditionally certified novice teachers in order to compare the importance of each of these support dimensions. Schindewolf's survey also addressed two other types of support: *instructional leadership*, and *moral responsibility*. Using t-tests with a sample of 348 teachers (183 traditionally certified teachers and 157 alternatively certified teachers) with 1 to 5 years of experience, Schindewolf found that there were significant differences between responses for traditionally and alternatively trained teachers, with traditionally trained teachers rating *emotional, instrumental, informational, instructional leadership*, and *moral responsibility* as being more important to them as compared to alternatively trained teachers. Open-ended responses indicated

that *instrumental support* and *emotional support* were “extremely” important to both groups of teachers.

Cancio, Albrecht, & Johns (2013) used House’s theory of social support in order to investigate the extent to which teachers working in special education (an area where teacher attrition is high) valued and felt these types of supports while working with students with emotional and behavioral disorders. Using a survey design, responses from 408 teachers that were members of the Council for Children with Behavioral Disorders were used to investigate how this framework aligned with teachers working with this student population. They found that three of the four dimensions of support found through their survey aligned with House’s framework (emotional, informational, and appraisal), while instrumental support did not surface in their analysis of the teachers’ responses. In the place of instrumental support, the authors found that a dimension of appreciation appeared in their results as one that was identified by their population of teachers. While this exploratory study provided some insight into these teachers’ feelings regarding support, their instrument was not tested for reliability and validity, which threatens the potential for their results to be generalizable to their population.

Cihak (2015), building on House’s theory of social support, designed a phenomenological study exploring the relationship between teacher retention and administrative support in order to investigate how novice teachers perceived their roles as teachers and how they constructed their own identities based on their collection of experiences involving administrative support. Though interviews with 12 purposefully sampled teachers in their third year of teaching in public schools, Cihak was able to

answer the question of how the sample of novice teachers perceived the role of support in their desire to remain in the profession. The themes that emerged from this study were *expressive support, instrumental support, teacher work stress*, and increased *confidence*. She also described the role of peer support in the reduction of teachers' stress and in the development of their professional identities.

Using a variety of instruments, researchers have explored various aspects of teachers' and principals' experiences with the four types of support described by House. The wide range of findings suggests that the needs of teachers is highly dependent both on teachers' background and pathway into the profession, as well as the population that they serve. None of the studies mentioned above explicitly focused on TFA teachers, which suggests that a study into TFA teachers, who enter the profession through a unique pathway and who are called upon to serve in particular contexts, would potentially lead to new insights of a different set of supports that might be valued and needed by this population. Also, it is worth noting that House's framework, and the studies described above have focused in on the teacher and administrator/principal relationship, and not on other relationships that the teachers might have formed during the course of their teaching career. Thus, a contribution of this research will be to expand our understanding of feelings of these types of support to include those received from a variety of sources, including fellow TFA corps members, TFA staff, and faculty and staff at TFA's university partners.

## Conceptual Framework

While many TFA teachers who enter the profession do not plan on teaching beyond their two-year commitment, those who do desire to stay indicate that poor work conditions are a factor that contributes to their decisions to ultimately leave the school they were placed in, or the teaching profession entirely (Donaldson & Johnson, 2011; Heineke et al., 2014; Zahner et al., 2018). However, research also suggests that strong relationships, both within the school and within the TFA program, can contribute to TFA teachers' decisions to remain in teaching beyond their two-year commitment (e.g., Chambers, 2017; Zahner et al., 2018). As TFA teachers tend to be placed in high-needs schools that serve a high proportion of low-income students (Zahner et al., 2018), where there are already retention issues, it is worthwhile to consider how the development of strong relationships that might encourage teachers to stay at their high-needs schools might be supported.

*Support* will be defined along the four dimensions described in House's framework, as discussed above. We will define a teachers' *support network* to be the set of individuals from which teachers derived at least one of the four types of support (appraisal, emotional, informational, and/or instrumental), and a *support network member* to be any individual within a teacher's support network. The support network will be restricted to individuals who have a professional relationship with the TFA teacher. This will include teachers' colleagues, mentors, and supervisors at their placement schools, teachers at other schools that they collaborate with, as well as TFA staff and corps members, and staff and faculty at the university partner where they are obtaining their

licensure. The support network will not include individuals who do not have a professional relationship with the teachers (e.g., personal friends outside of the TFA program or family members). This study attempts to expand upon the current focus of literature on support, which views it either generally or through study of support from a narrow set of individuals (e.g., through school administrators only) by looking at the teachers' efforts of support through their entire professional support network.

The second construct of interest relates to the TFA teachers' intended career plans throughout their two-year commitments. The *intended plan trajectory* refers to the teachers' decisions regarding whether to remain in the teaching profession, or at their placement schools following the end of their two-year commitment in their high-needs school. The post-commitment plan trajectory consists of an *initial plan*, which the TFA teacher establishes as they begin their two-year commitment, their *intended plans*, which the teachers develop during the two-year commitment, and the *final plan*, which reflects the teachers' final decision at the end of their second year. Teachers' initial plans, intended plans, and final plans will be binned into four categories, based on their descriptions of their plans during the interviews: *stayers*, *potential stayers*, *movers*, or *leavers*. *Stayers* are teachers who have decided to remain at their high-needs placement schools (and using the terminology from Heineke and colleagues, *lingerers* are a subset of stayers defined to be teachers that have an intention to stay one more year, without necessarily planning to stay beyond the third year), and *potential stayers* are ones who are still considering staying at their high-needs placement schools. *Movers* are teachers who plan to leave their high-needs placement schools for another school, and *leavers* are

teachers who plan to leave the teaching profession entirely after their second year. Unlike existing research, which classifies teachers' plans based on the final plan decided upon by the teacher at the end of their two-year commitments, the intended plan trajectory includes any and all transitions in the TFA teachers' planning process that may occur over the course of the teachers' two-year commitments.

The final construct of interest is the TFA teachers' *decision-making process*, which will be defined as the mental process that the teacher undergoes throughout their two-year commitment. This process, which takes place throughout the two-years, reflects the steps taken by the teachers as they change and refine their intended plans over time. A goal of this study is to determine the form and variations of this decision-making process, which as of yet, has not been focused on in the existing TFA teacher retention literature.

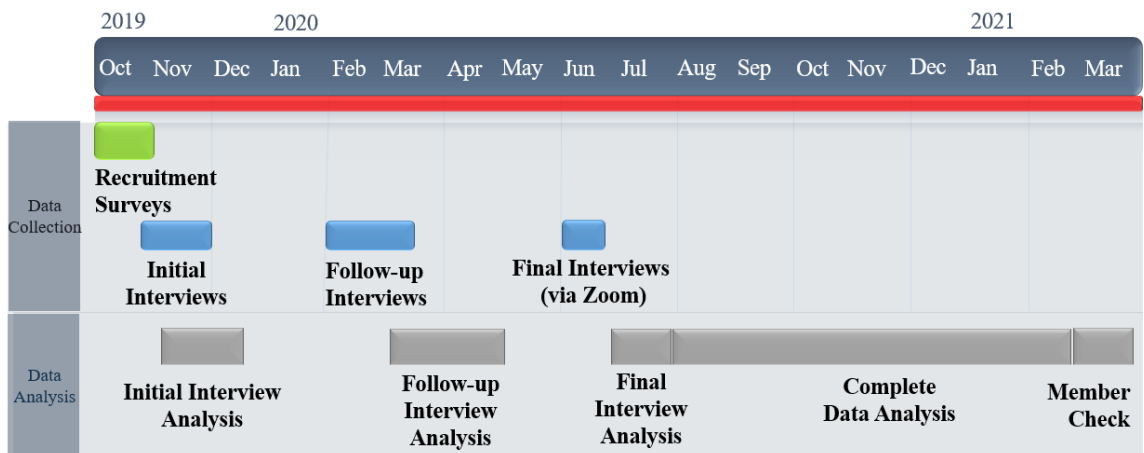
## CHAPTER 3

### Methods

This study consisted of a recruitment survey distributed to students within courses at a TFA-affiliated university in Massachusetts who were enrolled in courses designed for 2<sup>nd</sup> year TFA mathematics and science teachers, and a set of three semi-structured interviews with 10 participants that were selected from this group. The survey was administered by the researcher using the Qualtrics survey software and selected respondents were emailed with an invitation to complete the interviews with the researcher over the course of the academic year. The timeline for the study is provided in Figure 1 below.

**Figure 1**

*Data Collection and Analysis Timeline*



#### Recruitment Survey Procedures

An online survey was distributed to TFA teachers who entered the program as Corps Members (CMs) during the 2018–2019 school year in the Massachusetts region,

which consists of the Greater Boston, South Coast, and Western Massachusetts subregions. All TFA CMs in Massachusetts take in-person courses at the TFA-affiliated university for the region (no online-only students were included in the sample). The recruitment survey was disseminated in October 2019, which is towards the beginning of the CMs' second year at their placement schools. This timing allowed teachers to provide responses that were representative of their experiences over the period that included both the entirety of their first year and the beginning of their second year.

I sent emails to the professors of BU courses required by TFA mathematics and science CMs requesting permission to distribute survey links to their students during a break or at the beginning/end of class. Professors of three courses (two courses from the mathematics education program, and one from the science education program) gave permission, and the sample included TFA teachers enrolled with those three classes. The students were introduced to the study and invited to participate by going to the link presented on the board. The first section of the survey provided the details of the study and asked for informed consent for participation in the study. Teachers were also asked about their willingness to participate in interviews if they were selected for the next phase of the study. The recruitment survey consisted of three sections: teacher background, feelings around support, and post-commitment plans.

The teacher background section asks the teachers questions around their personal/academic background (e.g., race/ethnicity, undergraduate major) and their current placement school (e.g., subjects taught, type of school). Teachers who did not meet the inclusion criteria for the study (i.e., teachers who were not in their second year

in TFA, or not teaching mathematics or science) were sent to the end of the survey and excluded from the interview selection process.

The feelings around support section of the survey asked teachers about the extent to which they felt that they received each of the four types of support described by House (i.e., appraisal, emotional, informational, and instrumental). They were asked a 5-point Likert scale question (ranging from strongly disagree to strongly agree) which reflected the extent to which they felt that they have professional contacts who provided them with each of the types of support. These responses were used during the initial interviews.

Finally, teachers were asked about their intended career plans. Questions about their post-commitment plans were asked using two stages of questions. First, teachers were asked if they intended on leaving or staying in teaching after their second year. Next, those who intended on staying in teaching were asked if they intended on staying at their current school. From these responses, teachers were grouped into categories: *leavers* (those who have decided that they will leave the teaching profession following their second year), *movers* (those who have decided to remaining in teaching but intend on leaving their schools), *stayers* (those who have decided to stay at their current school), and *potential stayers* (those who have not yet decided if they will stay in teaching and/or at their current schools). These categorizations reflected the teachers' intended post-commitment plans as of the beginning of their second-year as a baseline, with the intention of adjusting the categorization of each teacher as their plans evolved over the course of their second year (which would be updated based on the interviews). Teachers who expressed a leaning towards leaving their placement schools, but uncertainty of

whether or not they'd continue teaching elsewhere were categorized as *movers/leavers*.

A text copy of the Qualtrics recruitment survey can be found in the Appendix.

### **Interview Procedures**

Teachers who expressed a willingness to be interviewed on the recruitment survey were asked via email to meet the researcher for their initial interviews in October/November 2019. A total of 10 mathematics and science teachers (4 teachers with a primary workload in mathematics and 6 teachers with a primary workload in science) were selected, responded to the follow-up email, and chose to participate in the interview portion of the study. The initial interviews were held at the university or at an alternative agreed upon location. Informed consent for the interview portion of the study was obtained at the beginning of each of the initial interviews. The second interviews were scheduled with the 10 teachers via email and were conducted in a similar manner in February/March 2020. The final interviews took place during June 2020.

Because of the COVID-19 pandemic, the third interviews were conducted remotely using the Zoom videoconferencing software. While videorecording was enabled, only the audio recordings were analyzed. The questioning during the third interview were adjusted to gather information about the impact of COVID-19 on their use of their support networks, their decision-making processes, and/or their intended career plans for their third years. Additionally, teachers were asked about adjustments they needed to make in order to transition to remote learning, and their perception of their effectiveness and their school's effectiveness in making this transition.

Each initial, follow-up, and final interview lasted approximately 45–60 minutes

and each final interview lasted approximately 30–45 minutes. In each semi-structured interview, the researcher asked teachers a series of questions about their feelings of support and their decision-making around post-commitment plans. Interview protocols can be found in the appendix, and an overview of the interviews is presented below in the table below. Because of the nature of these interviews, the exact interview questions differed based on the teachers’ individual experiences, and the responses they provided in their recruitment survey and in prior interviews. As the conversations developed, I asked follow-up questions to learn more about the teachers’ perspectives and experiences related to the interview goals. A summary of the timeline and purpose of each of the three sets of interviews is presented in Table 1 below.

**Table 1**

*Interview Timeline and Goals*

<b>Interview</b>	<b>Time Period</b>	<b>Goals</b>
Initial	October/November 2019	1.) Discussion of survey responses 2.) Learn about their support networks in more detail 3.) Learn about their decision-making regarding intended plans
Follow-up	February/March 2020	1.) Discuss the development of their support networks 2.) Update on post-commitment plans 3.) Discussion on development of decision-making around intended plans (if still ongoing) or on how decision was reached (if finalized)
Final	June 2020	1.) Discuss their finalized plans 2.) Discuss their decision-making process 3.) Discuss the extent to which and how their support networks influenced the decision-making process

Following each initial interview, I created analytic memos, indicating the teacher's intended plans, their support networks, and any particular professional challenges described by the teacher during the interview. During subsequent interviews, I continued to write notes on the same memo (using color-coding) in order to track any updates/changes that occurred over the course of the interviews. I also created analytic memos in between interviews, taking note of any initial thoughts I had that might be useful for my analysis later on. I also kept track of any themes/patterns I noticed that might influence my coding/data analysis.

### **Participants**

Below Table 2 describes the participants that were selected and who chose to participate in the interviews. All participant names used below are pseudonyms. All teachers were in their second year in the TFA program and were placed at different schools in Massachusetts except for one pair (Dorothy and Katherine), who were mathematics co-teachers at the same school, and a third teacher Akiko, who taught science at school. Except for one teacher (Jo), all of the teachers taught mathematics or science courses exclusively. As all of the participants were acquainted with each other, information provided by one teacher was not used during interviews with other teachers, and other participants were only discussed within interviews if they were mentioned first by the interviewee.

