TEACHER PREPARATION AND QUALITY [†]

The Role of Pre-Service Experience and School Context in Urban Classrooms

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INTRODUCTION

Teacher Education under Scrutiny

Educators and policymakers agree that teacher quality has more impact on student achievement than any other identifiable factor (What Matters Most: Teaching for America's Future, National Commission on Teaching and America's Future, 1996). Teacher quality matters more than curriculum and more than physical environment. It even matters more than the amount of resources available, the quality of school leadership, and the school climate, which have all been shown to be important factors in achievement (Darling-Hammond, 2000, 2006). Yet improving teacher quality is one of the most challenging goals of education reform.

In order to achieve the goal of ensuring high quality teachers in all schools, policymakers have begun to scrutinize teacher preparation, assuming some programs must do a better job of preparing teachers than others and that some practices are more likely to lead to higher quality teacher performance in the classroom. Researchers have examined various factors as influences on teacher quality, including the characteristics of those who select teaching as a career, but there is no consensus about what pathway, what type of preparation, and what features of preparation programs impact teachers' ability to promote student learning, especially in the context of high needs urban schools.

Like other big cities, Philadelphia struggles to attract and retain high quality teachers, especially in "hard-to-staff," low-performing schools where few veterans teach and where teacher turnover rates are high. As a consequence of factors such as seniority, veteran teachers tend to migrate to higher-performing schools, leaving positions in low-performing schools to new teachers. The burden on new teachers to manage students in such schools, often lacking stable leadership and a strong teacher community, highlights the challenge teacher preparation

programs face as they attempt to prepare graduates to succeed in urban settings. With good intentions, many teacher preparation programs continue to produce graduates who meet state qualifications but many of whom do not persist in the profession for more than a few years (Podolsky, Kini, Bishop, & Darling-Hammond, 2016; Carver-Thomas & Darling Hammond, 2017). In response to these conditions and with the assumptions of policymakers in mind, we set out to investigate whether there are substantives differences across programs that prepare teachers who work in Philadelphia schools and whether such differences have linkages to later success in the classroom.

While state education agencies control much of the curriculum content for teacher preparation programs as well as the type and extent of field experiences, schools of education work to create signature pedagogies that they believe optimally position their graduates for effective classroom practice. Typically, however, internal program development for teacher education is based on new research and theory regarding how students learn and the best ways to teach them, not on evidence of their graduates' performance in classrooms. Schools of education also respond to the changing policy landscape affecting curriculum and assessment, such as the national push to implement *Common Core* standards and the adoption by many states of a standardized teacher certification process requiring mastery of certain types of teacher tasks.

In this context, we were interested in designing a study to learn more about how graduates perform in classrooms, how they adapt to their roles, and the extent to which they influence student achievement. We anticipated that knowledge about their graduates' performance in the field could help teacher preparation programs to take on the challenges posed by complex and often under-resourced urban environments. We also anticipated such knowledge would assist the urban school leaders in their quest to hire teachers most likely to succeed and remain in their schools.

We suspected that high-needs school settings might test teacher preparation in ways that could undermine the integrity of their best practices and state-mandated requirements. Consistent with well documented patterns of teacher placement in Philadelphia and other urban centers, new teachers often encounter high needs schools as they enter the profession, schools that do not function at the same level as those students experience in teacher preparation. We understood that those challenging settings would play a role in teacher quality measures, but we were struck by how prominent a role they played.

Although state mandates can be very specific, institutions of higher education meet the requirements for teacher preparation in various ways. It is therefore worth analyzing how within-state teacher education programs vary and whether their graduates present different strengths and weaknesses related to the programs they attended. Teacher education programs are under increasing scrutiny as they are tasked with the job of producing teachers who feel well prepared to teach, who enter and remain in the field of teaching, and who are effective teachers of students with a range of strengths and needs. In addition, teacher education programs must prepare teacher candidates for teaching jobs in schools that differ greatly in terms of resources, student demographics, climate, leadership and teacher community. Because different school settings might logically require different skills, our study focused on determining the kind of training needed to prepare teacher candidates to teach effectively in under-resourced, high needs urban schools. In addition, keeping in mind these differences in job situations, this study set out to provide more information about the relationship between program pathway, teachers' perceptions and teaching effectiveness, an acknowledged gap in the research (Darling-Hammond, Chung, & Frelow, 2002).

OVERVIEW OF THE STUDY

Through this study, we investigated the authentic experiences and reflections of Philadelphia teachers prepared by eight different institutions, all members of a local consortium, The Teacher Education Alliance. The Teacher Education Alliance brings together representatives from 19 regional university-based teacher education programs, along with representatives from Relay and Teacher for America, all of which place teachers in Philadelphia schools. The eight programs that elected to participate in the study, Bryn Mawr/Haverford, Drexel, Eastern, Holy Family, LaSalle, St. Joseph's, Swarthmore and Temple, included the largest providers of teachers to Philadelphia schools along with a few smaller programs. We studied how graduates transitioned into the urban classroom, what features of their preparation programs impacted their teaching and their effectiveness most, and connections between how they were prepared and student learning. Our research questions reflect our interest in the trajectory our participants followed from (a) pre-service teacher participating in coursework and fieldwork in a particular teacher preparation program to (b) recent graduate and first year teacher to (c) more experienced teacher able to reflect on the potential longer-term impact of their preparation program within the teaching context(s) they've experienced since graduation. The research questions explained below reflect that trajectory. We posed these questions in order to investigate the claim currently being made by education policymakers that the quality of teacher education programs has a strong influence on teacher performance and teacher quality when teachers enter the profession.

The influences of teacher preparation programs on teacher practice are neither well studied nor well understood, and there is little understanding of how particular features of programs might influence teachers. Some researchers believe the quality and extent of field experiences prior to entering the classroom influence teacher preparedness and teacher performance (see, for example, Ronfeldt, 2015; and Ronfeldt & Reininger, 2012; and Zeichner,

2006), while others suggest that teachers' own educational experiences have greater influence on their teaching than how and where they were prepared (Feiman-Nemser, 2001). We identified practices that previous research suggested might impact teacher performance in urban settings and designed our study to assess to what extent programs followed those practices and to what extent they influenced teachers in Philadelphia.

Our three core research questions were designed to provide insight into what matters in teacher education. We asked: (1) What is the relationship between teacher preparation and teacher performance in Philadelphia classrooms? (2) Does teacher performance in the classroom vary as a result of where teachers were prepared? And (3): Are there best practices in teacher preparation that better prepare teachers to succeed in Philadelphia schools? In order to dig deeper into the impact of pre-service education, we also asked related questions to guide our inquiry, questions about how teachers perceived the influence of their preparation on their practice, and how they assess the quality and utility of their program experiences. We specifically asked teachers how well prepared they felt to succeed in the city classrooms they encountered and which aspects of their pre-service programs they perceived as most salient and most beneficial, both initially and over time.

Additional areas of inquiry addressed concerns in the literature about how teachers develop self-confidence and improve their practice. We asked questions like, how do teacher perceptions of self-efficacy and working conditions affect their performance? In an effort to assess any differential impact of teachers from different programs, we also asked to what degree teacher background characteristics and pre- service experiences affect teacher evaluations and how teacher preparation impacts different dimensions of student outcomes, learning and engagement. Using teachers' perceptions of their schooling and experience, observational data, and school district measures of teacher quality, including student achievement and teacher

assessment, we were able to answer most of our questions. We also drew conclusions about what teacher preparation programs can and cannot accomplish and the influence of school context on teacher development and teacher quality.

BACKGROUND

A considerable body of previous research provides critical insights which guided our research design, aided our data analysis and, for the most part, matched our findings. Several areas of research, in particular, helped to contextualize what urban school teachers told us about what they learned in their preparation programs, their feelings of preparedness when they began teaching in Philadelphia, their experience as first-year teachers and their learning process over time.