It is worth noting that teachers were asked on the recruitment survey if they were willing to participate in the interview portion of the study, and so the analyses in the findings only capture the experiences of teachers who chose to participate in additional

data collection. Thus, it is possible that the experiences of the teachers in this sample are not fully representative of the range of teacher perceptions and experiences from the entire cohort of teachers.

**Table 2**

*Summary of Participants*

<b>Discipline</b>	<b>Pseudonym</b>	<b>Gender</b>	<b>Race/Ethnicity</b>	<b>Subject(s) Taught</b>
Science	Akiko	Female	Asian	General Science
	Jamie	Female	African-American	Biology
	Jo	Female	White	Chemistry & Engineering
	Matt	Male	African-American	Biology
	Paul	Male	White	Biology, Chemistry, Earth Science
	Rick	Male	Chicano	Chemistry
Math	Dorothy	Female	Asian	Pre-Algebra
	George	Male	White	Algebra I and Algebra II
	Katherine	Female	White	Pre-Algebra
	Melody	Female	Mixed/Hispanic	Pre-Algebra

**Data Analysis**

While the recruitment survey is instrumental in obtaining the sample, the bulk of the data analysis in this study comes from the interview data. Each interview was audio-recorded and transcribed by a professional transcription service. Because the final interviews took place remotely over videoconferencing software, video was also recorded, but not used for analysis. Each transcript was de-identified by the researcher,

and pseudonyms were created for all individuals and institutions mentioned by name, with a codebook being maintained on the researcher's password-protected computer. Analysis of the de-identified transcripts was completed using NVivo and Excel. Data analysis of the interviews occurred concurrently with data collection for the initial and follow-up interviews and was completed following the final interviews. Coding was completed using a series of cycles, with the first cycle of coding occurring after each interview using provisional coding (Saldana, 2015). The codebook developed using an initial set of codes that were expanded throughout the first cycle of coding.

The initial codebook included codes that describe the type and quality of support provided by support network members, the ways in which the relationship developed, the ways in which the relationship was maintained, reasons why relationships fail or are underutilized, and information regarding their post-commitment planning. Table 3 below lists preliminary codes and subcodes that emerged during the first cycle of coding.

**Table 3***Initial Codes and Subcodes*

Code	Subcodes	Description
Joining	TFA	Reason for joining TFA
	Math/Science	Reason for teaching Math/Science
Initial Plan		Teacher indicates their intended plan before entering the program
Frequency	Appraisal Emotional Informational Instrumental	Teacher indicates how often they are receiving a particular type of support
Student Description		Teacher provides a description of the types of students they teach
Teacher Task		Teacher describes a task required outside of the classroom for them to teach effectively
Member	Appraisal Emotional Informational Instrumental	Instance of the identification of a member providing one of the four types of support (appraisal, emotional, informational, instrumental)
Received Support	Appraisal Emotional Informational Instrumental	Teacher describes support they receive of a particular type
Challenge	Appraisal Emotional Informational Instrumental	Identification of a challenge, and the type(s) of support that describes the challenge
Support Quality	Low	Reference to a reason that a support is of low usefulness
	High	Reference to a reason that a support is considered to be of high usefulness
Relationship	Create	Reference to a reason why a relationship was created
	Maintain	Reference to a reason that a relationship was maintained
	Deteriorate	Reference to a reason that a relationship lowered in quality or frequency

	Drop	Reference to a reason that a relationship was ended
Support Format	Formal Informal	Reference to whether a relationship was started through a formal or formal process
	<Description>	Reference to what type of arrangement was used for interactions (e.g., meeting online, during lunch, or after school)
Plan	Leaver	Teacher identifies themselves as a leaver
	Stayer	Teacher identifies themselves as a stayer
	Potential Stayer	Teacher identifies themselves as a potential stayer
	Mover	Teacher identifies themselves as a mover
Updates	1 <sup>st</sup> to 2 <sup>nd</sup>	Teacher provides an update to how their work is going during the 2 <sup>nd</sup> interview
	2 <sup>nd</sup> to 3 <sup>rd</sup>	Teacher provides an update to how their work is going during the 3 <sup>rd</sup> interview
Intended Plan Factors	Reason	Teacher provides a factor that influences their decision-making process regarding intended plans
	Influencer	Teacher identifies an individual who influences or influenced their decision-making process regarding intended plans
	Change	Teacher identifies a reason for a change in their intended plans
	Confirmation	Teachers identifies an instance/reason that confirms their existing plan

A second cycle of axial coding (Saldana, 2015) followed the first provisional coding cycle. This coding cycle looked *across* the interviews, rather than within each one. In axial coding, a set of categories (axes or themes) and categories of categories in order to locate themes that emerge across the teacher interviews. In order to identify themes, the interview segments coded using the provisional codes were looked at as

entire group, looking both across participants and across the set of interviews for each participant. These themes were developed using the coded interview segments, the set of memos created after each interview for each participant, and the set of analytic memos stored in NVivo during the data collection and data analysis phases of the study.

In addition to the development of themes generated from the interview coding, the support networks of each teacher their intended plans were tabulated. The support networks were then summarized and visualized using sociograms (Borgatti, 2015), a tool used in Social Network Analysis to represent individuals' social networks. These diagrams account for not only the members identified as being members of the TFA teachers' support networks, but also the types of support provided, and the strength of the relationships developed by the teachers. These sociograms were used as a tool to support the understanding of the support networks as part of the axial coding cycle but were not analyzed separately as part of this study.

### **Trustworthiness and Validity**

Several measures were taken to ensure the trustworthiness and validity throughout. As mentioned earlier, analytic memos were written and referenced throughout the analysis process as a way of capturing and recalling thoughts regarding the current set of analyses and emerging themes. Post-interview memos were also written for each participant created during the interviews to note any observations I made during the interview. These post-interview memos were also referenced prior to each interview for preparation and were used purposefully to guide the conversation through the sets of questions (e.g., asking questions during the second interview about the current status of a

relationship that was mentioned during the first interview). Following professional transcription, the quality and accuracy of the transcription was checked by comparing the original audio file with the transcription. I fixed transcriber errors and entered in missing content where the transcriber was not able to hear/understand low-quality audio. The post-interview memos were checked for accuracy by comparison to the written transcripts before being used during the analysis process to aid in the creation of themes.

Following initial analysis, emergent findings were peer debriefed to check for internal validity of the results. To increase the internal validity of the findings, the de-identified findings were shared with the participants as a member check to identify any areas of the analysis that did not accurately represent their feelings/experiences. After addressing any peer and/or member concerns, the analysis of the interview transcripts, coded themes, post-interview notes/memos, and analytic memos were used to address the research questions, which are repeated below:

1. What support networks do the TFA teachers draw upon over the course of their second year? How and why were these support networks developed, used, and maintained during their second year?
2. What were the teachers' processes for developing their intended plans?
3. What was the role of the TFA teachers' support networks on their decision-making process during their second year?
4. How did the teachers' decision-making processes influence their intended plan trajectories?

## CHAPTER 4

### Results

This study aimed to understand the TFA teachers' intended plans as a time-varying trajectory that evolved over the course of the teachers' two-year commitments as opposed to a well-defined outcome that the teachers' reached at the end of their programs. Following their second year, five of the teachers decided to stay at their current schools (i.e., five of the teachers were stayers), and five of the teachers decided to leave their current schools to pursue other career options (i.e., the other five of the teachers were leavers). Of the five stayers, one of the teachers (Dorothy) was a lingerer, expressing an explicit desire to teach for a third year, but to leave teaching following their third year to pursue other career options. None of the 10 in the sample teachers were movers, choosing to teach in a school other than their placement schools.

As my goal was to analyze intended in terms of their trajectories rather the final decision exclusively, teachers were asked during each interview to discuss their intended plans at the beginning of the program (collected retroactively during the first interview), and at the time of each of their interviews. Based on their responses, teachers' intended plans were identified and categorized into the same categories as the final plans, with the additional category of *potential stayer* for teachers who expressed an openness to continuing in teaching, but no strong leaning towards leaving, staying, or moving at that point. The diagram below in Figure 2 summarizes the intended plan trajectories for the 10 participants. The teachers' intended plan trajectories have been sorted into leavers and stayers based on their final plans.

**Figure 2**

*Intended Plan Trajectories*

Category	Potential Stayer	Stayer	Mover/Leaver	Leaver
Key				

Teacher Name	Pre-Program Plan	Initial	Follow-up	Final
Akiko				
George				
Rick				
Jo				
Matt				
Dorothy				
Jamie				
Katherine				
Melody				
Paul				

Of the five leavers, two teachers (Jo and Matt) chose to pursue law school, two teachers (Akiko and Rick) chose to pursue other graduate programs, and one (George) chose to pursue a new job in curriculum development. As the diagram illustrates, the trajectories of the teachers are complex, with multiple shifts along the two years. It is also worth noting that these transitions reflect only a sampling of time points taken across the three interviews, and by no means capture changes that may occur on smaller time scales.

To provide a coherent narrative of the relationship between the teachers’ support networks, the teachers’ decision-making processes for their plans following their third year, and their intended plan trajectory over their two-year commitment, we will explore the experiences of three of the teachers in depth. The three focal teachers chosen each present an example of the three post-commitment plan outcomes represented in this sample. Table 4 below provides details on each teacher.

**Table 4**

Summary of Focal Teachers

<b>Teacher</b>	<b>Final Plan</b>	<b>Plan Category</b>
Paul	Stay at placement school for at least one more year	Stayer
Dorothy	Stay at placement school for exactly one more year	Lingerer
Matt	Leave for law school after second year	Leaver

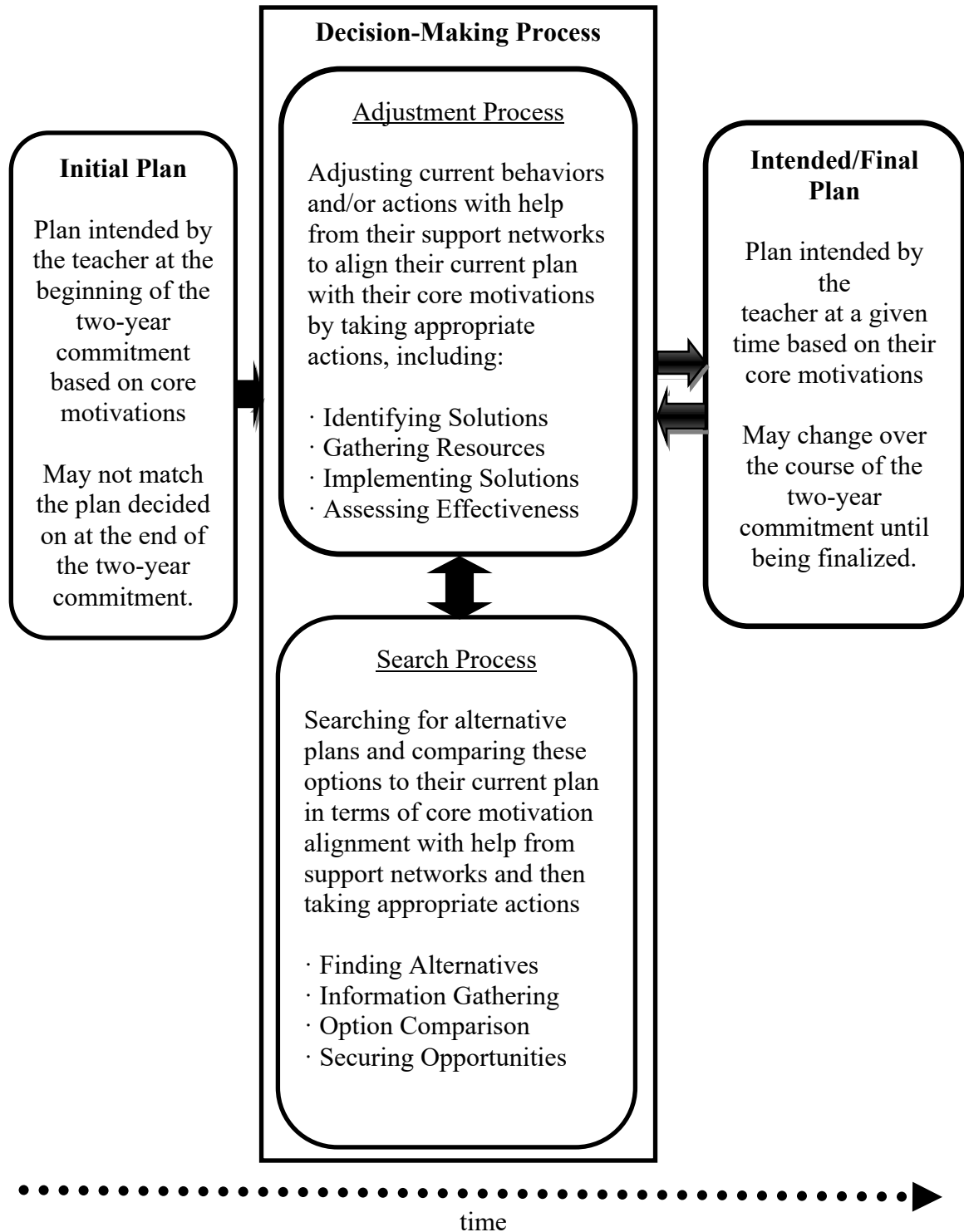
**Intended Plan Trajectory Development.**

Analysis of the transcripts across the ten teachers led to a model describing the components of the decision-making process, and the role that the decision-making

processes plays in the intended plan trajectory. Two critical factors that influenced the intended plan trajectory of the TFA teachers were the teachers' *core motivations*, and the teachers' support networks. The core motivations represent the personal goals and values that the teachers enter the program with, and which represents intrinsic motivations for the actions and decisions they make throughout their two-year commitments. Figure 3 below presents a diagram demonstrating the Decision-Making Process (DMP) model, which has been developed through analysis of the interview data from the 10 TFA math and science teachers to describe relationship between these constructs in the teachers' decision-making processes for their intended plans during their second-year.

**Figure 3**

*Intended Plan DMP Model*



This DMP model displays three major components that lead to the intended plan trajectory developed by each of the teachers. The initial plan reflects the intentions of the teacher when they begin the program, the DMP model reflects the evolution of the teachers' intended plans throughout their two-year commitments, and the final plan reflects the actual decision made by the TFA teachers at the end of their second year. In the DMP model, the decision-making process that the teachers undergo throughout their second year consists of two sub-processes, which I have named the *adjustment process* and the *search process*. The adjustment process consists of steps taken by the teachers to adjust their current plans (and their teaching itself) as they completed their two-year commitments, and the search process consists of steps taken by the teachers in order to develop alternative plans to their current plans, and to pursue and secure alternative options if deemed necessary. At a given time, a teacher may be engaged in both, one, or neither of these two processes. At any point, teachers can also engage in these processes flexibly, actively engaging in the processes simultaneously or sequentially throughout their second year

### **Focal Cases**

In order to understand the connections between the initial plan, the decision-making process, the final plans decided upon by the teachers, and how these components of the DMP model play out over time, I will present the stories of three of the teachers from the study. These three teachers have been selected to present a variety of initial and final plans, different choices regarding the development and use of support networks throughout their two-year commitments, differing uses of the sub-processes in the

decision-making processes, and a varied set of core motivations that guided them throughout their two-year commitments.

The first teacher we will follow is Dorothy, a middle school pre-algebra teacher placed in a Title I Massachusetts charter school in an urban school district. The second teacher we will follow is Paul, a science teacher (teaching Biology, Earth Science, and Chemistry) placed in an alternative school for students who have typically struggled in traditional schools. The third teacher is Matt, a high school Biology teacher, who chose to teach at the public high school he attended as a student. The next sections will present their reasons for entering the TFA program and teaching in their disciplines, and the development of their intended plan trajectories over the course of their two-year commitments, leading to their final decisions.

### ***Initial Plans.***

**Dorothy.** For Dorothy, the choice of becoming a math teacher through TFA was not one that she chose with full confidence of a longer-term potential for a career in teaching. Dorothy remarked that “I originally did not have teaching as a career option really in mind ever, but [in college], I was like, figuring out what to do.” She went to explain her process of considering law school as a potential option, pursuing that opportunity by interning in a law firm in the summer following her junior year in college. While this internship did not solidify her interest in pursuing a career in law, she recognized the importance of making an “impact in the community or doing something good,” and of finding a career that was “rewarding for [her] and for...the people I’ve been making an impact on”. From this, she went on to explain how she learned about the

TFA program through a friend who had been contacted by a recruiter. She stated that a subsequent conversation with the recruiter about their experience in the TFA program led her to the conclusion that she “agreed with the organization’s vision” and thought that a two-year commitment seemed like enough time for getting a “feel for the job” and also “some time for [her] to think about... how this can influence my decision to figure out [what] to do with the rest of my life. So, I thought this was [a] pretty good opportunity”. From there, she began her work at TFA, choosing to teach middle school math, because of her strength in the subject and preference with children of that age rather than elementary students who had “social, emotional, behavioral, [and] developmental needs” that she did not want to deal with, or older children who she felt she might be intimidated by because “they’d just older and bigger”.

For Dorothy, the program represented an opportunity to explore an alternative career option to law school that would allow her to make an impact on the community she served, which was a core motivation that influenced her decision-making throughout her two-year commitment. As she stated in her first interview: “It seemed like a two-year commitment [was] a long enough time for me to like, get a feel for the job, but also like some time for me to think about [how] this can influence my decision to figure out like what to do with the rest of my life. So, I thought it was like a pretty good opportunity”. For Dorothy, her uncertainty about her future allowed her to a more wait and see approach to her post-commitment plans. By using her two-year commitment as a trial period, she gave herself time to grow into her role of a teacher and assess the extent to which teaching would allow her to make an impact on her students. The opportunity to

satisfy her CM of impacting the community she served played a larger role in her decision rather than a desire to become a teacher per se.

**Paul.** Paul's decision to enter teaching through TFA came with more clear goals in mind. He entered the TFA program with an intention of staying in teaching if it continued to be a positive experience, with working towards the mission of "educational equity". He described this certainty in his future plans as being related to his age and experience: "I think it's different for other Teach for America people because like, they're coming straight out of college, and they're still trying to figure out what to do. I had a career prior to this and worked for three years, and in an industry I didn't really like." Because he felt that teaching would be a good career option moving forward, Paul used the opportunity at TFA as a way of changing careers. He chose to teach science because of his background and background in the subject area (having completed a degree in Environmental and Sustainability Studies). As he stated in his first interview when asked why he chose to teach science:

I really love science. I have a background in science. It was always something that I really enjoyed in school and like, my job. I had to understand what's going on around us. And also help [the students] to see, maybe you want to take action and like change things. So, that's why I chose science.

Paul entered the TFA program with a very different perspective from Dorothy. He entered the profession after having another career for three years that he was not satisfied with, which allowed him to have more certainty about his desires beyond his second year. As he stated in his first interview "I feel like the standard for me [was] 'I'm just going to stay here until I feel like I need to leave. And I haven't reached that point where it's like I need to leave.'" Thus, for Paul, his entry into the profession reflected a strong desire to

work on educational equity within the teaching profession specifically.

**Matt.** Matt joined the TFA program due to his former high school teacher reaching out to him and recruiting him because his name “was put on some sort of list.” Following a conversation with this teacher where he decided that he was interested in teaching, Matt decided to enter the teaching profession through TFA because this provided him with an opportunity to do so in a way that was preferable to traditional pathways. Matt mentioned during his first interview that his interest in teaching began because of his desire “to go back and give back to [his] community.” For this reason, he chose to teach specifically at his own high school and told the program that “[he was] not going to join until and unless [he] get the specific place [he] wanted.” They were able to arrange this, and so Matt began teaching at this school, although he did express doubt about teaching as a lifelong career “I didn’t want to go through a traditional program because I felt that would be too restrictive in a sense like I didn’t want to be like just a teacher for my whole life, I think.” For Matt, the TFA program allowed him to give back to his community, with the potential for remaining in teaching beyond his two years. For Matt, the choice to teach science came because his desire to teach at his school. Although Matt had a degree in Chemistry & Physics, he had to teach in Biology due to the openings available at his former high school:

[After applying to TFA] ... the person in charge of the hiring called me and asked me ‘would you rather teach chemistry, or would you rather teach anything [at your former school]?’ And I said, I will teach anything [at my former school].

For Matt, teaching represented an opportunity to teach and work with a particular community. This desire to give back to his community led to him choosing to teach a

subject that was less than optimal given his background so that he could have his desired location. By making this choice, he had an ideal arrangement that allowed him to embark on his two-year commitment in a manner that satisfied his core motivations.

**Role of Core Motivations on TFA Teachers' Initial Plans.** For each of the teachers, they were motivated to enter the TFA and teach in their disciplines for a variety of reasons. For the most part, the teachers' choices to teach in their content area related to their chosen disciplines (i.e., most of the mathematics teachers had quantitative backgrounds, and most of the science teachers had degrees in field related to – but not necessarily identical to the subject they taught). For some, the core motivations for entering the teaching profession through TFA related to belief in TFA's mission of promoting educational equity, teaching marginalized students, and/or investigating the potential of teaching as a long-term career in an efficient manner.

There was for some teachers, however, a disconnect between TFA's stated mission and the execution of the program. Akiko, a teacher who ultimately decided to leave for graduate school, described how she thought the program would be “more progressive” and looking at “structural oppression that has occurred in the educational system”, but that in reality, there was less “diversity, equity, and inclusion [focus] than I thought could be in TFA.” George, a teacher who also left his school after his second year (for a curriculum development position), said that he felt that the program had mixed messaging, where they tell teachers that they want them “to be a leader in [the] community”, but then they are not necessarily “going after the best and brightest” to take on these positions. For both of these teachers, the disconnect between the teachers'

reasons for choosing to enter the program and their perceptions of the actual experience created a tension that colored their experiences in the program.

Some of the teachers entered the TFA program without an intention in staying in teaching at all from the beginning of their two-year commitments. While she had both an interest and a background in business, she felt that pursuing business would not be enough, and she wanted to pursue something “in addition to it.” She said that they sold her on the intersection between business and education, particularly in TFAs mission to help create leaders. For this reason, she thought that the TFA program would be beneficial to her in gaining experience and she entered the program with the expectation that “the two-year requirement was all that I was intending to pursue.” However, during her first interview, she stated that she intended on staying for a third, and potentially fourth year, based on her experiences during year one, although she indicated that she did not intend on staying in teaching in the long term, so that she could pursue other goals in the long term. This intended trajectory aligned with her core motivations and longer-term goals of pursuing business after gaining more experience elsewhere.

Another teacher in the sample, Jo, entered the program with the specific goal of becoming involved in “intellectual property litigation”, and applying to law school after her second year. As a longer-term goal, she wanted to informing people about their property rights, and recognized that that her future career goals had “some aspect of education tied into it”, making a small foray into teaching a fitting intermediate step for her as she applied to law school. Ultimately, she was able to apply and choose a law school program where she could pursue her career of choice.

Across teachers, core motivations were critical to the teachers' decisions to enter into a two-year commitment in teaching and were essential to their intended plans as they began their two-year commitments. In some cases, like Paul's and Jo's, those core motivations were satisfied throughout their experiences (with Paul's goal being to continue in teaching longer term, and Jo's goal to be ultimately to transition to law school), and they were able to maintain their intended plans throughout the two-year commitment. On the other hand, other teachers, faced unexpected circumstances and challenges that caused them to adjust their plans during their second years.

### ***Role of Support Networks on TFA Teachers' Decision-Making Processes***

The support networks developed by the teachers in part results from the needs that emerged throughout their two years in teaching. The teachers developed their support networks based on their perceived needs, either with respect to their current teaching, or with their future plans, and leveraged these support networks strategically as they undertook challenges that they identified throughout their two-year commitments. These support networks also played variety of roles in their decision-making processes and their intended plan trajectories.

**Dorothy.** For Dorothy, she described classroom management as a significant challenge during her first year. From her first-year experience, she learned that classroom management was “something that you need to have set solid from the beginning, otherwise the rest of the year is really difficult”. She felt that these struggles led to her not being able to “bring them to their potential in terms of their academic progress”, and so she focused on dealing with this challenge during her first year. To deal with this

challenge, Dorothy mentioned her ability to learn some material around behavior management from both the TFA Summer Institute and from an Introduction to Curriculum and Teaching course in her master's program. However, she stated that her biggest improvements in classroom management came from her ability to follow a logical behavior management system at her school, and through feedback received from her peers and supervisors at the school, who were useful because they were effective at "figuring out what works best for certain types of students or certain groups of students." Using this combination of informational support regarding policies and appraisal support regarding her behavior management strategies from her peers, she learned to deviate from the rules as written at times when deviation would lead to a better outcome compared to following the standard policies. The impact of this was a better relationship with her students, leading to a much better classroom environment: "[This year, classroom culture] just feels so much more stable [and I] feel like I have control of the classroom when I walk in every day." When dealing this her challenge of handling behavior issues in her first year, Dorothy was able learn about formal behavioral structures with her supervisors and peers, discuss potential deviations for official policies, implement these alternative approaches to behavioral issues, and then adjust her new system over time to improve her ability to deal with the challenge. Over time, she was able to find a system that worked for her, and she continued to use this system throughout her second year.

As Dorothy was able to successfully navigate her behavior management challenges as she developed more knowledge and experience, and with the help of her support network, she began to undertake new challenges that she was now ready to

tackle. Dorothy expressed a strong interest in her interviews in growing as a teacher to have a greater impact on her students and their learning. In her second interview, she mentioned that she was able to focus on new questions such as “What is the best way to engage them?” and learning how to help her students with teaching more advanced mathematics content. Dorothy mentioned that her students were particularly struggling with the pre-algebra unit, working on content including “solving one step equations, ...setting up equations [for word problems], inequalities, graphing [and things like that].” She mentioned that this content was “abstract compared to all the math that they have been doing before,” which made this unit difficult for her students. For Dorothy, her focus on these issues were rooted in a desire to increase the impact she could make on her students’ learning.

To deal with these new questions, she mentioned her Manager of Teacher Leader Development (MTLD) from the TFA program, an ELA teacher who taught the same students, and her co-teacher Katherine (another teacher in this study) as being the most useful resources for receiving feedback on her effectiveness on teaching. On the other hand, she stated that she felt that her principal was not observing her and giving her feedback consistently enough, and so they were less useful in helping her work on this challenge. She stated that it would be “nice to have more consistent [feedback]”, but that it was limiting to receive appraisal support from people who were not in her teaching environment: “I think there’s also limitations in bringing in a video and [showing] it to [a] totally outside person.” Dorothy’s principal served as her math coach as well, completing observations and providing feedback on lesson plans. She stated that having

her math coach also being her principal created some challenges: “I think part of having a principal as your coach is that she’s just so caught up in so many other responsibilities...so I feel like observation [and] feedback from her are less consistent than it could be.” This led to her relying less on her principal/coach for appraisal support, and instead choosing to use the support of her MTLT, who did regularly observe her teaching, and the two previously mentioned teachers as her top resources for support with improving her teaching effectiveness.

Dorothy also had additional support network members that she could rely on throughout her two-year commitment. She was able to continually work with a 6<sup>th</sup> grade team, consisting of her co-teacher Katherine (another math teacher interviewed in this study), as well as other teachers teaching her grade level (which also happened to include her roommate Akiko, one of the science teachers interviewed in this study). They would regularly meet at work and, outside of work, review classes that they taught together and lesson plan for future class sessions. However, the entirety of the team met regularly and assisted her with her support needs as well throughout her two years in teaching. Through direct instrumental support on her teaching materials and appraisal of the effectiveness of previously implemented lesson plans, she was able to find ways to make a bigger impact on her students’ mathematics learning. Following the COVID-19 pandemic, Dorothy chose to continue to work closely with her co-teacher Katherine and the ELA teacher, noting that their ability to collaborate actually *increased* following the transition to remote learning, as the switch to virtual meetings allowed them to work together for more times because of a freer schedule. By doing so, they were able to continue to work on

their teaching together in the remote learning environment.