What Matters in Teacher Preparation

We began our study by collecting information on the eight programs that participated in the study and their unique features in an effort to identify signature pedagogies that might influence graduates' teaching practice in unique ways. We characterized individual program features based partly on their self-representation but also on to what extent they conformed to best practices. The extant literature on best practices in teacher preparation consistently advocates for the integration of theory and practice, noting that the successful integration of theory and practice is potentially both the most challenging and most crucial aspect of effective teacher education. This "problem of enactment," (Darling-Hammond, 2006), which describes the challenge of applying theory to practice, impedes teachers from fully understanding how to use knowledge and research to inform their classroom practice. Similarly, many researchers and practitioners have stated that teacher preparation needs to bridge the "gap" between coursework and the realities of pre-service fieldwork and in-service teaching (Feiman-Nemser, 2001). The terms "coherence" and "integration" show up frequently in the literature, stressing that pre-

service teachers need to experience coherence and integration (a) among their courses, and (b) between their coursework and fieldwork.

Many teachers, including those in our study, describe this issue somewhat differently, citing the need for more hands-on learning and less theory in their programs. Studies have found that teachers prepared in programs that focus more on the classroom produce teachers who are more effective in their first year of teaching. (Boyd, et al., 2009). The same study suggests, however, that teachers use what they learn in preparation over time, not necessarily in their first year, leading to the conclusion that theoretical frameworks may support teachers more as their practice evolves over time.

Extensive fieldwork is also considered a best practice, and the fieldwork setting makes a difference. For example, we know that pre-service teachers need to be in classrooms that model good teaching with diverse learners, which is not always the case, and presents challenges for all programs, especially those that share the same regional pool of schools and mentor teachers (Darling-Hammond, 2006; Ronfeldt, 2015). In the realm of fieldwork, student teaching stands out as a transformative experience for many teachers, including those in our study, many of whom recommended longer student teaching experiences. In their study, Ronfeldt and Reininger (2012) highlight the issue of duration. Using large scale survey data of teachers in New York City, they found more positive outcomes associated with shorter, higher quality student teaching experiences. In addition, as more programs transition towards a full-year of student teaching, with the hopes of better preparing their students, they may be overlooking the more crucial element of quality. In a study of the relationship between instructional effectiveness and student teaching placement, Ronfeldt found that teachers who were prepared in schools with a more cohesive teacher community were more effective at raising student achievement. Ronfeldt and Reininger's findings raise key questions for best practices in teacher preparation, highlighting a

critical dilemma: should students be placed in more functional school settings where they can witness good teaching practices or in placements that may better reflect their initial professional placements?

Looking at the influence of specific teacher preparation program features, it is difficult to draw conclusions. In an editorial in the *Journal of Teacher Education* (2005) in response to an AERA study of teacher preparation, Cochran-Smith reports that there is no empirical evidence supporting the practices that tend to dominate in teacher education programs. This lack of clarity makes it difficult to align best practices in teacher education with teacher performance in any meaningful way.

Still, particular elements of teacher education programs have been shown to matter in some cases. Ronfeldt, Schwartz, and Jacob (2014) analyzed data from the *Schools and Staffing Surveys* (SASS), with respondents who also participated in the *Teacher Follow-up Survey* (TFS) and were in their first five years of full-time teaching in public schools. Ronfeldt and his colleagues found that teachers who completed more methods coursework and more weeks of practice teaching felt significantly more prepared in their first year of teaching. In a major study of teacher preparation in New York City, Boyd et al. (2008) found, as we did, that the overall structure of teacher education programs was more alike than different across institutions and pathways. They found greater variation in how programs taught classroom management and multicultural education, largely because of the lack of consensus about best practices. They also cited the tendency of programs to emulate best practices in model institutions, and the necessity of conforming to state mandates to explain their general similarity.

Preparing teachers for specific contexts

In an effort to investigate the impact of teacher preparation, researchers have recently focused more on the need to focus more on teacher preparation for specific contexts. For

example, Hammerness and Craig (2016) have laid some groundwork for understanding the role of teacher preparation for specific urban contexts. As part of their study, *"Context-Specific" Teacher Preparation for New York City*, they interviewed and observed novice teachers, who felt underprepared to teach effectively in "high poverty settings" where they experienced high numbers of students with special needs, home languages other than English, experiences with trauma, and low reading levels (p. 1240). In examining teacher assessment, Darling-Hammond (2014) also argues for the critical influence of school context on "teaching" quality, which she distinguishes from "teacher" quality. She highlights the need to consider supports for teacher work, how teachers are deployed and their overall working conditions in assessing their practice.

Research does give us insight into the characteristics and conditions linked to high quality teaching, which implicate both pre-service education and the conditions in their school settings as teachers transition into their professional roles. Those factors include intensive and specialized learning and coordinated, supervised field experiences (Daane & Wilson, 2010; Fives, Hamman, & Olivarez, 2007); the ability to self-assess and improve on their practice (Bates & Burbank, 2008; Soslau, 2012); on-the-job supports and coaching (Chester & Beaudin, 1996); school leadership and supports (Ronfeldt, 2015); and a positive, supportive teacher community (Ross & Gray, 2006; Smith & Ingersoll, 2004). Much of this research and thinking is widely accepted and non-controversial and, as a result, we asked participants in our study questions designed to elicit information about school supports, leadership, teacher community and opportunities to reflect on and develop their practice.

What Matters about School Context

As they transition into their professional roles, teachers go through a process of enculturation as they learn to fit into and conform to the expectations set out by their school communities (Feiman-Nemser, 2003; Darling-Hammond & Bransford, 2005). Aspects of school

context like leadership and teacher supports clearly matter to teachers, impacting their performance, their job satisfaction and greatly influencing their decision-making about whether to stay in a school (Ingersoll & Smith, 2011). In addition, some literature suggests that not enough attention has been paid to the role of informal mentoring and collegial support for early career teachers (Glazerman et al., 2008; 2010) as they go through this process. The new teacher induction literature has focused a great deal of attention on formal mentoring, but researchers have not thoroughly investigated the influence of informal mentors and peers on which many of our study participants depended, especially in the face of organizational instability. Kapadia et al. (2007) found that early career teachers were more influenced by these informal mentors and school-based peers than their formal mentors. Additional studies have reinforced the impact of collegial support (Johnson & Birkeland, 2003; Kardos, Johnson, Peske, Kauffman, & Liu, 2001). Opportunities to collaborate and learn from one another create favorable working conditions that lead teachers toward greater job satisfaction and less migration and attrition. In their study of early career teachers, Johnson and Birkeland found schools that created multiple opportunities for teachers to work collaboratively retained more of their teachers. In a larger study, Ingersoll and Smith found that the presence of common planning time promoted retention.

There is evidence that teachers model their own teaching on the veteran teachers they observe rather than on principles and practices they are taught (Feiman-Nemser, 2003), weakening the impact of their preparation programs. Often unable to implement the practices they were taught, new teachers follow the advice of older teachers, which leads to the perpetuation of the status quo. In an Australian teacher education program specifically designed to help teacher candidates more effectively integrate theory and practice, Allen (2009) found that only 5 out of 14 participants applied the theories they had learned in their coursework into their fieldwork teaching. Through interviews, participants identified the key factor as whether or not

their supervising teacher knew about and followed the pedagogy the participants were learning in their coursework. According to Allen, when their supervising teacher did not, the participants chose to or felt they had to follow their supervising teacher's example. This pattern continued when the participants began their careers as full-time teachers, in which they reported preferring to follow the examples of more experienced and established teachers rather than the theories, practices, resources, and materials they had learned or used in their teacher education program.

Studying Teacher Education in Embedded Contexts

Researchers have suggested the need to frame studies of teacher education in an organizational context and look at the influence of both the organization of higher education and the demands of local labor markets (Grossman & McDonald, 2008; Ingersoll, 2001; Ingersoll & Smith, 2003). Grossman & McDonald, along with Zeichner, have emphasized the importance of situating teacher preparation in multiple contexts, contexts that include schools and districts as well as state and national policies. Research that addresses the role of context, instead of attempting simply to determine the influence of factors across all contexts, can provide greater insight and a more nuanced understanding of the influence of their preparation on teacher practice. In this case, by situating teacher practice in specific school settings, we were able to investigate how and to what extent pre-service learning was applied. As we discovered, even highly valued, evidence-based practices do not serve all teachers in all circumstances well.