**Paul.** Paul also described his use of his support as he worked on challenges he faced during his two-year commitment. His experience, however, differed tremendously, in part because of the non-traditional school he was placed in. His school was also in a transition phase during his two-year commitment, making significant changes to their curricular and pedagogical approach. During Paul's first year, his school focused primarily on a system using asynchronous work, allowing students to work independently at their own pace. In order to do this, Paul had to learn the way the school did things and develop materials based on this system. However, in his second year, the school doubled in size and changed to a new competency-based model.

As he worked through adjusting his teaching during his second year to accommodate the new teaching model he was expected to follow, there were multiple members of his support network that he found to be useful. He was able to great a lot of useful informational support from his university, mentioning his general instructional methods and his science methods graduate work as providing particularly useful information on how to work on his teaching. He described the benefits of these courses coming from "hands-on and specific tools" that they used to practice actual teaching routines and the use of notes and videos to reflect on his teaching practice. On the other hand, he described other courses that were primarily lecture based as not being particularly engaging and/or useful to his ability to teach effectively.

Paul received useful appraisal support from his principal and vice-principal. They both provided him support through meetings following observations and by reviewing his

lesson plans. He mentioned in particular that his first year had “a lot of learning curves”, but that his vice-principal “would always be there to like run things through with me and look at my lessons and give me feedback.” This support continued through his second year as he worked on developing the new competency-based model.

His support network also included peers at his school. Paul mentioned receiving a lot of support from a professional learning community at his school that he worked with throughout his two years. They would assist him with particular challenges that he was facing during weekly meeting. He found that his professional learning community was effective in providing appraisal support because he received “really honest and good feedback” and that this support was particularly effective and readily available because the professional learning community was a place where they “all understand that we want to grow and improve”. Paul also mentioned an English Language Arts teacher who he worked with throughout his teaching when he needed support with differentiating his materials for his English Language Learners. This relationship, unlike the one formed with his professional learning community, Paul’s relationship with this English Language Arts teacher developed more through informal meetings initiated on an as-needed basis rather than through formal, scheduled meetings.

Paul mentioned mixed success with getting appraisal and informational support from his MTLDs as he worked through his first and second years. He mentioned that he had a different MTLT for his second year and that he preferred his first MTLT because she “wasn’t as overwhelmed”, whereas the second had “a lot of stuff going on”. Although his second MTLT was not as active as his first, he did mention that he appreciated the

fact that his second MTLT had a background in special education, which was useful for support with working with some of his students. As Paul's goal was to become a more effective teacher in the long term, the information he gathered from this MTLT was particularly useful, as it provided him with a source of information that would have otherwise been inaccessible to him with his current support network. By gathering this information and adjusting his teaching based on what he learned, Paul found ways to increase his ability to teach some of his students more effectively.

The support available to Paul at TFA and his university was generally used effectively, but still was not sufficient to satisfy his desire to create materials that were of a quality that he was happy with and differentiated appropriately for all of his students with diverse needs. Because his support network was not able to support him in adjusting his materials for his students to the extent that he felt satisfied with, Paul had to do a lot of independent work, creating his own materials on his own, before bringing this work to his support network for review. When asked about how he had been locating these materials throughout his second year, he stated:

So, a lot of it was Google searching. So, since I'm the only science teacher at my school, there wasn't other people there to develop a science curriculum with or get resources from. So, I would talk to some of the teachers at [the other high school in the city] about their science curriculum, but we were doing different things.

Here, we see Paul describing the need to find other teachers outside of his school for additional informational and instrumental support as he worked on modifying these lessons. He made contacts with teachers at other schools to obtain their curricular materials, and then worked on modifying these for his students. Because these teachers

worked at different schools, however, it was still necessary for Paul to take on some additional work as he adjusted these materials. He would bring these new materials, created through outlining and adapting of these outside resources, to his principal and vice-principal and work on them with them. Paul stated that this process became more refined over time, and his second year became easier as he continued to gain experience working in this way. Through a combination of finding new support network members and independent work, Paul was successful in leveraging his existing support network to accomplish his goals as he worked on improving his materials for his students throughout his two-year commitment.

**Matt.** During his first interview, Matt described that his students were mostly English Language Learners, and that learning Spanish was something that he did on his own in order to facilitate his teaching (he had some basic knowledge of Spanish already, having taken it in high school). By taking this initiative, he was able to communicate more easily with the students at his school. Matt mentioned that a particular goal of his was to learn the Spanish translations for scientific terms, which he used to facilitate his teaching.

Throughout his first year, a challenge that came up was frequent issues related to behavior management, which he struggled with greatly during his first year. As he explained:

The first year was very, very difficult for them and I remember I like would leave from even starting at the Teach for America [Summer] Institute, I would like leave and go back to our dorms and I would feel like I haven't taught anything. And the students aren't learning anything. I am a complete failure at this. This is terrible. And that feeling persisted probably through there after the winter break, didn't really get better until the beginning of my second year.

To make it through his first year, he needed a lot of support in order to become more effective at teaching his students. He attributed his ability to grow as a teacher to his BU coursework, part of which was attributed to the course content. However, he mentioned that his courses, which were designed to be taken by TFA teachers specifically, created an environment the TFAs could use for emotional support, enabled by the professor. Matt described a professor in a course that he took in his first semester purposefully gave them time to talk about how they were doing:

[A lot of how I got through the first year was] because of the fact like the classes we took were all Teach for America people. [Everybody] from Teach for America had the same group of friends from our Summer Institute into the first class and into the second class. And now into the class I'm taking right now. [And] they literally come in to Boston on Wednesday nights and for the first 20 minutes of class or maybe the first 30 minutes of class, our professor [would say] 'tell me how you are' and I think that really helped us.

He described this opportunity as “a lot of venting”, where it was helpful to hear that others were having similar struggles. He also mentioned that some the TFA teachers would share materials with each other, but he had a hard time because he was teaching a very specific subset of students. As he put it, no one was able to give him materials because he was teaching “biology for newcomer students who just entered the country”, and so any materials he received would need to be changed significantly. As a result, he chose to create his own curricular materials that were appropriate for his students. They ultimately worked on these materials with another biology teacher at their school (who was not in the TFA program). Because they taught the same grade and the same types of students, this partnership was especially useful to both teachers. They set aside a weekly time, and they continued to work together throughout the two years. In their second year,

they worked towards adjusting the materials further to align with the Next Generation Science Standards. Although these standards existed during Matt's first year, they "weren't thinking about it then." Matt and the Biology teacher spent a great deal of time throughout their second year in order to work on this alignment process.

When asked about observations and feedback, Matt mentioned that the three individuals that had observed him were the biology teacher mentioned above, the principal, and his MTLT. The biology teacher, however, stopped after his first year, because the requirement for a mentor was only required for one year (and they chose to continue working together in their second year outside of this arrangement). He stated that his relationship from his principal was extremely useful, and those observations "are the places where I made the most growth and development as a teacher." He found their meetings, where they would discuss the effectiveness of the particular lesson that was observed, as being helpful both in terms of classroom management and in terms of teaching the content more effectively. Although the principal was from an English background, rather than Biology, she was able to help him with general pedagogical information, allowing him to take the lead on the Biology content aspect. This trust from his principal was important to him, and he mentioned that a particular exchange that stuck with him was that the teacher told him "you're the one who knows your student best" during one of their meetings when discussing changes he wanted to make to his teaching of Biology content in a way that was different from the other Biology teacher.

When discussing his MTLTs, he mentioned that he did not see his first-year MTLT very often, and that he found his principal more helpful. For Matt, the lack of

regularity of their meeting was an influential factor in how he viewed that relationship. When asked about his second year MTLT, he mentioned that their interactions were especially helpful at the beginning of the year, but that their meetings became less useful over time because, as he described it, they “stopped focusing on my teaching and started focusing on my general health and well-being...I probably would have preferred to focus more on how to teach.” Although he felt that the relationship was less useful over time, he said that he just “went with the flow” and didn’t bring up any concerns because he felt that he was given enough appraisal support from his principal.

While Matt described how he was feeling better about his second year than his first year in the initial interview, he mentioned new challenges that emerged during his follow-up interview. He mentioned a new “curricular initiative”, through which the school wanted him to create new materials that allowed students to dive deep into the material. This created extra work for him and the Biology teacher, who spent time every day working on preparation for class, even working through their vacation to prepare. He mentioned that his principal, because of her lack of Biology content knowledge, was not able to be much of a help as they worked on these materials each week. During this interview, he described that he had “half given up a little bit” and was “gliding day-by-day getting through it now”.

For emotional support through these challenging times, he continued using his TFA peers for support, and mentioned a TFA math teacher at his school as being a particularly useful source of emotional support. They would support each other by venting about their challenges using informal meetings after school in their offices at the

end of the day and sometimes meeting outside of school as well. Although he said that he loved working with the students, these challenges made his day-to-day life very difficult, which led him consider law school as an alternative career option that he felt would allow him to do work that was important to him.

### *Final Post-Commitment Plans*

For each teacher, the final plans developed throughout the course of their two-year commitments. Their final plans were a result of their efforts to adjust their current teaching practice and/or look for alternative plans. The intended plan trajectories ultimately developed as an attempt to align their future plans with their core motivations and were influenced by their support networks as they worked through their decision-making processes. The following section describes the factors described by the teachers as most influential throughout their two-year commitments.

**Dorothy.** Dorothy's intended plan trajectory was very dynamic, changing at multiple points throughout the second year. During her first interview, Dorothy indicated that her first year was quite difficult because of behavior management issues, but that her second-year was better, leading her to believe that she had the ability to teach effectively and make an impact on her students: "I felt really confident in my ability to actually teach and make an impact on the kids...And that in and of itself was really rewarding." Due to this increase in confidence, she stated that "[she] would say on a scale of 1 to 10, [she is] feeling like a six or a seven on staying for at least one more year", but that she also felt that, due to the stress and burnout due to the workload, "I'm more than confident that I'm not going to stay a teacher forever or more than like three or four years." In her second

interview, Dorothy began to express discontent with how draining teaching had become for her. She stated that “every day just feels tiring and not as rewarding”, and that she had “hit a wall” with her progress. She also said that she began “thinking about the career options” and looking at what the requirements would be for those opportunities.

Although she did not think she would stay in teaching in the long term, she described factors influencing the decision she had made to not search for other opportunities at that time:

I don't think I [love] the art of teaching [to account for] all the daily struggles. And then another big reason [for staying for a third year] is just like job security [and] we will be getting a pay raise next year and right now, with getting my masters at [the university], finding a job right now doesn't feel like something I can like really put enough effort into and like time and energy into.

From this excerpt, we can see that the time and energy involved in job searching influenced her decision-making about pursuing other opportunities at that time. During the same interview, she mentioned some factors that she was considering as reasons to stay in spite of these struggles:

[My plan is to] advance my career here for now because like if I say one more year that's like another year I can potentially be in like a leadership position or like do something else over the summer and I think that experience will also be more beneficial when I transition to a different career or something [that's] not teaching later on in the future. So, for a lot of different reasons, I am thinking staying a third year would be in my best interest.

At this point, her reasons for staying were more related to an interest transitioning to a career that may better prepare her to satisfy her CMs in a different way. Although her plans remained uncertain, an interesting development during the second interview was that he expressed that the plans of her co-teacher Katherine (pseudonym for another participant in this study) were highly influential in her decision-making process.

[I feel] to some extent that my decision is contingent on [Katherine]'s next year plans because if she leaves, I will probably also like strongly consider leaving. Mostly because our school [has made] a lot of progress, but it's still really difficult as a [general education] content teacher because they have a lot of responsibility, a lot of lesson planning, managing classrooms and so much [more] but it feels like support is limited inside the classroom. So if I didn't have a strong co-teacher like [Katherine], I would be like...it just will be everything [is] worse, on top of all the stress. So, I definitely say I am strongly considering staying if [Katherine] is also like leaning towards staying.

Ultimately, both Katherine and Dorothy chose to stay on at their current school for a third year, and for Dorothy, this decision was based on a few factors. While Katherine's choice to stay contributed to this decision, her choice to stay was also based on her continued uncertainty for longer-term plans, and because her desire to continue supporting her students following the COVID-19 pandemic. As she states in her final interview, her reasons were staying in part were due to "lacking clarity on what [she] really wanted, [and because the] students will really need someone who like knows the community [and] the job, especially coming out of a pandemic." While she decided to stay on for a third year, her experience in education led her to the conclusion that teaching would not be the best option for her in the long term: "I do feel confident that teachers have the power to make really significant impact on systemic inequity in education. I don't personally feel like I would be super satisfied with that and I want to be able to [be super satisfied in my work] ...I would definitely want to explore other ways that I can make an impact on a more systemic level".

While Dorothy did plan on completing a third year at her school, she also decided to use this time to study for the LSAT exam, intending to continue on to law school after her third year. She considered alternative option of pursuing a career in law rather than

education from the very beginning of her two-year commitment but decided that law school would be better for her in the long term compared to her options in teaching. She had actually revealed in the final interview that she had taken the LSAT prior to joining TFA but opted not to pursue that option at that time. However, her experience in education led her to the conclusion that teaching would not be the best option for her in the long term. Thus, while Dorothy's plans led her to decide to linger at her school for a third year, she ultimately decided to move on from the profession after completing her LSAT and entering law school after her third year, pursuing a career that would allow her to satisfy her core motivations more effectively.

**Paul.** For Paul, who began the program intending to continue in teaching, there was little deviation from his original plan. When asked about his plans in his final interview, he stated the following:

My plan is to stay [in teaching] at least – right now, it's looks like five or six years. And my family and wife's family are from the west coast, so eventually we want to move back closer to them. And so, that's just kind of the timeline for when it would be good to move back and start saving up money and stuff like that, but I don't know. If we had family out here [in Massachusetts] and it was closer and stuff like that, I wouldn't really have any plans on leaving anytime soon. It's just like other personal stuff [impacting the plan to move].

As we see here, although Paul planned on staying in teaching, his longer-term plans were also influenced by his support network, although in his case, it related to his personal connections rather than his professional support network.

The one factor that did impact his intended plan trajectory in the shorter term was that his principal provided him with an option of changing from a science-only teaching role to one that would include mathematics teaching as well, due to the hiring of another

science teacher at his school. Although Paul agreed to this change in role, the COVID-19 pandemic led to the stalling of the hiring, which led to Paul's role staying the same for his third year (with the understanding that this new role might be an option later on). Thus, Paul ultimately continued along the trajectory that he entered the program with, with longer-term plans that extended beyond the third years based on his core motivations and his personal support network.