ORGANIZING FRAMEWORK

Policymakers and school district administrators, along with teacher educators, accept a theory of action which assumes that well prepared teachers should enter the classroom able to "hit the ground running" (Feiman-Nemser, 2001). Research describing high quality preparation, consisting of rigorous coursework and extensive field experience, concludes that those factors produce high quality teachers (Wilson, Floden & Ferrini-Mundy, 2002; Ronfeldt, Schwartz &

Jacob, 2014, Ronfeldt & Reininger, 2012, Ronfeldt, 2015). Putting aside issues like the perceived academic rigor of the university preparing the candidates, stakeholders expect all programs to enable teachers to perform well from the start.

Teacher educators have similar expectations. They assume that by selecting the right people with the right dispositions for the work; identifying the knowledge base and skills they need to do the work well; teaching them what they need to know and be able to do effectively; and providing them with an opportunity to practice under expert supervision, graduates will be well prepared. To some extent, historically, that model held true. The challenges teachers in urban centers like Philadelphia face today, however, call that model into question. The impact of poverty and immigration, the legal requirement to create inclusive classrooms supportive of a vast array of children with disabilities, the lack of concrete classroom resources (including books and technology) and the need to create resources, including curriculum, independently, the emphasis on data-driven instruction and standardized testing as a primary form of assessment, have all come together to create extraordinary challenges for schools and extraordinary working conditions for teachers in those schools. The amount of knowledge and experience necessary for teachers to succeed in this environment requires much more time and practice than currently offered through any pathway to classroom teaching. It's not surprising that a majority of teachers in our study felt unprepared.

Two factors influenced our thinking about the relationship between teacher preparation and teacher quality, both of which are well researched and provide a framework for our analysis, the influence of school context or teacher working conditions and the need for a continuum of teacher learning. As we discovered, working conditions powerfully influence teacher performance in the classroom. In addition, although there is research highlighting the critical impact of working conditions on teachers (Ingersoll, 2011; Johnson, Kraft & Papay, 2012, Simon

& Johnson, 2015), teacher education tends to minimize differences and focus teachers on best practices assumed to apply to all school settings. Although this approach has merit in the sense that teachers need to envision classrooms that model best practices, few real classrooms and actual mentor teachers conform to the models presented in their courses. Although programs assume that frequent and extended field experiences will better prepare high quality teachers, in fact, field experiences can undermine a focus on best practices by exposing pre-service teachers to classrooms and mentor teachers who fall far short of the ideal.

In an article on directions for teacher education research, Grossman and McDonald (2008) argue for the importance of situating teaching and learning in multiple contexts, including the school and the district as well as state and national policy. The character and quality of teacher performance does not emerge solely, or maybe even largely, as a result of their preparation, but, as we found, from the interaction between preparation and the school setting that determines their working conditions (Zeichner & Tabachnick, 1981). Some features of preparation, such as early exposure to the challenges of urban schools and contextual understanding of the conditions that create those challenges, do help teachers perform better. It is possible that pedagogical content knowledge and instructional strategies geared toward specific populations would also make a difference.

Many of the skills and strategies teachers need to learn, however, are rooted in clinical experience and are only mastered over time, as situations to employ them occur. As a result, teacher quality evolves as teacher dispositions and teacher preparation are tested and applied in specific school contexts. Because early career teachers are placed in such varying contexts, they often engage in professional trial and error as they test the effectiveness and applicability of their preparation.

Taking the context for teaching into consideration, we utilize Feiman-Nemser's (2001) idea of a continuum of teacher learning which extends beyond their preparation programs into at least the first two or three years of professional practice. Within that framework, teacher learning happens over time, across pre-service and in-service experiences. Teacher learning is not complete when graduates obtain certification and take over their own classrooms. Creating such a continuum demands cooperation and collaboration between the universities that prepare teachers and the schools that hire them and in which they hone their craft. This view of teacher learning over time greatly helps to explain our findings and situate teacher quality as a product of multiple factors, teacher preparation being only one.

METHODOLOGY

The data were drawn from a mixed methods study examining linkages between preservice teacher preparation and subsequent classroom performance in Philadelphia. We utilize a sequential-explanatory mixed-methods approach (Creswell & Clark 2007; 2011). This approach involved first collecting and analyzing quantitative data, followed by iterative analysis of qualitative data. The purpose of the quantitative component was to answer the question of effects of teacher preparation on later performance in the classroom. We were interested in analyzing whether different teacher education programs had measurable effects on student achievement and teacher effectiveness, as well as whether certain features of the programs (for example, emphasis on coursework and field experiences) mattered. Rather than investigating empirical support for the link between teacher preparation and later performance, the qualitative component sought to put elements of preservice preparation and daily lived experiences among urban teachers into sharper focus. We were interested in learning more about how teachers enacted lessons they learned during preservice and which aspects of their on-the-job learning were salient.

Participants. Our sample was drawn from graduates of eight university-based teacher preparation programs in the Philadelphia area. In addition to past program affiliations, experience teaching in Philadelphia as well as becoming certified between 2005-2015 served as additional criteria for sample selection. We compiled a list of more than 900 potential study participants to whom we sent an invitation to take our online survey. Approximately 540 current teachers returned surveys, which put the response rate at about 60%. However, some the respondents did not to meet our criteria of having taught in Philadelphia and they were excluded from the analysis. After removing ineligible respondents, there were 378 valid cases remaining.

Table 1 shows background characteristics for study participants. Our sample reflected local and national teacher demographics, for example, study participants were: 71% female, 73% white, 17% black, 4% Latino, and less than %1 Asian. About one-quarter (24%) of the sample were younger than 30 years old and nearly half were younger than 35.

For the qualitative component, we identified a conceptual subsample of 23 teachers who served as key informants. The qualitative sample was not random. Instead, we conducted descriptive analysis participants scoring on both ends of the distribution on three constructs: teacher self-efficacy, sense of mission, and perception of preparation. Additionally, we purposefully chose participants from different grade levels, program affiliations, school setting, and demographics (race, gender, and age). We also included participants from each of the eight teacher education programs in the qualitative sample.

Data Collection: Survey and School District Data. We created an online teacher survey as the initial data collection tool which was augmented with school district data. Items for the survey came from several sources. We adapted questions from the National Comprehensive Center for Teacher Quality and the Public Agenda (2008) survey, along with items from other sources (e.g. Rochkind, Ott, Immerwahr, Doble, & Johnson, 2007; Tschannen-Moran & Hoy,

2001; Watt and Richardson, 2006). A number of the survey questions were researcher developed and specific to the present study. The survey instrument focused on teachers' experiences during their preservice training (for example, coursework, field experiences, supervision), during their first year of teaching (the transition, the school setting, the climate and feelings of preparedness), current experiences (such as working conditions, administrative supports, curriculum, pedagogy and student demographics), and general attitudes toward the profession. There was also a battery of items on teachers' reflections on navigating the first year of teaching, along with questions about their credentials. A final section asked about background information such as age, sex and racial identity.

TABLE 1
Teacher Background Characteristics for the Full Sample (*N=378*)[†]

Characteristic	N	%
Teacher Race		
White	244	73
Black	56	17
Latino	12	4
Asian	10	3
Native American	1	<.1
Other	8	2
Multiracial	5	1
Teacher Sex		
Female	238	71
Male	98	29
Teacher Age (categorical)		
23 to 29	80	24
30 to 34	82	25
35 to 39	55	17
40 to 49	64	19
50 or older	49	15

[†] *Missing cases excluded, columns might not sum to 378.*

To validate the survey instrument, a pilot was administered to respondents at partner institutions. Once teachers completed the pilot survey online, cognitive interviews were conducted. These interviews involved, a researcher on the team walking through the survey with the respondent, item by item and asking questions about clarity and relevance.

We merged teacher survey data with school district data containing information on student achievement and what the district refers to as teacher effectiveness data. Achievement data included standardized assessments at each available grade level. Teacher effectiveness data was numeric scores based on principals' observations of teachers in four domains adopted from the Danielson framework (Danielson 2008), which is standard in Pennsylvania. Because teachers were not observed every year, there was a considerable amount of missing teacher-level data in the district files, which was not random. After removing cases with missing values on the core dependent variables, we were ultimately left with 378 valid cases for the survey and 250 for the merged data file.

Teacher Interviews and Observations. Each participant in the qualitative sample was interviewed twice. Interviews were conducted pre- and post- whole day classroom observations and shadowing. Pre-observation interviews lasted between 20 and 45 minutes and were conducted over the phone while post- interviews took one or two hours. The post-observation interviews were conducted in teachers' classrooms and were facilitated by one or two researchers. Interviews allowed participants to share their personal teaching stories and to highlight their own background, teaching experiences, teaching practices, successes and challenges, and reflections on their pre-service and professional experience. Additionally, these interviews served to familiarize the research team with the teachers' professional trajectory, attitude towards the profession, approach to teaching, and current teaching context.

We further conducted approximately 160 hours of classroom observations. The interviews were sandwiched by a full day observation of each of the teachers in the qualitative sample. For most participants, we observed lessons and shadowed them during prep periods and lunch, as they interacted informally with colleagues and students. Classroom observations enabled us to develop a context for participants professional practices and setting; however, that data was less useful in determining the impact of preparation on performance. Observations focused on three primary aspects of classroom teaching: relationships with students, climate, and instructional practices. We took extensive field notes documenting specific instructional practices and strategies employed by the teacher, teacher-student interactions, and the overall climate of the classroom as well as the surrounding school setting.

Data Analysis. We began by running descriptive statistics on the full sample in to identify and recruit participants for the qualitative sample. From that point, our qualitative and statistical work continued on parallel paths. While the epistemic assumptions of the qualitative and quantitative components were different, we iteratively compared patterns across them to better understand the degree to which they informed each other.

Quantitative Component. Analysis of descriptive statistics illuminated patterns across teacher backgrounds and revealed the prevalence of certain items, such as the number of teachers who chose to work in Philadelphia and the range of teachers who felt prepared to teach in urban classrooms. Additionally, we used descriptive statistics and correlational analysis to build constructs for the multivariate models. Ordinary Least Squares (OLS) regression analyses were used to first model effects of teacher preparation and background on student achievement and teacher effectiveness. As we elaborate below, our models included key program features (such as coursework and field experiences), along with each of the teacher education programs as fixed-effects. Because there were no discernable significant effects on achievement or effectiveness,

our subsequent models depicted effects of preservice experiences on the degree to which teachers reported being prepared for the first year of teaching.

Qualitative Component. To analyze the qualitative data, we drew from Lichtman's (2013) "3Cs" process of coding, categorizing, and conceptualizing. First, interview transcript data was read through once, in its entirety, to identify initial codes. Next, we assessed the initial coding scheme to consolidate common codes and edit out redundant ones. After culling through and revising the codes, we categorized them around bigger themes emerging from the data. We organized the themes around our research questions but allowed teachers voices to lead us to dominant ideas pervading their perceptions of pre-service and current experiences. Such ideas included struggling with the transition to teaching; reality shock; the lack of hands-on training, classroom readiness skills; and the dependence on peers.

FINDINGS

Findings from our analysis emerged around five themes: (1) the difficulty of transitioning from student teacher to teacher; (2) reality shock; (3) the powerful influence of working conditions on classroom practice; (4) the importance of peers in socializing new teachers, and (5) teacher perceptions of preparedness. Consistent with prior research, however, the results revealed no empirical connection between teacher education program experiences and effects on student achievement (Darling-Hammond, Chung & Frelow, 2002; Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2008). Neither were we able to find evidence of significant differences in teacher education program attended and subsequent teacher effectiveness.

We begin with a discussion of construction of the composite variables for the multivariate models, followed by interpretation of the models themselves. We conclude by linking lessons learned from each component. Survey items were combined to create composite constructs with greater statistical power. We used exploratory factor analysis, along with

reliability tests to create five composite variables measuring teachers' self-reports in the following areas: Prepared to teach; teacher self-efficacy, teacher expectancy value; coursework as helpful; and ratings of cooperating teachers and university supervisors.

Prepared to teach. In operationalizing self-reported measures of teachers' feelings of preparation, a battery of 16 items was used to create three composite variables which were later modeled as dependent variables. Specifically, teachers were asked "Think about your first year as a teacher and your current level of comfort on the job. How well prepared did you feel at the beginning compared to now? Please indicate your preparedness and comfort in each of the following areas." The specific items included "creating a classroom community," and "implementing new learning standards," along with other aspects of teaching. The results of the exploratory factor analysis reveal two distinctive components within each mix of variables: what we called "instructional" aspects of teaching, and a "work life" dimension. Additionally, the whole battery of 16 items hung together well as a single construct with a high reliability score (α=.935). We ultimately found empirical support for two constructs measuring teachers' level of preparedness to teach in the first year (instructional, and the full 16-item mean), along with a third construct for prepared to teach now.

Teacher Self-Efficacy. As mentioned earlier, the teacher efficacy items were adapted from the work of Tschannen-Moran & Hoy (2001). Survey respondents were asked to "think about your current teaching role in answering the following questions," which included: "How much can you do to craft good questions for students? How much can you do to implement a variety of assessment strategies? And, how much can you do to provide an alternate explanation?" Response categories ranged from 1 to 9, where 1 equals "nothing" and 9 "a great deal." Teacher self-efficacy was a12-item composite variable a cronbach's alpha of .942.

Teacher Expectancy Value. Expectancy value theory stems from the work of Atkinson (1964), who posited that an individual's motivation to pursue a task considers the subjective probability that the individual will complete the task, the desirability of that task compared to other tasks, and the level of performance an individual must apply to a specific task in order to complete it. Building on Atkinson's work, Eccles and colleagues (1983) developed an expectancy-value model. This model used an individual's value of a task (*subjective task value*) and their expected success for that task (*expectancy for success*) to predict the likelihood of pursuing future tasks.

We used the concept of teacher expectancy value, referred to below as teachers' sense of mission, to gain insight into teachers' perceptions of their work as valuable and personally rewarding. Since education researchers cannot always measure the direct benefit of an action, such as pursuing urban teaching as a career, using satisfaction or happiness as a proxy, we instead devised ways of representing and measuring utility in terms of measurable economic choices. In this 7-point Likert-type scale, the response categories were: 1 equals "not at all important" and 7 equals "extremely important." The reliability coefficient for this composite variable was α=.745.

Coursework as helpful. Kumar & Lauermann (2018) asserted that the sheer amount of time spent in teacher education class can make a difference in pre-service teachers' attitudes and beliefs about urban students and "their discomfort in interacting with students they perceive as other" (p. 428). To examine coursework taken during pre-service we chose to focus on whether teachers viewed their classes as *helpful,* rather than on specific course-taking patterns. Our rationale, based partly on arguments that course taking differs only slightly across teacher education programs in the study. Most of the courses and competencies required for certification, with some exceptions, are determined by the Pennsylvania Department of Education rather than at the program or institutional level. Focusing on self-reports of whether specific courses

“helped” revealed which courses resonated and which did not. Ours is not a measure of exposure to certain course content. Instead, it’s a measure of the degree to which respondents took away something meaningful from the course. The fairly high reliability for this construct (α=.829) suggests coursework was either helpful or it was not. The factor analysis revealed the 12 items as a single component. In other words, respondents who reported that coursework on how students learn was helpful were equally likely to report courses on classroom management were helpful.