**Matt.** Matt's career plan development began with an intention of teaching at his placement school specifically and desiring to give back to that community specifically. Although he entered the program with an interest in the teaching profession, his experiences led him to believe that teaching was not the right career for him. He stated in his first interview that he could have seen himself teaching for "at least a third year, if not a fourth or fifth year", but that the "reality of the day to day is really frustrating, [and has] made it made it like impossible to want to stay." In addition to feeling that the work itself was a struggle, he also felt that compensation was also a factor leading to the decision to leave teaching. In his first interview, he described the financial challenges influencing his decision-making: "It's very difficult to afford anything. I currently live with three roommates, and our lease is up in July, and they're both moving, and so I don't have a place to live next year [and it] would be a big hassle to find a place to live. I can't save up enough money to like get [first and last month's rent] and my deposit down for somewhere else. So, I don't have any family close by to my school and that makes it basically impossible." Although Matt decided to apply to law school, he did mention that he felt there was still some chance that he could stay at his school, if the circumstances

permitted: “I think it’s possible to change my mind. I think if I had more like hands-on support and [more] weekly meeting and support on like getting feedback [and lesson implementation], it would be possible, but I think right now I don’t see that happening”.

Ultimately, Matt did get into a law school that he applied to, and he chose to attend that school following his second year rather than staying on for a third year. When asked about his decision to leave during the second interview and his reasons for pursuing law school at that time, he said:

Yeah. I just feel like it's like it's something that I've wanted, like I felt like I wanted for so long that it'd be a disservice to myself not to pursue and now feels like the right time to pursue it just because of every, like all the things in my life were just kind of like coinciding at the right time.

And when asked why he did not want to stay at his school beyond his second year, he responded:

Interviewee: Because I mean I do like the school. I like the mission, I like the general direction. I just think it doesn't pay enough. The work is ever increasing with initiatives and things and it's going to get even more because a few weeks before the break, before like the winter vacation, our principal said that the district has given her the go ahead to basically plan a phase two of our school or our program to like make it bigger and kind of do whatever we wanted with it. And so that would have been like a full five-year journey.

Thus, his decision came as he recognized that teaching would not be sustainable for the long-term, and he felt that it was the right time to pursue his law degree.

**Comparing TFA Teachers’ Decision-Making Processes and Post-Commitment Plan Trajectories.** There were two key differences across the intended plan trajectories of the focal teachers that translated to the overall sample: (1) the number of times and extent to which the intended plans changed over the two-year commitment, and (2) the way and extent to which the teachers engaged in the adjustment and search

sub-processes of the decision-making process.

Dorothy's case demonstrated a very conflicted and dynamic intended plan trajectory. She entered the two-year commitment with uncertainty regarding her longer-term plans, and this conflict continued throughout her time in the program. Her second interview showed the strongest evidence of this uncertainty, where she simultaneously expressed reasons for staying a third year, reasons why she did not want to teach long term, and reasons she was choosing not to apply for anything outside of teaching. They seemingly conflicting feelings and actions reflected the challenges she faced throughout her two-year commitment in finding an alignment between her core motivations and a career in teaching. Ultimately, she decided to linger for a third year because that is what she felt would best serve her as she moved her career forward, and this decision was supported by the decision of Katherine, a key support network member, to stay at the school as well. Katherine's path was similarly complex, with Dorothy's decision being a key influence on her decision as well for similar reasons. This example highlights an important aspect of support networks, which is that the teacher themselves not only receive support, but also become members of their peers' and supervisors' support networks as well, and they have the ability to impact the decision-making processes of the individuals around them as well.

Paul's intended plan trajectory represents one of little change between his initial plan and final plan. His intention to teach long term was unmoved, even in the face of his challenges, and so he remained a stayer from the beginning to the end of his two-year commitment. His experience mirrored that of a leaver, Jo, who expressed an intention to

leave for law school from the beginning of her two-year commitment. For Jo, her intention was to join TFA for two years as she prepared to apply to law school to pursue a career as an intellectual property lawyer, and in spite of having success in her teaching, she continued along that path, accepting a seat at a local law school towards the end of her second year in teaching. This case demonstrates an important result of having a strong alignment between core motivations and intended plans. Even though there were many adjustments needed for Paul to teach effectively, there was little to no need for him to search for alternative plans that met his core motivations more. In a similar manner, Jo made many adjustments to her teaching throughout her second year but continued to apply to and enroll in law school without considering her performance or success in the classroom (or other potential career possibilities) as a major factor in her decision-making processes.

Matt's trajectory demonstrates a situation where his initial plan did not necessarily match his final post-commitment plan. While he entered the program with the intention of serving his particular community and expressed a willingness to continue in teaching beyond his two-year commitment, he ultimately decided against staying when he was no longer happy doing the work of a teacher. His desire to have a work-life balance that was never struck properly and a salary that made his financial situation challenging overrode his desire to continue teaching in his community beyond his two-year commitment. Although he was able to receive effective support to some extent, the alternative option he chose was one that ultimately was more appealing to him. In his case, he simultaneously engaged in making adjustments in the classroom to make

teaching more effective and manageable, as well as searching for and pursuing alternative options to decide which was best for him.

This process of comparing a career in teaching with the quality of alternative plans was shared with some of other teachers. Akiko, Rick, and George all chose to leave teaching after their second years, after deciding that alternative options were superior to their current teaching positions, even after making adjustments throughout their two-year commitments (leaving for graduate school, and a curriculum development position, respectively). Melody decided, after entering the program without an intention of staying as a teacher in a long term, to continue teaching beyond her second year. Her decision was made during her second year in part because of her success in making adjustments at her school that made her feel capable of being a successful teacher. Jamie, who was searching for alternative jobs throughout her second year, stayed at her current school. While she expressed that she did want to stay at her current school to some extent, her decision was also partially made because her alternative plans did not work out, with a key alternative job prospect falling through due to a COVID-19-related hiring freeze.

In all of these cases, the teachers' core motivations, support networks, efforts to adjust, and ability to find and secure alternative plans were instrumental as their intended plan trajectories developed over their two-year commitments.

### **Role of Support Networks on the TFA Teachers' Decision-Making Processes**

As the focal cases demonstrate, the TFA teachers developed support networks throughout their second year. Looking at the entire set of teachers, overall trends with respect to the roles of the TFA teachers' support networks on the decision-making

processes is described below.

### **Support Network Role in Adjustment Process**

As each of the focal teachers progressed through their two-year commitments, they encountered a number of challenges that required adjustments. Because of all the teachers were committed through their second year, these adjustments included those relating to their teaching for the rest of their second years. The steps in the adjustment process are to (a) identify solution(s), (b) gather resources, (c) implement solution(s), and (d) assessing effectiveness. After making adjustments, the teachers were able to either create new practices that were effective, or to continue to adjust as they found ways to improve their strategies further. These challenges were faced by the teachers with differing levels of success. Some of these challenges were resolved satisfactorily, and others remained challenges throughout the teachers' two-year commitments.

The challenges that the teachers focused on, and the support networks that they developed and used appeared to be aligned with their core motivations. For example, Dorothy's core motivation of being an effective teacher led her to choosing to focus first on behavior management and then on instructional effectiveness. As a result, she focused her time and energy on developing and using support network relationships that aligned with these core motivations. For Paul, his goal of revamping the curricular materials led him to develop new relationships when his existing support network was not adequate for meeting his needs. The teachers' effectiveness in part depended on their ability to leverage their support networks and other resources to meet those challenges.

For all three focal teachers, the teachers' content area also played a role in both

the types of adjustments they needed to make, and the way in which their support networks were developed and used in response to adjustments that were attempted. For Dorothy, her co-teacher Katherine was readily available as a support as she grappled with teaching the more difficult mathematics content to her students. Through the use of her close relationship with Katherine, they were able to work together through teaching the difficult content through their regular meetings in and out of school, including after the transition to remote learning. Similarly, Matt had to adjust his teaching and materials in order to align to the Next Generation Science Standards. Matt was able to leverage his support network as she worked on this challenge, primarily through the use of the biology teacher at his school. The strategy of finding available support networks who could provide content specific information and instrumental support was widely used by teachers across the sample, provided that such support network members existed and made themselves available to the TFA teachers.

On the other hand, Paul was, as the lone science teacher at his school, not able to find support within his school to help with content related issues. This created a situation in which he had to make use of two main strategies: (1) completing work independently to gain information and create materials, and (2) developing new relationships in order to satisfy an identified support network need. For Paul, he established relationships with science teachers in other high schools in the area. The expansion of support networks strategically to meet identified support needs was also used by other teachers in situations where their support network did not have available resources that were readily available.

Across teachers, the support network available to them was influential in both the

strategies the teachers' used to meet their challenges and their ability to successfully undertake these challenges. In some cases, teachers approached the challenges by growing their support networks in ways that increased their capacity to meet the challenges they were focused on at a particular time. These relationships tended to continue as long it remained useful, and they tended to deteriorate or be dropped as the support was no longer needed. In the cases of support network members for which support was structured (e.g., formal observations by instructional coaches), the quality of the support and the amount of use of these support network members were related to the match between the skills and knowledge of the support network member and the teachers' perceived needs.

Support network members were used selectively by the TFA teachers based on their usefulness and skill set. Across teachers, the types of support provided were not spread equally across the support sources (i.e., their university, their school/district, and the TFA program). The trends with respect to sources used for each support type and factors influencing usefulness are presented next.

### *Appraisal Support*

For all teachers, appraisal support was provided to some extent by the MTLT assigned to the teacher by TFA. There were mixed results in terms of the effectiveness of the MTLT in providing useful support. For example, Matt mentioned in his second interview that his MTLT met with him outside of their scheduled observations and provided much needed support when he was struggling:

I think after our meeting, I reached out to her saying how frustrated I was feeling and so she came in and like worked with me and like it went really well and like

kind of helped propel me through the end of December.

On the other hand, Katherine mentioned while her first year MTLT gave “really helpful feedback” and was an “enjoyable person to be around”, her second year MTLT was “new to being an MTLT, so they haven’t given much feedback”. A common issue mentioned across teachers was that the level of appraisal support from the MTLT diminished after the second year, when the MTLT role was significantly shifted towards helping the teachers obtain their licensure, rather than providing support more directly related to effective teaching.

Teachers also received appraisal support from staff members at their schools, which included their peers, coaches, and/or their principals. Effective appraisal support generally came from support network members who had skills that were relevant to the areas in which teachers desired for support. For teachers who had content related questions/challenges, appraisal support was most useful from support network members who had the appropriate content area background. For teachers who had more general instructional effectiveness issues or behavior management problems, support network members with relevant knowledge, regardless of content background, appeared to be useful. The perceived level of time the support network had and made available to provide feedback and meet with the teachers were very influential in the extent to which the teachers utilized these support network members.

### *Emotional Support*

Emotional support was the least mentioned type across the teachers, although the teachers mentioned emotional support related issues (e.g., feelings that were not effective, a lack

of growth as teacher, inability to resolve challenges effectively, stress, burned out, etc.) quite frequently. This support type appeared to be less available than the other types. In general, the two most common support network members used for emotional support tended to be peer teachers, and fellow TFA corps members.

Peers were generally described to be ideal for emotional support for two reasons: (1) they were able to show empathy when discussing shared struggles, and (2) the TFA peers were most comfortable talking with peers about their struggles. Akiko described the TFA university classes as being helpful in part because it provided an opportunity for the TFA students to commiserate together.

Teachers were not always made to feel that they were respected professionals, however. George mentioned during his interview that he felt that his school was not being forthright about the desire to terminate the principal during his second-year, and a feeling that this decision was disrespectful on the part of his school. There was also a decision made during COVID-19 to pass all students during the 4<sup>th</sup> quarter of the school year, which had negative effects on the students, in his opinion. This choice was not made with teachers involved, and that “most of the teachers felt the way I feel” about the effectiveness of the policy. Jamie mentioned during her second interview that a special education teacher she worked with closely during her first and second year did not appear to trust her during her first year because of the frequent turnover that the more experienced teacher witnessed at the school. However, she felt that this relationship was “much smoother” in her second year because the spec “learned to trust me more.” This example highlights the importance of relationship building for both the teacher and the

support network members they are working with.

### *Informational Support*

Informational support was provided to the teachers for a variety of reasons. As the teachers were new, part of the information needed related to institutional knowledge, such as policies and/or political knowledge. For this support, the administration and experienced peers were most useful. This support need decreased over time as teachers began to understand the school/district, the community, and the student body better, as evidenced in Dorothy's case above.

Other informational support that was commonly needed by teachers related to their content and pedagogical knowledge. This type of support is a particular need for TFA teachers because of their lack of a traditional educational background. The predominant sources of this type of informational support consisted of university coursework, professional development opportunities at their schools and through TFA, and the TFA Summer Institute that the teachers participated in at the beginning of the program. The effectiveness of these opportunities was highly dependent on the needs of the individual teachers. Often, teachers in unique contexts (i.e., those with non-traditional school models such as Paul or Jamie) did not find these opportunities as useful as they tended to focus on contexts that were different from those of the teachers, making the information less relevant and transferable (or at least the teachers perceived that this was the case).

### *Instrumental Support*

A need for instrumental support was mentioned very frequently by the teachers. A need

for high-quality, context-appropriate curricular materials was mentioned by many teachers. One of the biggest struggles for the teachers was a lack of time, leading to poor work-life balance, and the time spent lesson planning, creating materials, and differentiating those materials was commonly cited as a time sink. Instrumental support was provided by a wide variety of sources, and typically the set of support network members used for this type of support related to the available resources at the school/district where the teacher worked.

For teachers with support network members who worked with teachers who taught in the same area, their co-teachers, peers, and subject area/grade-level teams were useful for these resources. When these were not available (e.g., when the participant was the only subject matter teacher at the school), the principal/other administrators were also consulted for help. If neither of these were available, teachers typically searched for support from their MTL or other TFA connections, or searched for resources on their own (e.g., through Googling for materials). Some teachers chose to design or search for their own materials without seeking any additional help as well. This option was more feasible for teachers who had more expertise in their teaching discipline and was less approachable for teachers for whom content knowledge was lower. In these cases, teachers were more inclined to seek help from more experienced/knowledgeable support network members.