Cooperating teachers and university supervisor. As discussed earlier, the role of the cooperating teacher (that is, the teacher of record who work with student teachers at their placement sites) and the university supervisor (who follow them out into the field to provide guidance and mark progress) was of considerable interest to us. These supports are provided during a formative period in teacher preparation and are expected to play a key role in socializing pre-service teachers to the urban classroom. We created two composite variables from a battery of survey items asking respondents to rate the level of support received in several important areas. The distribution of responses suggest survey participants rated support received in most areas somewhere between “good” and “fair.” However, although the differences were not statistically meaningful, participants reported slightly more support in classroom management than working with special needs students or helping struggling students. The strong Cronbach’s alphas for the cooperating teacher (α = .940) and university supervisor (α = .962) constructs, resulting from the reliability analysis suggests participants’ ratings across each of the areas was more consistent than varied.

Results of the Multivariate Analysis. While nonsignificant results are seldom reported in the literature, the primary goal of the multivariate analysis was to examine linkages between teacher education programs and experiences and outcomes for students and teachers. To that end, the initial set of regression models specified student achievement and teacher effectiveness

measures as core dependent variables. As described earlier, the school district provided state assessments at each grade level and content area (DRP, PSSA, Keystones) mapped on to each participant. We created composite variables for each test and then combined achievement measures using z-scores. Because the study sample was spread across all grades and content areas, there was no single measure of student achievement which could be applied full sample. We began constructing the student outcome variables with the Pennsylvania Keystone exams, averaging scale scores across each subject area (algebra, biology, and literature) to create a composite variable. We repeated this process with the PSSAs and the early grades reading assessments. We the computed z-scores for each assessment and averaged the z-scores to create the student achievement variable which was used in the analysis. We ultimately found no significant effects of teacher education programs or experiences on standardized student achievement. We similarly found no empirical support for impacts on teacher effectiveness.

Finding no direct linkages of teacher education programs to later evaluations by principals or to student achievement, we proceed by examining effects on two potentially important outcomes of teacher education: teacher self-efficacy and preparation for teaching. Table 2 shows the standardized regression coefficients for the effects of teacher and program characteristics, and certification program attended, on teacher self-efficacy, controlling on teacher background. As depicted on the table, neither teacher background nor the teacher education certification programs (which were entered as dichotomous variables in this model) were significant. What appeared to matter most in predicting teacher self-efficacy were teacher expectancy value (β=.270; t=4.293), perceiving coursework to be helpful (β=.180; t=2.776) and desire to teach in Philadelphia as a first choice.

TABLE 2

Regression Coefficients of Effects on Teacher Self-Efficacy

Variable	Model I		
	beta (unstandardized)	β	t
Constant	1.664		
Teacher Background			
Age	.005	.043	.663
Female	-.018	-.006	-.108
Black	.321	.093	1.550
Latino	-.236	-.034	-.570
Teacher and Program Characteristics [a]			
Teacher expectancy value	.443	.270	4.293 ***
Coursework was helpful	.547	.180	2.776 ***
N field experiences	.035	.043	.683
N weeks with cooperating teachers	-.026	-.019	-.306
N weeks with university supervisors	.074	.058	.887
Support from cooperating teachers	.062	.045	.660
Support from university supervisors	.011	.008	.110
Teaching in SDP was first choice	.333	.126	2.102 *
Teacher Education Certification Program [b]			
Bryn Mawr	.609	.064	.827
Drexel	.244	.035	.383
Eastern	.667	.193	1.249
Holy Family	.844	.256	1.618 ~
LaSalle	.521	.095	.897
St Joseph's	.946	.292	1.820 ~
Swarthmore	1.774	.122	1.817 ~
Temple	.654	.235	1.290
R^2	.490		
Standard Error of the estimate	1.170		
Degrees of freedom/total	250		

significant levels of *P* p<.10~; p<.05*; p<.01**; p<.001***

[a] Three schools (Holy Family, St. Joseph's, and Swarthmore) were nearly significant at p <.1

[b] White respondents were the excluded-reference category in this models.

By modeling teacher self-efficacy as a dependent variable, we intended to investigate whether differences existed across the teacher education programs themselves, along with

particular characteristics of the program in producing efficacious graduates. Table 2 shows differences across programs were largely nonsignificant; however, the coefficients for three programs (two religious universities, and one small liberal arts college) were nearly significant ($p < .10$). Instead, teachers with high expectancy values, or those who chose to become a teacher to work against social disadvantage, to make a worthwhile social contribution, to work with children and adolescents, and the like, had the highest self-efficacy.

A summary of the findings from the multivariate models is presented on Table 3, standardized regression coefficients depicting effects on: “Prepared to Teach First Year,” “Prepared to Teach-Instructional,” and “Prepared to Teach Now.” As we did in the model above, we entered dummy variables for each of the teacher education programs participating in the study (not shown on the table). None of the programs correlated significantly with any of the preparedness dependent variables. However, small liberal arts colleges in the analysis had small but positive coefficients which were nearly significant ($p <.1$) but these results were inconsistent.

The results of this analysis also suggest differences across teachers’ race as black teachers self-reported higher rates of preparedness for the first year of teaching ($\beta=.162$; $t=2.969$), as well as higher instruction-specific preparation ($\beta=.178$; $t=3.297$). Regarding age, while older respondents were no more or less likely to report being prepared for the first year of teaching, they did report being prepared to teach now in higher numbers ($\beta=.199$; $t=3.022$). But the main finding from this analysis was that certain program and teacher characteristics correlated with self-reports of preparedness for the first year of teaching. Specifically, regarding program characteristics, coursework viewed as helpful ($\beta=.265$; $t=4.492$), and support from university supervisor ($\beta=.299$; $t=4.517$) were both significant predictors of feeling prepared to teach the first year. Results for the instructional aspect of preparedness, shown in the middle columns, had a similar pattern of results. However, here, time spent with the cooperating teacher

TABLE 3
Regression Coefficients Depicting Effects on Prepared to Teach First Year, Prepared to Teach-Instructional, and Prepared to Teach Now

Variable	Prepared to teach First Year Model III		Prepared to teach First Year *Instruction* Model III		Prepared to teach Now Model III	
	β	t	β	t	β	t
Constant		.103		.118		3.389
Model I: Teacher Background						
Age	-.042	-.704	-.071	-1.216	.199	3.022 ***
Female	-.074	-1.362	-.074	-1.366	-.055	-.913
Black	.162	2.969 ***	.178	3.297 **	.028	.468
Latino	.068	1.252	.072	1.348	-.025	-.408
Model II: Teacher and Program Characteristics						
Teacher expectancy value	.011	.185	.007	.115	.217	3.419 ***
Coursework was helpful	.265	4.492 ***	.285	4.884 ***	.148	2.265 *
N field experiences	.054	.935	.042	.734	-.015	-.237
Weeks with cooperating teacher	.109	1.893 ~	.126	2.202 *	.049	.767
Time with University Supervisor	.081	1.366	.074	1.253	.043	.655
Support from cooperating teacher	.055	.886	.041	.667	.062	.899
Support from university supervisor	.299	4.517 ***	.299	4.561 ***	.084	1.141
Teaching in SDP was 1st choice	-.010	-.175	.010	.193	.182	2.998 **
Model III: (*all nonsignificant*) Bryn Mawr, Drexel, Eastern ,Holy Family, LaSalle, St. Joseph's, Swarthmore, and Temple						
R^2	.372		.385		.263	
Standard Error of the estimate	.690		.689		.567	
Degrees of freedom	250		250		239	

significant levels of P p<.10~; p<.05*; p<.01**; p<.001***

was also significant (β=.126; t=2.202). The coefficients for "coursework was helpful" were also significant in the third equation modeling teachers' self-reports on prepared to teach now (β=.148; t=2.265) shown in the columns on the right. Teacher expectancy value (β=.217; t=3.419), discussed above, and teaching in Philadelphia as a first choice (β=.182; t=2.998) were also significantly correlated with reports of prepared to teach now.

Because they provided useful context for interpreting interview and observation data, we used survey results to guide our qualitative analysis. For example, since survey respondents were practically unanimous in citing student teaching as the most influential part of their pre-service experience, we asked focused questions about student teaching during the interviews. Analysis of descriptive statistics was useful in this regard. For example, as shown on Table 4, only 29% of the respondents reported feeling "prepared "or "extremely prepared" to work effectively in an urban classroom, while 62% were "not at all prepared" or "somewhat prepared." Regarding the task of teaching unmotivated students, 14% were "prepared "or "extremely prepared" and 73% were "not at all prepared" or "somewhat prepared." There was a similar pattern for working with diverse students and engaging students in meaningful learning.

The results of the descriptive analysis raised important questions about how teachers are prepared to teach in high needs schools. The quantitative analysis revealed significant findings on self-reports of preparation to teach. We focused our qualitative analysis on deepening our insight into teachers' first year of teaching, along with their experiences over time, and the features of their preparation programs that did or did not influence the transition to teaching and their classroom practices. In our analysis of the interview and observational data, several themes emerged which provided helpful context for interpreting the quantitative data. These themes provide insight into how teachers in Philadelphia adjust to their professional roles, what

challenges they face, and what factors influence whether they felt prepared to succeed. Two teachers in the qualitative sample were in their first year. For the other participants, our analysis was reflective and also focused on practices teachers had adopted over several years. In general, teachers spoke eloquently about their first year of teaching, a milestone for all classroom teachers.

TABLE 4

Frequencies on Select Items Depicting Participants' Self-Reports on Preparedness to Teach in the First Year [†]

Responses for first year only: *" Think about your first year as a teacher and your current level of comfort on the job. How well prepared did you feel at the beginning as compared to now? Please indicate your preparedness and comfort in each of the following areas."*	Prepared or Extremely Prepared		Neither Prepared nor Unprepared		Not at all Prepared or Somewhat Prepared		Total N
	N	%	N	%	N	%	
Teaching unmotivated students	49	*14*	43	*13*	247	*73*	339
Working with diverse students	132	*39*	37	*11*	170	*51*	339
Engaging students meaningfully in learning	123	*36*	32	*9*	186	*56*	341
Working effectively in an urban classroom	98	*29*	33	*10*	209	*62*	340

[†] *Percentages might not sum to 100 due to rounding.*

The interview data provided a richer understanding of connections between teacher preparation and job performance. Although we asked many questions to elicit from participants the extent to which what they learned in preservice influenced their teaching, we found such influences significantly mediated by the school settings in which first-year teachers began their careers and by future settings. Teachers evaluated what they learned in their preservice programs based primarily on whether or not it applied to the daily circumstances they confronted.

Participants believed that in different circumstances, in affluent suburban schools versus high-poverty city schools, for example, different pedagogical practices might become more or less useful. We describe teachers experiences below, using their own words from the interview data. Again, we highlight the emergent themes of transition to teaching, reality shock, impact of school context and dependence on peers, and perception of preparation.

Transition to teaching. Based on our data, first-year teachers in Philadelphia struggle with the transition to teaching and require more support and more direction than they currently receive if they are going to experience some sense of efficacy and acquire the skills they need. Margaret, an elementary school teacher, told us:

> Honestly in the very beginning it was like sink-or-swim. I felt like I was just trying to keep my head above water and turn in all the paperwork for the principal, try to have lesson plans done, try and make sure I was teaching. I think I was able to implement a lot of the strategies once I got a little more comfortable in my routine. I think in the beginning it was difficult. It was hard, it's hard to be a first-year teacher.

The challenges highlighted by Margaret dovetail quantitative findings that first year teachers have less self-efficacy than teachers with more teaching experience. Upon completion of their teacher education programs, new teachers feel prepared for the classroom and expect to experience much more success than they do. However, many are surprised by how hard the job of teaching actually is. As Joan, an elementary teacher, stated "if anything, this is the reason I filled out that survey was to tell you guys that it's hard. Say goodbye to your (pre-service) professors. You're on your own." For Danielle, a secondary science teacher, the transition was difficult because she lacked an understanding of what an appropriate set of competencies would be for an early career professional. She explained: "I think I

could have been better prepared sort of for a good dose of failure those first couple of years… I think I was prepared well but a lot of it is you get thrown to the wolves and you figure it out or you don't."

The expectation new teachers begin the job ready to perform in whatever classroom situation awaits them is debunked by a number of researchers (Feiman-Nemser, 2003) as well as by our data. Based on our analysis, it takes time, at least two or three years, for teachers to learn the ropes and settle into their roles. Yet many new teachers begin their careers with high hopes of immediate success inspired, in part, by their prior field experiences and what they are taught in their classes. Jada, an elementary teacher, explained, "I think that teachers are usually under the impression that the classrooms are going to be what the books are telling them, which is not true." When the reality new teachers confront seems so at odds with the lessons learned during pre-service, they begin to doubt the validity of what they were taught. They find themselves "adapting," as Margaret told us, "So your expectations are really high, which they should be, because you learned all about these ideal circumstances and then you go, okay, now I need to adapt for the real world." As a result, the learning trajectory during the first few years of teaching, which puts to the test what they learned during pre-service, emerges as equally important, if not more important, than the learning absorbed from their pre-service programs. For many of the participants, there is no substitute for the real thing. As Kent, a high school science teacher explained to us, "Nothing prepares you for teaching the way doing it does."

Many new teachers in our study felt overwhelmed by the level of responsibility for children's lives entrusted to them right from the beginning. They felt unprepared for that and for the degree of autonomy they experienced behind the closed (and often locked) doors of their classrooms. While some teachers, mostly more recent graduates, were assigned mentors that visited frequently, served as emotional sounding boards, and provided feedback and instructional resources, the majority of these relationships fell short. Many teachers had coaches who visited infrequently and offered little in terms

of constructive feedback. Kent, a high school science teacher, liked his coach who was very positive about his performance but found her lack of critical feedback unhelpful:

> On one hand it's nice to have someone who can externally come in and watch what you're doing and say, "Hey you're not a screw up. This is awesome. Great job." On the other hand, I don't necessarily mind being a screw up in some ways, in minor ways, and what I would really have liked some more, more like critical feedback--just like how can I get way better?

Many teachers were aware of their gaps in knowledge and practice and were eager for feedback from more experienced professionals, similar to the feedback they had received as student teachers from their university supervisors and cooperating teachers. Maureen was disappointed because her coach focused more on her appearance than helping guide her instructional practice. Unlike other teachers, Maureen was fortunate enough to be assigned an additional mentor from a local teacher support network, someone she appreciated much more. This additional mentor not only provided her with institutional knowledge about the district but was also helpful "in terms of some of the nitty gritty {of teaching}." Lacie was also assigned an experienced teacher as her mentor, but although Lacie's mentor had extensive experience, Lacie did not feel she was able to impart it to her in meaningful and tangible way.

The practice of routinely assigning new teacher coaches is relatively new in Philadelphia. The school district tried it successfully some years ago, but they only recently made it available to all new teachers. As a result, many of our teachers did not experience coaching. Although the state of Pennsylvania mandates that teacher preparation programs provide induction to their graduates, those in the Philadelphia region have never established induction programs, largely due to the expense and the difficulty of keeping track of their teachers once they graduate. The

school district conducts a mandatory induction program for new teachers, but they are not required to complete it until they seek their Level II certificates, which they are required to obtain only after six years of teaching, and quite a few of our teachers postponed it until it became less than useful. For the most part, teachers found that the induction program, which demanded quite a few hours of attention, did little to help them with their day-to-day concerns in their school settings.

At the end of the semester or year, several teachers were forced to transfer but most sought a better placement and migrated to schools in which they imagined they could be more successful, and most did feel more successful. The majority of our sample of 20 participants started at schools that were ranked in the bottom half of Philadelphia schools or were unranked schools that focused on a particular high needs population, such as adjudicated youth. These starter schools, both public and charter, had other commonalities: the schools in which many of our participants began their teaching careers were unstable or undergoing significant changes in the span of a few years. These changes included turnover in leadership; transitioning to a Promise Academy, which involved an infusion of resources designed to improve school performance; restructuring; and even closure. One participant experienced two school closures before ending up in a school ranked 75 out of a 100. It was not easy for new teachers to find a place to settle down.