Although it is possible for teachers to make no adjustments whatsoever, it was generally the case that teachers were making some effort to change their behaviors/actions in ways that aligned with their core motivations. Their goals for

adjustment included improving their teaching practice, gaining useful skills, and/or improving their work-life balance, among others.

### **Support Network Role in Search Process**

In the search process, support networks are used very differently. While the teachers' support networks were used in the adjustment process to support their teaching in some way, the use of the support network in the teachers' search processes was specific to the particular alternative options that the teachers were pursuing. For opportunities within the school/district, support network members within the school/district would provide information to the teachers regarding alternative options in one of two general ways: (1) they approached the teacher with an opportunity (like in Paul's case, where there was a modified role available), or (2) the teacher sought out new opportunities within the school (like Katherine, who asked to be switched to a special education role, but no opportunity was available). For teachers seeking opportunities outside of the school, they often chose to locate options through TFA connections for jobs (e.g., the alumni network), or through their own search process (e.g., on job websites and/or looking at graduate programs).

As the teachers weighed their options, they reported different individuals that they discussed these options with and reasons for including those support networks in their search processes. Often, TFA peers were described useful to the teachers as they discussed their options and decision-making processes because of their similar situations. Support network members were also included in the decision-making processes for more practical reasons, for example, Akiko asked her MTLT to provide a letter of

recommendation for graduate programs she was applying to.

Some teachers also made conscious decisions to not involve others in their decision-making processes. Jamie reported not discussing her consideration of leaving her school with her peers because “they are all so happy and it’s not like I am not happy, but they [know] they are going to stay. Like everyone knows they are going to stay. So, I am like...I just keep that to myself.” Jo, a teacher who decided to leave following her two-year commitment for law school from the beginning of her program mentioned in her first interview that she was “not planning on discussing [her plans] with really anybody outside of my coach and department”. She went on to state her reasons for doing so:

We can’t really talk about like the stigma attached to it. I just don’t want kids to know because a lot of them [will be] heartbroken. They’ll be like ‘just wait until next year’. ‘[I’ll just say] ‘yeah’, but it’s one of those things, right? If you plan to leave, they think it’s because of them.

Similar to the adjustment process, the teachers used their support networks strategically in order to accomplish their goals. They chose support network members selectively to involve in the process depending on who they found to be the most useful for their particular needs (whether it was emotional support from peers, or instrumental support in the form of letters of recommendations). The alternative options that were investigated were related to the teachers’ core motivations, and the options that they chose ultimately were the outcome that aligned best with their core motivations by the end of the two-year decision-making processes.

In addition to securing job offers or gaining graduate program acceptance, the other factor that strongly influenced the search process was the COVID-19 pandemic,

which, in some cases, limited options and/or ended particular opportunities. For some teachers, the COVID-19 pandemic created a situation where alternative plans fell through, which created a situation in which the teachers either needed to continue teaching or find other alternatives that would be possible given the new circumstances. For George, the lack of job opportunities delayed his efforts to find a suitable alternative option, with his decision to take a job in curriculum development not being decided even at the time of his third interview in June (this information was gathered through a follow-up email during the summer).

In Jamie's case, alternative options falling through was a factor that helped lead her towards staying. During her interview, she stated that it was still possible she would have stayed in teaching even if an alternative offer she had sought out had not been retracted due to COVID-19. However, she expressed uncertainty in this, and it is impossible to determine what might have occurred had external circumstances been different at the point when she was making her final plans for her third year.

### **Conclusion.**

The core motivations and the support networks of the TFA teachers were critical in their decision-making processes. The core motivations played an important role in their initial decisions to enter the TFA program and teach in their discipline of choice, their decision-making around what adjustments to focus on during their teaching, and what alternative career opportunities they chose to consider and potentially choose at the end of their two-year commitments. The TFA teachers' support networks were essential in both the adjustment and search processes, providing the teachers with the support that

they perceived was most useful at the time. The support networks were used strategically by the teachers to receive supports of all types, with support networks members being used strategically based on the effectiveness of the support (as viewed by the TFA teachers). Support network members were generally chosen based on their availability and a match between the knowledge and experience they offered and the need that the TFA teachers identified as a support need. The teachers' perceived support needs were also impacted by the core motivations, with the areas focused on being aligned with the teachers' motivations with respect to adjusting their teaching and/or finding alternative plans for beyond their second year.

## **CHAPTER 5**

### **DISCUSSION AND CONCLUSION**

The primary goal of this study was to build upon the existing research on TFA teacher retention and develop a deeper understanding of the TFA math and science teachers' intended plan decision-making processes during the second year of their two-year commitments. The two key factors that emerged from the analysis as having a critical impact on the teachers' decision-making processes were their core motivations and their support networks. The decision-making process, which provided the mechanism for the TFA teachers' intended plan trajectories to develop over the course of the teachers' two-year commitments, took their initial plans and developed these plans over time, in some cases to drastically different outcome to that which the teachers intended or expected when they began the program. In this chapter, I will describe how the findings presented in Chapter 4 connect to the previous research on TFA teacher retention, implications for STEM education, and potential future directions for research on TFA teacher retention and support networks for novice teachers.

#### **Relationship to Existing Research**

In their meta-analysis of 120 studies on teacher retention, Nguyen et al. (2020) found that three sets of factors impacted teacher retention – namely personal factors, school factors, and external/policy factors. Their model presented connections between these three sets of factors and described the variables that each of these sets of factors consisted of. These categories were closely mirrored by the sets of factors described by Heineke et al. (2014) in their mixed-methods study on TFA teacher retention, where they

found and described the sets of factors influencing TFA teachers decision-making processes following their two-year commitments. As they noted, however, this work was limited by the “synchronic data collection at one point in time following the 2-year commitment” (p. 778) and the need for “additional research to explore what propels TFA corps members to stay in high-needs classrooms (p. 778).”

The findings of this study answer that call, presenting an analysis of the teachers’ decision-making processes over the course of their entire second year using three time points (supplemented by a retrospective collection of information regarding the first year). Additionally, the findings of this study add on aforementioned studies by both developing the connections between these sets of factors more and establishing a deeper understand which of the factors within each set were more influential in the TFA teachers’ decision-making processes for this set of teachers. The core motivations consisted both of elements that belonged to the personal factors related to the teacher characteristics (i.e., intrinsic motivations for their actions and behaviors) and the external/policy factors (i.e., extrinsic motivations for their actions and behaviors). The support networks were developed as a result of support needs, which related to personal factors connected to the teachers’ backgrounds/qualifications, and through the availability of support network members that provided the appropriate resources.

It is worth noting that while Nguyen et al.’s meta-analysis on teacher retention included career satisfaction as a relevant personal factor, it did not include teacher values/beliefs, which factored in significantly in the TFA teachers’ decision-making processes in this study. Furthermore, the environmental factors presented in this meta-

analysis included school-level organizational characteristics and resources (similar to other studies, e.g., Cihak, 2015), but this work demonstrated that the support networks available to TFA teachers went beyond the school-level, and so these findings suggest that these factors may be more complicated for TFA teachers, as their networks contain a wider variety of sources. In a more positive light, the resources and support networks available are larger and more diverse for these teachers and understanding how these larger networks function provides greater opportunity to harness these resources and use them more effectively for TFA teachers.

While Heineke and colleague's findings on TFA teachers did provide some understanding of the factors before, during, and after the teachers' two-year commitments, the design of this study allowed for a more profound understanding of how the TFA teachers developed their relationship with their environment (i.e., their support networks). Whereas this study was limited to the single time point, as mentioned earlier, this longitudinal study allowed for a deeper understanding of how these relationships grew and changed over time, as well as how the teachers' core motivations influenced their interactions with their environments throughout their two-year commitments.

Cordeau's work (2003) described a perception of principals that alternatively trained teachers required different supports than traditionally certified teachers. Because of the importance of the alignment between the support that teachers need and the ones that are provided to them another contribution of this study was that it provided insight about the specific support needs that TFA mathematics and science teachers needed. Because of discipline specific issues, and because of backgrounds that differ from

traditionally trained teachers, knowing the TFA math and science teachers support needs more deeply provides opportunities to target support more effectively.

On the whole, the findings of this study developed a deeper understanding of how the TFA math and science teachers developed their intended/final plans, presented the concept of intended career planning as a process rather as a single outcome (in contrast to Heineke et al.'s analysis of TFA teacher retention), and created a model for the TFA teachers' decision-making processes as time-varying, continually being used by TFA teachers throughout their second years. The final section will detail some of the implications of these findings, and potential future directions for research that can extend our knowledge of TFA teacher retention and novice teachers' career trajectories more generally.

### **Implications and Future Directions**

The findings of this study suggest a number of areas where TFA teachers require support as they begin their early careers. In some cases, these support needs were met by individual support network members. In others, they were met by support network members who cut across professional contexts. Unfortunately, there were also cases where the TFA teachers' support needs were not met because either support network members either failed to recognize those needs, failed to provide those needs on a satisfactory or continuous basis, or the required supports were simply not available. This variety of positive, mixed, and negative outcomes suggests the importance of the sources of support (i.e., the schools/districts, TFA, and the university) working together to create more effective networks of support for novice teachers. Without effective collaboration,

it is possible for needed supports to be limited in either effectiveness or availability, or to be unavailable entirely when needs are not identified or understood properly. This work presents a step in that direction, presenting the support needs and current use of support for this sample of 10 math and science teachers.

One way that the knowledge can be used is to either develop new supports or retool current support structures to match the needs identified by these TFA teachers that are not currently being met. One way to move in this direction is to develop methods of assessing TFA teachers' support needs during their two-year commitments. Because these support needs have been shown to change throughout the school years, it is of particular importance to assess these needs regularly, and to adjust available supports accordingly. By collecting this data at the teacher level, it may be possible to target supports strategically to meet individual teacher's needs. However, it is not known to what extent the findings of these studies generalize to the greater TFA math and science population, and so one possible way to move this work forward would be to design instruments that can be distributed to a larger population frequently (e.g., a short online or mobile-based survey) to assess support needs quickly and accurately.

Another area of investigation would be to determine the extent to which the findings for this group of TFA teachers would extend to teachers outside of these disciplines. While this study focuses on mathematics and science teachers due to these being areas with teacher shortages, research on the career planning of novice TFA teachers in other disciplines could be beneficial in understanding those teachers and the types of supports that they need, which may or may not align with their perceived needs.

As described in the previous chapter, each of the focal teachers pointed out discipline specific issues that influenced their experiences. For Dorothy, her challenges with improving her teaching were in part due to the challenges her students faced when learning more abstract mathematics concepts, and she had to adjust her teaching, with the help of her co-teacher, to teach this content more effectively. For Matt, he worked on alignment of his existing lessons with the Next Generation Science Standards, relying on the other biology teacher at the school as a strong support as they worked on this project throughout his second year. For Paul, he needed to create science materials for his nontraditional students in a unique curricular format. However, as the lone science teacher at his school, he was not able to obtain help from a subject matter at his school. While it may be the case that these discipline-specific challenges and support network needs for teachers in mathematics and science have similar analogs for other disciplines, further studies looking at teachers in other disciplines may be helpful in establishing the extent to which the findings in this study are or are not similar for teachings in other content areas.

Another potential difference between mathematics and science teachers and their counterparts teaching in other disciplines may be the extent to which they engage in the two DMP sub-processes, and how this engagement may lead to differential outcomes in career decision-making. As existing research has suggested that teachers in mathematics and science may have alternatives that are higher-paying than those in other disciplines (Carver-Thomas & Darling-Hammond, 2017; Goldhaber et al., 2021), they may be quicker to engage in a search process for alternative options and/or more enticed to

pursue these opportunities than teachers who have less lucrative alternatives available. A comparative study involving mathematics and science teachers and those in other disciplines may be able to shed light in sub-process engagement patterns across teachers based on their content area.

Another limitation of this study is that the longitudinal data collection spanned only one academic year. Future longitudinal studies on TFA teachers' decision-making processes could investigate from an earlier time point and/or extend beyond the two-year commitment and study their decision-making processes and intended plan trajectories for a longer period of time. For this reason, most of the relationships identified by the TFA teachers began prior to the beginning of the study. By starting earlier (perhaps even before the TFA Summer Institute), it is possible to look at the very beginnings of the development of the support network relationships. By investigating how the relationships first develop, we can understand how successful relationships can more effectively be developed from the beginning of the program. By investigating beyond the two-years, it is possible to observe how the decision-making processes might change after there is no commitment element that is influencing the process, and the intended plan trajectories can be tracked over a larger number of years. By tracking this data longer, it would possibly be the case that we can view how these support networks continue to develop, and what careers the TFA teachers' transition into if and when they finish their graduate programs, leave their next job, etc.

This would also allow for the analysis of the professional growth of teachers who remain in the field over time. In doing so, we would be able to see the extent to which

these novice teachers are able to impact the communities in which they serve. It is worth noting that teachers who remain in the field and/or involved with TFA become part of the support network for future teachers, so the role of these TFA teachers as part of others' support networks is a potential area of investigation as well.

An area that was not focused on or analyzed in this study was the TFA teachers' personal support networks. As mentioned in Paul's case, his personal support network was influential in his longer-term planning around location, and as a result, his plans for staying at his school. Personal relationships were mentioned by the participants from time to time, but were not focused on during the interviews, or in the data analysis for this study. Future work could look at the impact of the teachers' personal support networks as they complete their two-year commitments, and what role these support networks play on the teachers' decision-making processes. The analysis of the support networks in this study was also limited in that they focused exclusively on the teachers' perspectives of the support network relationships and the effectiveness of the support. However, it is important to note that support network relationships are not unidirectional. It would be worthwhile to understand the extent to which the TFA teachers' and support network members' perceptions of their relationships were similar or different. It may be the case that support network members, for a variety of reasons, do not share the same perceptions regarding their relationships with the TFA teachers, the TFA teachers' support needs, or the core motivations of the TFA teachers.