Reality shock. Even teachers who completed early field experiences and student teaching in Philadelphia schools suffered from shock when they encountered the reality of lack of resources, including books and paper in some cases; the student behavior; and the negative climate of high needs schools where many new teachers get placed. Even when they changed schools and encountered a new school culture, it took time to adjust, highlighting the critical

influence of school culture on teacher performance. Kate, a high school English teacher, who was prepared at a small liberal arts college, told us that even after six years in one high school where she felt well established and successful, she floundered when she changed schools:
I had a really, really, really rough year last year, in my first year here, because it was another huge cultural shift, both in terms of what the school is trying to do and how the school is trying to see learning and do learning, and also because there is a very big difference between the kids here and the kids at (her previous school). They were much more middle class. The kids here are very, very, very poor.
Kate also explained how expectations varied greatly between schools. Different schools had different expectations for teachers, which teachers had to learn, she told us:

> It just means I get cursed out a lot more here. I have a lot more kids who will go a week where they're not really capable of doing anything. As a teacher, when do I push, and when do I bring in parents, and when is it not a good idea to bring in parents, and when can I reach out to their friends to help with them, and when can I reach out to other adults to step in?

The school culture emerged as a critical component of their experience. As David, a high school math teacher, reported, “Sometimes it doesn’t feel like a place where anyone could get any learning done across the whole school. They’ll be interruptions throughout the day, students that just go from class to class, whatever they want to do.” In some cases, the lack of order and focus on learning presented overwhelming and seemingly insurmountable challenges. Several teachers also spoke of feeling unprepared for the trauma and the violence they confronted. Brooke, who taught at an alternative disciplinary school, told us about the schock that followed after learning that one of her students had been killed. She told us: “That was one of the things

that hit me the hardest. My second year as a teacher I get an email September 13th ... It was the second week of school...that one of my students had been shot and killed. You never forget the first kid. He had a daughter."

Not many teachers reported much background in urban education issues or much familiarity with poverty; those who came from similar backgrounds or had at least studied urban environments felt better prepared. In many cases, teachers entered the classroom woefully ignorant of the challenges poverty creates in schools and unfamiliar with the day-to-day experiences of children and families from cultures very different from their own. As Matthew, a high school teacher, told us, "Where I'm teaching in Philadelphia, I don't want to say it's a different world, but it's a different world." In order to survive, they had to adjust. Brooke told us, "Something switched in me and I just got real tough. I was like, 'Sit down, shut your mouth. I don't want to hear it.'"

As they became familiar with the real lives of their students, teachers found the goals they had set for themselves compromised by the school contexts they encountered. They struggled to make sense out of that context, so that they could begin to feel successful. Lacie, a middle grades science teacher, explained:

> You can see why it's (education) not valued as much here. Their parents didn't go to college...You want them to do that and you want them to see the value in it, but it's like then you're at work against all of these other things in their lives where this isn't what's important. It's the sneakers you have on your feet and whether or not you have a snack and something to eat during the day. There's these much bigger concerns that it's like if

> these aren't addressed, then they're not going to care about the fact that they did this really amazing science thing.

No one was helping them address the pressing physical and psychological needs of their students. On the contrary, the message from their schools was to focus on academics; they were neither encouraged nor expected to do anything else. Without the ability to address more pressing student needs, they struggled to meet the academic needs of their students, often below grade level in basic subjects like math and reading. The pedagogy they had learned seemed too ambitious for their students, and they fell back on practices their programs discouraged them from using like worksheets.

That lack of cultural competence, which led in part to the shock they experienced, often reinforced stereotypes and helped teachers rationalize low expectations. Unless that narrative was countered by peers or school leaders, which in most cases it was not, teachers came to accept low standards and negative behavior as the norm. Only those teachers whose programs focused more intensely on developing an understanding of the socio-cultural foundations of urban education, generally graduates of the small liberal arts colleges in the study, brought with them a counter-narrative which informed their practice and enabled them to critique the prevailing standards in their schools. That difference highlighted the need for increased focus on cultural competence, specifically addressing (a) the realities of school culture and climate in low-performing and high poverty schools and (b) how teachers might survive in and even influence that climate.

Impact of School Context and Dependence on Peers. Many of the teachers in our study felt isolated during their first year of teaching and unsure about their professional responsibilities, including how to manage their classrooms and how to instruct their students in a

way that met the expectations in their specific school setting. Over time, they sought settings that offered them a sense of community and shared mission, where teachers came to work for more than their paychecks. When they found a supportive community, they felt more confident and more motivated. For Brin, her school features a close teacher community which has eased her professional transition. She told us: "I like working here because I feel like the staff is very involved in their job. We have to go to extra trainings because it's a promise academy and put in extra hours, and I think the staff wouldn't be here if they didn't really like to teach, which is why I like it. It's a good community to be in."

Norms vary from school to school, and new teachers, lacking the support of their pre-service programs and without direction from school administrators, turned to their peers for guidance. Without supportive peers, they floundered. Before he got situated, Bob went from school to school. When he was called back to a school for a second time to become a long-term substitute for a woman going out on maternity leave, he had a negative encounter with the principal: "When I came back the second time, I came walking back through the door and he just said to me, he threw me the keys, he said, "Your old room." That was it. No hello, good to see you again, thanks for coming back. Just literally went, "Your old room." I should have just caught them and walked out." A career changer, Bob's peers didn't realize he was inexperienced until he had difficulty with some parents. At that point, they pitched in to help him, "So we just got talking and they realized I hadn't been teaching for a long time. They took me under their wing and helped me with lesson plans and doing this and that, classroom management, suggestions, what to do."

In schools with clearly articulated procedures and expectations and teachers who share the school leader's vision, the guidance of peers helps socialize teachers and acclimate them to

the school's culture so that they can become part of a positive and supportive teacher community. Kim was hired at the school in which she student taught and was able to rely on her peers to help her settle into her own classroom: "... any time I had a question I knew I can go to so many people and they can always give me a strong understanding as to what I need to do. They're always there, so they're pretty cool with it. They're pretty awesome." In addition to providing Kim with curricular support, her more experienced peers helped to fill the gaps in her preparation by providing her with more strategies to work with diverse learners and different behavioral management strategies for some of her more behaviorally challenging students. As an early career teacher, she sees herself in an ideal situation: "I have slowly come into my own at the school, where I am developing very good relationships with parents and obviously with my coworkers and the administration.

In many schools in which the teachers in our study started out, however, that type of positive teacher community did not exist. In those situations, the grade partners and department chairs whose help the teachers sought out set a low bar for acceptable teaching practice and tended to socialize new teachers to the status quo. While novice teachers had a sense of good teaching practices after completing their preparation programs, the standards set for them by their programs did not align with the daily practices of their peers in their first and early years of teaching. This experience of disjuncture caused them to doubt many of the strategies and theories they learned in pre-service. In some cases, those doubts weakened the influence of their preparation programs, which in comparison to what they witnessed in their schools, had taught them to focus more on engagement and instruction, set higher expectations, and treat students differently. In these cases, new teachers adapted to their surroundings rather than follow the prescriptions of their pre-service programs. If the takeaways from teacher preparation programs

are not reinforced and their utility is not demonstrated in the classroom, the process of preparing teachers becomes an empty exercise. As Margaret, an elementary school teacher who in six years had taught four different grades, told us, “So your expectations are really high, which they should be, because you learned all about these ideal circumstances and then you go, okay, now I need to adapt for the real world.”

Feelings of Preparedness. Although many policy makers believe that teacher preparation can make or break a teacher, we saw few signs of that. Because of the specific state accreditation requirements for programs that prepare teachers in Pennsylvania, they tend to be more alike than different. This is consistent with findings in other studies. Some programs feature more time in the field, and some approach teacher training from a more academic perspective creating stronger context, especially around teaching in high-needs urban schools; but all offer essentially the same courses and the same types of pre-service experiences including a semester of student teaching, as required by the state department of education.

Teachers in our study had some useful suggestions for their programs, including more emphasis on hands-on, classroom-ready skills. Lacie told us: “You need actual procedures, and you need to figure out how they're going to get pencils, if they're going to sharpen the pencils, if they're going to raise their hands, if they're not going to raise their hands. Are they going to go to the bathroom or not? Is there going to be a procedure for them going to the bathroom, and what does the school want you to do?” Kent described his coursework as less useful than just getting into the classroom and teaching: “Almost everything I think I actually learned, I learned from my cooperating teacher and just being actually in the classroom and trying to do stuff.” Many argued for less theory and more exposure to the kind of low-performing, high needs

schools in which many of them ended up teaching, at least initially. Those suggestions did not vary greatly across teachers prepared by different institutions.

A few teachers, however, spoke eloquently about the need to contextualize their experience:

> There are so many different layers to this work, and that good teaching is an engagement with the society within which you are teaching...the work is so much richer when you can bring a theoretical frame to it, and so much richer when you can bring a social justice mission to everything. (Kate)

Deeper understanding, often provided by courses in urban education or program faculty, provided a framework for making sense out of circumstances that could otherwise be overwhelming and incomprehensible for teachers whose mostly middle-class backgrounds made it difficult for them to identify and empathize with students and families whose circumstances and values were so different from their own. As Brin told us, “I've always been very political. I'm very into social issues. Also, when I was (in pre-service), I took a bunch of classes that were really interesting to me about just inequalities in the school system and institutionalized racism, and it really made me realize that that's where I wanted to focus my teaching.” Teachers like Brin whose preparation programs gave them some perspective on educational inequity and poverty felt better prepared when they started teaching. Many teachers shared Brin’s sense of mission, which was correlated with feelings of preparedness in the quantitative data, but it needed to be fostered or reinforced in their programs in order to elevate their work and provide some perspective on what they were experiencing. Not all programs provided that perspective.

Teachers did not criticize their programs a lot, although they recognized their shortcomings. Many wondered if anything could prepare them for the situations they encountered. They appreciated the support their programs provided and the relationships they formed with instructors and mentors. Those relationships, rather than any specific strategies, seemed to matter the most. Many teachers spoke of feeling isolated and viewed the time they spent in student teaching with their university mentors somewhat nostalgically. Some teachers maintained relationships with cooperating teachers or mentors in their programs and sought their advice over time. In order to adjust to their professional roles, persist in their jobs and perform at high levels, teachers clearly needed opportunities either to maintain those early relationships or to have access to substitute mentors who could take the place of cooperating teachers and university instructors. The lack of relationships with supportive mentors made the first year and sometimes years after a difficult struggle for many teachers.

Perhaps the most critical takeaway that emerged from the study centered around the inability of teachers to apply what they learned on their own. Although they learned the latest pedagogy, they had difficulty using it or adapting it with students who seemed unprepared and unskilled, often reading below grade level. Without supports, teachers floundered. Most describe learning what they need to know by taking initiative, getting help and just figuring it out. Unfortunately, just figuring it out does not necessarily lead to the outcomes that teacher education programs and policy makers envision when they think about the preparation that results in high quality teachers.

DISCUSSION

The policy world has paid considerable attention to the preparation of teachers in the last few years, assuming a close connection between teacher preparation and teacher performance in

the classroom. Yet, the lack of convincing, high-quality research into the impact of teacher preparation on teaching practice and student achievement is well documented (AERA report, 2005). Research investigating traditional and alternative pathways to teaching have failed to conclude that one approach or another has definitively better outcomes (Darling-Hammond, 2002). Overall, efforts to determine whether particular features of teacher preparation programs have a direct impact on teaching have yielded disappointing results. Our findings suggest that it is difficult to demonstrate a direct relationship between how teachers are prepared and their effectiveness in terms of their self-perceptions, their principal evaluations or their ability to impact student achievement.

Still, in seeking to answer the question about preparation practices that work better than others, there are important lessons to be learned from the experiences of the teachers in our study. Teachers who chose to teach in Philadelphia, influenced by a sense of mission, fared better than those who could not find employment elsewhere. Probably because of the high concentration of African-American students in the district, black teachers feel better prepared to teach than white teachers. Teachers who felt that their coursework was useful and who spent more time with their cooperating teachers felt better prepared as did teachers who valued their university supervisors.

There is considerable literature that suggests that pre-service teachers need opportunities to observe teachers who employ the practices they have been taught; our research suggests that they also need opportunities to observe practice in high needs schools and to learn strategies for overcoming or at least coping with the status quo, the student behavior, school cultures and lack of resources and supports that characterize those schools. Courses that contextualize urban education and provide a framework for understanding urban school settings also add value.

Movement away from the ideal toward the real in classroom practice would enable teachers to approach the classroom with more measured expectations and a more useful repertoire of classroom practices.

Most importantly, the need to view pre-service learning in the context of Philadelphia school settings emerged clearly in our study. Whatever theories and strategies teachers learned during preparation became salient or not largely on the basis of the dominant practices and attitudes in their schools. Since peers largely mediated teachers' understanding of those practices, the need to ensure access to peers whose teaching supports what teachers have learned as best practices or who can at least counter the influence of those who support the status quo has implications that teacher preparation programs alone cannot address.

Instead of blaming teacher preparation programs for teacher performance that fails to meet expectations, administrators and policymakers would do well to acknowledge that high quality, resilient, dedicated, professional teachers are produced jointly by preparation programs and the schools that employ their graduates, especially in the early years of their careers. Schools and preparation programs need to work collaboratively not independently to increase new teacher job satisfaction and effectiveness as well as to stem the tide of teacher attrition. That collaborative work could take various forms. Teacher residency programs, which require commitment from both preparation programs and school districts, provide a good example of such collaboration. Models of teacher preparation that respond to the needs of the teachers in our study require teacher preparation programs to extend their reach into the classrooms in which teachers develop their practice over the first two or three years of their careers. Placing new teachers in school settings more supportive of best practices would make a huge difference to new teacher quality as would dialogue between school districts and teacher preparation programs

leading to shared understandings of the best practices required to succeed in authentic school contexts.

Both preparation programs and urban school districts could use the insights we offer to help address the need for early career teachers to experience some sense of efficacy, which could reduce the large number of teachers leaving the profession after only a few years in the classroom. By understanding in greater detail the challenges teachers face as they transition from students to classroom professionals and their need for targeted classroom support and mentoring, universities and school districts could collaborate to provide the type of support new teachers in our study clearly crave.

Future research should focus on a more in-depth look at first year teachers, as well as the factors that influence and support or hinder them such as induction programs, formal and informal mentoring, and administration. Specifically, this study suggests that early-career teachers may benefit from prolonged contact and support from the institutions from which they earned their certification. Future research should explore this support relationship, how it might best be structured, and how it might influence not only early career teachers' performance and their students' performance, but their perceptions of their first years of teaching in urban areas and their teacher identity development.

This study aimed to investigate the impact of teacher preparation programs on teachers' experience and performance in urban schools, specifically the School District of Philadelphia. While we did not find many significant differences by program, interesting and important findings emerged from both the quantitative and qualitative data. This work has important implications for teacher practice, teacher education, education policy, and research. Teachers, at least those who find work in high needs schools, do not enter the profession fully prepared to

succeed. Like other professionals, they need ongoing education and professional development in order to learn from experience and adapt to the specific circumstances of their school settings. They need to learn lessons that will endure, theory and research they can immediately apply, and help adapting their learning to new conditions. This research highlights the need for a continuum of teacher learning that extends throughout pre-service and into the early years of teaching (Feiman-Nemser, 2001). Teacher educators need to identify those skills and competencies best taught before teachers take on responsibility for their own classrooms and those that teachers can only learn or apply once they transition into their professional roles. Programs designed around a period of internship or teacher residency could help to address these issues, but a shortage of well-trained mentors in districts like Philadelphia makes that model difficult to implement. The need for ongoing supports for first year teachers and teachers throughout their careers, participation in a supportive teacher community, and access to resources all stand out in our findings, indicating that teacher learning is not over when students graduate and become certified. Successful teachers in urban contexts take time to develop; instead of drawing a line between preparation and induction, institutions of higher education and school districts need to collaborate on designing a comprehensive and extended process of teacher development, especially for the school settings in which students need high quality teachers the most.

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