The inclusion of core motivations as a factor to consider in TFA teacher retention is important to both TFA teacher recruitment and support. In terms of recruitment, it is it

worthwhile to consider the extent to which core motivations can be assessed at the beginning of the program and can be used when selecting teachers for the program or when placing them. For example, while Matt found the curricular initiatives pushed by the school to move towards more inquiry-based learning during his second year as being extra work for him and a draining experience, teachers' who have an interest in curriculum development may find such a challenge has being important and rewarding. This requires understanding of the school's/district's/administration's priorities, as well as an understanding of the teacher's personal values and goals. By matching up teachers with environments that will challenge and support them in the right way, it may be possible to place teachers in environments where their core motivations can be satisfied more effectively. The design of a quantitative instrument could be useful in assessing the core motivations at the beginning of the program in order to support the matching process. This could also be used as a tool that could help assess the match between sets of core motivations and longer-term outcomes, providing a potential area of study into what sets of personal values and beliefs correlate with better longer-term outcomes.

One final direction for research in the area of decision-making processes is to consider the extent to which the findings presented here apply to populations beyond the sample of 10 teachers presented in this study. A limitation of this study is that the sample was limited in terms of geographical location, teacher certification program, numbers of years taught, grade bands, teacher content areas, and to a subset of a single cohort at a single university. While it is possible the set of teachers here demonstrate decision-making processes that are similar to larger populations that differ on some of these

aforementioned variables, more research would need to be done to establish any patterns that can generalize to any population beyond this sample.

### **Conclusion**

The goal of this study was to build on the important body of literature around novice teacher retention, focusing on teachers' who have been tasked with supporting the learning of some of the most marginalized populations in the United States. Through the development of further research in the areas described in this section, it is possible to further our understanding of how to recruit and retain more of these teachers who enter high-needs schools with the goal of helping to build up these communities. By understanding the motivations and needs of novice teachers, it is possible to create a community of dedicated and well-supported professionals that can make an impact on the communities they serve, and by understanding the role that the many stakeholders involved in math and science education play in this process, it is possible to develop new and improved strategies for creating more opportunities for high-quality mathematics and science learning opportunities for students of all backgrounds.

## APPENDIX

### Recruitment Survey

#### Dissertation Survey

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##### Start of Block: Inclusion Criteria

##### Q1 Informed Consent

This survey will be used by the researcher for a study looking into second-year TFA mathematics and science teachers' feelings around support and their decision-making process around their post-commitment plans. In addition to this survey, selected teachers will also be invited to participate in three interviews (up to 60 minutes each) throughout the 2019–2020 school year. You will be asked during the survey if you are also willing to participate in the interviews, if selected.

It should take about 5 minutes to complete this survey. Completion of this survey does not require a commitment to continue with the interviews. You may choose to end your participation at any time during the survey or interview process, and any personal information you have provided will be deleted. Note that, should you participate, any personal information provided during this study will be de-identified using pseudonyms.

Note: You are eligible for this study if and only if you meet the following criteria:

- 1.) You are currently a TFA corps member in your second year of teaching.
- 2.) You are currently teaching at least one math or science course in a Massachusetts school.
- 3.) You are currently taking at least one class at Boston University.

If you do not meet ALL three of these criteria, you are NOT eligible for this study.

If you have any questions, you can ask me now by raising your hand. If you have any

questions later, you can contact me via email at fshah@bu.edu, or my faculty advisor Ziv Feldman via email at zfeld@bu.edu.

- I agree to participate in this study. (1)
- I do not agree to participate in this study. (You will be sent immediately to the end of the survey if you select this option). (2)

*Skip To: End of Survey If Informed Consent This survey will be used by the researcher for a study looking into second-year... = I do not agree to participate in this study. (You will be sent immediately to the end of the survey if you select this option).*

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Q2 What is the name of the school in which you teach?

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Q3 Which of the following classes/topics do you teach? Select all that apply.

- Pre-algebra (1)
  - Algebra (2)
  - Geometry (3)
  - Precalculus (4)
  - Calculus (5)
  - Biology (6)
  - Chemistry (7)
  - Earth Science (8)
  - Physics (9)
  - Computer Science (10)
  - General Science (11)
  - Other topics/classes (12)
- 

Page Break

Q4 What was your undergraduate major(s)?

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Page Break

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## End of Block: Inclusion Criteria

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### Start of Block: Support Networks

Q5 The following section will ask you about the extent to which you feel that you receive different types of support. For this section, please consider your professional contacts at your school/district, within TFA, at your university, and/or at other schools. Please answer the following questions, selecting the most appropriate responses.

---

Q6

Select the option that corresponds to the extent to which you agree with the following statement regarding support related to your work as a teacher.

I have professional contacts at my school/district, within TFA, at my university, and/or at other schools that provide me with ongoing personal appraisal, such as frequent and constructive feedback about my performance, information about what constitutes effective teaching, and clear guidelines regarding my job responsibilities.

- 5 - Strongly Agree (1)
  - 4 - Agree (2)
  - 3 - Neutral (3)
  - 2 - Disagree (4)
  - 1 - Strongly Disagree (5)
-

Q7 From whom do you receive this kind of support? (select all that apply)

- Principal/Vice Principal (1)
- Other administrator(s) in school/district (2)
- Coach (3)
- Teacher(s) at your school (4)
- Teacher(s) at other schools (5)
- TFA peers (6)
- TFA Staff (7)
- Boston University Staff/Faculty (8)
- Other (9) \_\_\_\_\_
- None of the above (10)

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Page Break

Q10 Select the option that corresponds to the extent to which you agree with the following statement regarding support related to your work as a teacher.

I have professional contacts at my school/district, within TFA, at my university, and/or at other schools that show me that I am respected, a trusted professional, and worthy of concern by maintaining open communication, showing appreciation, taking an interest in my work, and considering my recommendations.

- 5 - Strongly Agree (1)
  - 4 - Agree (2)
  - 3 - Neutral (3)
  - 2 - Disagree (4)
  - 1 - Strongly Disagree (5)
-

Q11 From whom do you receive this kind of support? (select all that apply)

- Principal/Vice Principal (1)
- Other administrator(s) in school/district (2)
- Coach (3)
- Teacher(s) at your school (4)
- Teacher(s) at other schools (5)
- TFA peers (6)
- TFA Staff (7)
- Boston University Staff/Faculty (8)
- Other (9) \_\_\_\_\_
- None of the above (10)

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Page Break

Q12

Select the option that corresponds to the extent to which you agree with the following statement regarding support related to your work as a teacher.

I have professional contacts at my school/district, within TFA, at my university, and/or at other schools that provide me with information that I can use to improve classroom practices, such as classroom management or teaching strategies.

- 5 - Strongly Agree (1)
  - 4 - Agree (2)
  - 3 - Neutral (3)
  - 2- Disagree (4)
  - 1- Strongly Disagree (5)
-

Q13 From whom do you receive this kind of support? (select all that apply)

- Principal/Vice Principal (1)
- Other administrator(s) in school/district (2)
- Coach (3)
- Teacher(s) at your school (4)
- Teacher(s) at other schools (5)
- TFA peers (6)
- TFA Staff (7)
- Boston University Staff/Faculty (8)
- Other (9) \_\_\_\_\_
- None of the above (10)

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Page Break

Q14

Select the option that corresponds to the extent to which you agree with the following statement regarding support related to your work as a teacher.

I have professional contacts at my school/district, within TFA, at my university, and/or at other schools that assist me with work-related tasks, such as providing necessary materials, space, and resources (such as tasks, lesson plans, homework assignments, and/or assessments).

- 5- Strongly Agree (1)
  - 4 - Agree (2)
  - 3 - Neutral (3)
  - 2 - Disagree (4)
  - 1 - Strongly Disagree (5)
-

Q15 From whom do you receive this kind of support? (select all that apply)

- Principal/Vice Principal (1)
- Other administrator(s) in school/district (2)
- Coach (3)
- Teacher(s) at your school (4)
- Teacher(s) at other schools (5)
- TFA peers (6)
- TFA Staff (7)
- Boston University Staff/Faculty (8)
- Other (9) \_\_\_\_\_
- None of the above (10)

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Page Break

## End of Block: Support Networks

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### Start of Block: Post-Commitment Plans

Q16 Have you decided yet whether or not you will continue teaching at your current school for next school year?

- Yes, I have decided that I will continue teaching at my school next year. (1)
  - Yes, I have decided that I will not continue teaching at my current school. (3)
  - No, I am still in the process of deciding whether or not I will continue teaching at my current school. (2)
- 

*Display This Question:*

*If Have you decided yet whether or not you will continue teaching at your current school for next sc... = No, I am still in the process of deciding whether or not I will continue teaching at my current school.*

Q17 Why are you unsure about whether or not you will teach at your current after you complete your two-year commitment at your school? Please briefly explain some of the major factors you are considering as you make your decision.

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*Display This Question:*

*If Have you decided yet whether or not you will continue teaching at your current school for next sc... = No, I am still in the process of deciding whether or not I will continue teaching at my current school.*

Q18 What options other than continuing teaching at your current school are you considering? (Select all that apply)

Switch to a different role in my current school (please specify what type of role you are considering) (1) \_\_\_\_\_

Teach at another school (2)

Further education (e.g. Law school, graduate school, medical school, certificate program) (3)

Other (4) \_\_\_\_\_

No alternative plans as of yet (5)

End of Block: Post-Commitment Plans

---

Q19 Would you be willing to be contacted for follow up interviews with the researcher? (If selected, you would receive a \$20 Amazon.com gift certificate for each of 3 interviews upon completion of the interviews, either online or in-person).

If you are interested, you will now be asked for your name and email address so that I can contact you if you are selected to participate in the study.

Yes (1)

No (2)

---

*Display This Question:*

*If Would you be willing to be contacted for follow up interviews with the researcher?  
(If selected,... = Yes*

Q20 Please enter your first and last name.

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*Display This Question:*

*If Would you be willing to be contacted for follow up interviews with the researcher?  
(If selected,... = Yes*

**Q21 Please enter your email address**

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**End of Block: End**

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## Interview Informed Consent Form

Protocol Title: Examining the Relationship Between Second-Year TFA Teachers' Support Networks and their Post-Commitment Plans
Principal Investigator: Fahmil Shah
Description of Subject Population: Second-Year TFA Mathematics and Science Teachers
Version Date: 9/24/19

### Introduction

Please read this form carefully. The purpose of this form is to provide you with important information about taking part in a research study. If any of the statements or words in this form are unclear, please let me know. I would be happy to answer any questions.

If you have any questions about the research or any portion of this form, please ask me. Taking part in this research study is up to you. If you decide to take part in this research study, I will give you a copy of this form upon request.

The person in charge of this study is Fahmil Shah, a doctoral student at WED. Fahmil Shah can be reached at [fshah@bu.edu](mailto:fshah@bu.edu). His faculty advisor is Ziv Feldman, who can be reached at [zfeld@bu.edu](mailto:zfeld@bu.edu). I will refer to Fahmil Shah, the Principal Investigator as the "PI" throughout this form. I will refer to Fahmil and Ziv collectively as "the researchers".

### Why is this study being done?

The purpose of this study is to learn about the use of support networks and the post-commitment decision-making process of second-year Teach for America mathematics and science teachers.

We are asking you to take part in this study because you fit the inclusion criteria, and we would like to learn about your experiences at your school and in your classroom. This research is unfunded.

### How long will I take part in this research study?

This study will involve three interviews (up to 60 minutes each) occurring roughly during the beginning, middle, and end of the 2019–2020 school year. Interviews will take place

approximately during September–October, January–February, and June–July. These interviews will be conducted at Boston University, or at a location of mutual convenience.

### **What will happen if I take part in this research study?**

#### **In-person Interviews**

Each interview will take a maximum of 60 minutes to complete. At this visit, we will ask you to answer a series of questions regarding your feelings around the challenges you face in your work as a student and/or teacher, your career plans following this academic year, and your decision-making around making these plans.

#### **Audiotaping**

I will audiotape the interviews using my phone. The audio files will be transferred from the phone to a password-protected computer and server. I will label these files with a code instead of your name. A separate file connects your name to your audio files. The PI will keep the file in a password-protected computer for seven years. No one other than the PI will have access to this file. The transcripts of this audiotape will be de-identified by the PI for the purposes of analysis by the researchers.

#### **Storing Study Information for Future Use**

We would like to store your study information for future research related to support and teacher retention. We will label all your study information with a code instead of your name. The key to the code connects your name to your study information. The PI will keep the code in a password-protected computer and server.

Please sign below if you agree to have the interviews audiotaped, and for the PI to store your study information for further use.

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## **How Will You Keep My Study Records Confidential?**

We will keep the records of this study confidential by de-identifying all transcripts and keeping all files on a password-protected computer/server. We will make every effort to keep your records confidential. However, there are times when federal or state law requires the disclosure of your records.

If, during your participation in this study, I have reasonable cause to believe that child/elder abuse is occurring, I must report this to authorities as required by law. The researcher will make every reasonable effort to protect the confidentiality of your research information. However, it might be possible that a civil or criminal court might demand the release of identifiable research information.

The following people or groups may review your study records for purposes such as quality control or safety:

- The Researcher and any member of his research team
- The Institutional Review Board at Boston University. The Institutional Review Board is a group of people who review human research studies for safety and protection of people who take part in the studies.
- Federal and state agencies that oversee or review research

The study data will be stored in password-protected files on a computer and on a server. The results of this research study may be published or used for teaching. We will not put identifiable information on data that are used for these purposes.

## **Study Participation and Early Withdrawal**

Taking part in this study is your choice. You are free not to take part or to withdraw at any time for any reason. No matter what you decide, there will be no penalty or loss of benefit to which you are entitled. If you decide to withdraw from this study, the information that you have already provided will be kept confidential.

You may choose not to be in the study or to stop being in the study before it is over at any time. This will not affect your class standing or your grades at Boston University. You will not be offered or receive any special consideration if you take part in this research study.

Also, the researcher may take you out of this study without your permission. This may happen because:

- The researcher thinks it is in your best interest
- You can't make the required study visits
- Other administrative reasons

### **Future Contact**

We may like to contact you in the future either to follow-up to this study or to see if you are interested in other studies taking place at Boston University.

Please sign below if you agree to be contacted following your interviews.

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### **What are the risks of taking part in this research study?**

#### **Risks of Completing Tasks**

You may get tired during the interview. We can take a break at any time for any reason.

#### **Interview Risks**

You may be uncomfortable with some of the questions and topics we will ask about. You do not have to answer any questions that make you feel uncomfortable.

#### **Loss of Confidentiality**

The main risk of allowing us to use and store your information for research is a potential loss of privacy. We will protect your privacy by labeling your information with a code and keeping the key to the code in a password-protected computers and servers.

### **Are there any benefits from being in this research study?**

There are no direct benefits to you from taking part in this research.

### **What alternatives are available?**

You may choose not to take part in this research study.

**Will I get paid for taking part in this research study?**

I will send you a \$20 Amazon.com gift certificate for completing each interview. These gift certificates will be delivered to the email you have provided to me unless another preference is indicated.

**What will it cost me to take part in this research study?**

There are no costs to you for taking part in this research study.

**If I have any questions or concerns about this research study, who can I talk to?**

You can call us with any concerns or questions. Our telephone numbers are listed below:

PI: Fahmil Shah	617-331-3206
Faculty Advisor: Ziv Feldman	617-353-3289

If you have questions about your rights as a research subject or want to speak with someone independent of the research team, you may contact the Boston University IRB directly at 617-358-6115.

**Statement of Consent**

<p>I have read the information in this consent form including risks and possible benefits. I am aware that my status as a TFA corps member, employee at my school, and BU student will not be impacted in any way as result of this study. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in the study.</p> <hr/>
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## Initial TFA Teacher Interview Protocol

### Purposes

- 1.) Discussion of survey responses
- 2.) Learn about their support networks in more detail
- 3.) Learn about their decision-making regarding post-commitment plans

### Section 1: Background – Example Questions and Follow-ups

- 1.) I'd like to hear a bit about your background. Could you tell me about how you came to the decision to go into teaching?
  - a.) *If entering teaching through TFA not addressed:* Could you tell me about how you came to the decision to go into Teach for America?
- 2.) Could you tell me a bit about your own schooling experience?
  - a.) Where did you go to school?
  - b.) What were those schools like?
  - c.) What was your own experience as a student like?
  - d.) What classes did you enjoy the most? Why?
  - e.) What classes did you not like? Why?
  - f.) *If math/science not mentioned before:* What was your experience like in your <math or science> classes?
  - g.) *If math/science not mentioned before:* What do you like or not like about you <math or science> classes?
- 3.) You mentioned that you teach at <School Name>. Tell me a bit about your school.
  - a.) How big is the <math or science> department at your school?
  - b.) How many other <math or science> teachers are there?
  - c.) Who are the people that you work with directly at work, besides the students?
- 4.) What classes are you teaching this year?
  - a.) How many other teachers teach <same classes>?
  - b.) What classes did you teach last year?
  - c.) *If classes are different:* How do you like teaching <this year's classes> compared to <last year's classes>?

5.) How would you describe your students? *Ask about each class individually if classes/students in classes are described as being significantly different (e.g. different tracks).*

a.) *If not addressed:* How would you describe how well behaved they are?

b.) *If not addressed:* How would you describe their language ability?

c.) *If not addressed:* How would you describe their academic ability?

d.) *If not addressed:* Do you have students with special needs?

i.) *If yes:* What kind of accommodations do they need?

ii.) *If yes:* Do you think the accommodations are effective? *If not:* What else do you think could be helpful?

6.) *If not addressed:* How did teaching go last year? What was going well? What challenges did you encounter? *Note down any challenges that are mentioned for the following section.*

## **Section 2: Support Networks – Example Questions and Follow-ups**

1.) How do you feel about the level of collegiality that you have at school?

a.) Are there people at your school that you have a particularly strong relationship with?

i.) How did that relationship develop?

ii.) Why do you think this relationship has been helpful?

*Repeat questions for other contexts (BU and TFA)*

2.) Earlier, you mentioned <challenge>. Have you gotten help from anyone in dealing with <challenge(s)>?

a.) How have you gone about dealing with <challenge>?

b.) Have you gotten help from anyone to help you with <challenge>? *Any individuals mentioned are considered support network members. Each one will be discussed individually in the follow-up questions.*

c.) Why did you go to <support network member> for help?

d.) Has <support network member> been useful?

- e.) Why do you think <support network member> is (not) useful?
  - f.) Have you worked with anyone else on this challenge? *Repeat questions about each person.*
- 3.) How do you feel like <their solution to deal with challenge> has been working?
- a.) Will you continue <with this solution>?
- 4.) Are there any challenges that you are having a lot of trouble resolving? *Challenges that teachers have not found a suitable solution to deal with as of yet will be considered unresolved challenges.*
- a.) What do you think makes <unresolved challenges> particularly difficult?
  - b.) Do you have a plan for what you will try to do to deal with <resolved challenges>?
  - c.) *If not addressed:* Is there anyone you would consider to going to for help with this?
- 5.) *If challenges have only been in one context (e.g., only within school, but not anything at BU):* So far you've only mentioned challenges that you face <in one context>. Are there any challenges that you've faced <in other context>? *If so, return to beginning of section and ask about challenges within other contexts>*
- 6.) *If challenges only relate to certain types of support*
- a.) The challenges you've mentioned have been <of mentioned types>. Have you had any challenges with <description of other types of supports not yet mentioned>? *Ask follow-ups for each challenge mentioned here.*

### **Section 3: Post-Commitment plans – Example Questions and Follow-ups**

- 1.) On your survey, you indicated that you haven't decided whether or not you would continue with teaching at your current school following this school year? Is this still the case?
- a.) *If they have made a decision:* What did you decide to do?
    - i.) Why did you decide to <their plans>?
  - b.) *If they have not made a decision:* What factors are you considering as you are thinking about what you will do?
    - i.) What, if anything, would encourage you to keep teaching at <current school>?
    - ii.) What, if anything, would encourage you to leave your current school?

iii.) Do you have a deadline for when you plan on deciding?

2.) Who have you talked to about these plans?

a.) Why did you decide to talk to <person> about your plans?

b.) Tell me a bit about your conversations.

c.) Are these conversations helpful? *Ask previous questions for each individual.*

d.) *If people are all from the same context (e.g., TFA, BU, school):* So far you've only mentioned people at <context>, have to talked to anyone at <other contexts> about your future plans? *Repeat previous questions for these individuals.*

## Follow-up Teacher Interview Protocol

### Purposes

- 1.) Discuss the development of their support networks
- 2.) Update on post-commitment plans
- 3.) Discussion on development of post-commitment decision-making (if still ongoing) or on how decision was reached (if finalized)

### Section 1: Development of Support Networks – Example Questions and Follow-ups

- 1.) How has the first half of your year been going?
- 2.) In the last interview, you mentioned that you were working on <challenge>.
  - a.) *If they were successfully dealing with the challenge.* You mentioned that you were working with <support network member(s)> on <challenge> and that has been working well. Is that still the case?
    - i.) *If they are still working with them:* Is <support network member> still being helpful with <challenge>? How so?
    - ii.) *If they are no longer working with them:* Why aren't you working with them anymore?
    - iii.) *If the solution is no longer working:* Why do you think you're having problems with <the challenge> now?
    - iv.) Will you continue working with <support network member> on <solution>?  
*Ask about relationships with any other individuals they were working with on this issue with the same set of questions.*
  - b.) *If they did not have a solution or it has not been going well.* Have you come up with a solution?
    - i.) Why did you choose that strategy?
    - ii.) Are you working with anyone on this solution strategy? *Ask follow-ups as before about why these chose this individual, and how that is working.*
    - iii.) Will you continue using this strategy for the rest of the year?
- 3.) You've mentioned that you've built a good relationship with <key support network member(s) mentioned during first interview>. Has that continued to be the case? How so/why not?
  - a.) *Ask follow-ups depending on the progression of this relationship.*

## Section 2: Post-Commitment Plans – Example Questions and Follow-ups

1.) Last interview, you indicated that you hadn't decided whether or not you would continue with teaching at your current school following this school year? Is this still the case?

a.) *If they have made a decision:* What did you decide to do?

i.) Why did you decide to <their plans>?

ii.) When did you make this decision?

b.) *If they have not made a decision:* What factors are you considering as you are thinking about what you will do?

i.) What would encourage you to stay in teaching at your current school?

ii.) What are things that would encourage you to leave your current school?

iii.) Do you have a deadline for when you plan on deciding?

3.) Who have you talked to about these plans?

a.) Why did you decide to talk to <person> about your plans? *If they have not mentioned this person when talking about challenges, ask more about this person.*

b.) Tell me a bit about your conversations.

c.) Are these conversations helpful? *Ask previous questions for each individual.*

d.) *If people are all from the same context (e.g., TFA, BU, school):* So far you've only mentioned people at <context>, have you talked to anyone at <other contexts> about your future plans? *Repeat previous questions for these individuals.*

## Final Teacher Interview Protocol

### Purposes

- 1.) Discuss their finalized post-commitment plans
- 2.) Discuss their decision-making process
- 3.) Discuss the extent to which their support networks influenced the decision-making process

### Section 1: Post-Commitment Plans – Example Questions and Follow-ups

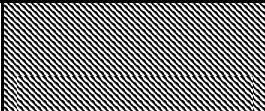
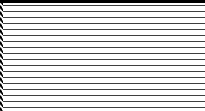

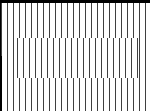
- 1.) How was your last semester of teaching?
  - a.) *Follow-up questions based on responses.*
- 2.) How did your BU classes go?
  - a.) *Follow-up questions based on responses.*
- 3a.) *If they had plans yet.* Last time we talked, you said that you were planning on <previous plans>. Is that what you ended up doing?
  - a.) *If plans stayed the same.* Last time you said that you wanted to do <plans> because <reasons>. Do you still feel the same way about things?
  - b.) *If plans changed.* What led to you change your plans?
- 3b.) *If they did not have plans yet.* Last time we talked, you said you still weren't sure what you were going to do at the end of the school year. What did you end up deciding to do?
  - a.) How did you come to that decision?
  - b.) Did you go to anyone for help as you made your decision around your plans??
  - c.) Why did you talk to <support network member> when making your plans?
  - d.) Tell me about your conversations.
- 4a.) *If they plan on teaching elsewhere.* What are you hoping will be different at a new school?
  - a.) Is there anything you'll do differently?

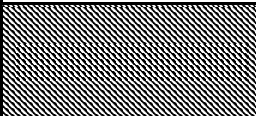
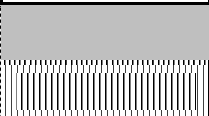
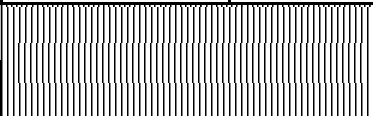
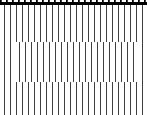
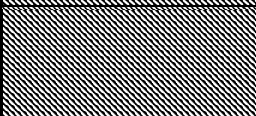
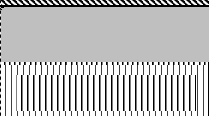
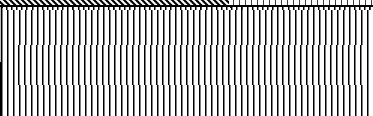
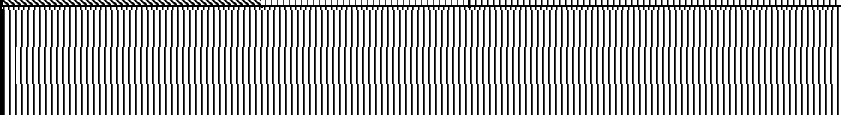
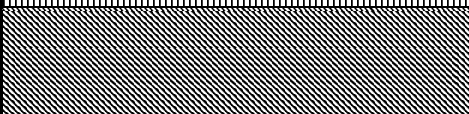
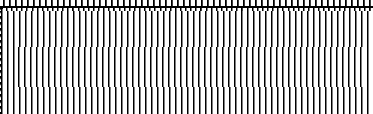
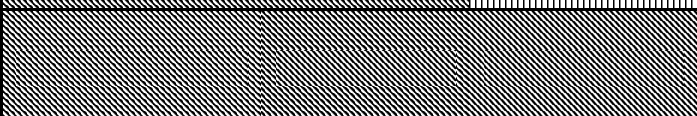
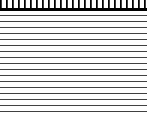

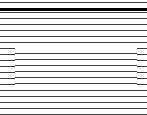
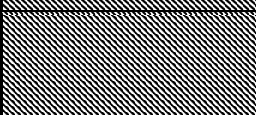
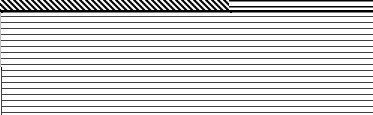
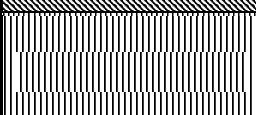
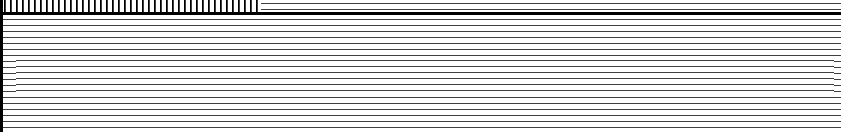
### Section 2: Influences on Decision-making Process – Example Questions and Follow-ups

- 1.) As you've come to make your decision, who do you think were the biggest factors that influenced your decision?
  - a.) Was there any particular moment or experiment which solidified your decision for you?
  - b.) Who do you think had the biggest influence on your decision-making process?

- c.) Why do you think they were so influential as you were making your decision?
- 2.) Do you think you would have made a different decision if anything had gone differently over the past year? *Ask follow-ups based on this response.*
- 3.) *If plans were made for the first time before this point.* Are there any times you were considering changing your decision?  
a.) *If yes:* What or who made you reconsider your plans?
- 4.) What, if anything, did you find challenging about making your final decision? *Ask follow-ups based on this response.*
- 5.) *If not clear yet:* How confident do you feel in your final decision?
- 6a.) *If the plan is to get a new job:* How long do you plan in <doing new plans>?
- 6b.) *If the plan is to continue teaching in currently school:* How long do you think you'll stay at your school?
- 6c.) *If the plan is more schooling/training:* What do you think you'll do after <new plans>?

**Intended Plan Trajectory Diagram (Black and White)**

Category	Potential Stayer	Stayer	Mover/Leaver	Leaver
Key				

Teacher Name	Pre-Program Plan	Initial	Follow-up	Final
Akiko				
George				
Rick				
Jo				
Matt				
Dorothy				
Jamie				
Katherine				
Melody				
Paul				

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**CURRICULUM VITAE**

