Examining the relationships among undergraduate teacher candidates' experiences, perceptions, and beliefs about teaching for social justice

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BOSTON COLLEGE
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Department of
Educational Research, Measurement, and Evaluation

EXAMINING THE RELATIONSHIPS AMONG UNDERGRADUATE TEACHER CANDIDATES’ EXPERIENCES, PERCEPTIONS AND BELIEFS ABOUT TEACHING FOR SOCIAL JUSTICE

Dissertation
by
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Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy

May 2011
Examining the relationships among undergraduate teacher candidates’ experiences, perceptions, and beliefs about teaching for social justice

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Teacher preparation programs face an urgent call to prepare high-quality and “highly qualified” teachers who teach all students in an increasingly culturally, racially, ethnically, and linguistically diverse student population, and who work toward closing the achievement gap that separates students along these demographic lines. In response, and as part of the current accountability context, there has been greater focus on outcomes in teacher education. Along different lines, also in response to these challenges, there has been an increase in social justice-oriented teacher preparation programs. This dissertation operates within both of these contexts. Specifically, this dissertation examines one of the many outcomes of teacher education for social justice: teacher candidates’ changing beliefs about teaching for social justice and the factors that may or may not be related to their change.

Using primarily Rasch rating scale and multiple regression analyses, this dissertation examines longitudinal survey data from two cohorts of undergraduate teacher candidates (N=134) who completed the same social justice-oriented teacher education program. By investigating two cohorts of teacher candidates at the time of entry into the
teacher education program and again when they graduated four years later, this study investigated individuals in the aggregate, variability within and across cohorts, and change across time. In addition, this research sought to untangle and identify whether reported experiences and perceptions before and during formal teacher education are related to beliefs about and commitment to teaching for social justice.

Findings suggest that from the time of entry to graduation, candidates’ beliefs about teaching for social justice were significantly more aligned with the concepts and principles endorsed by the teacher preparation program. Additionally, at particular points in time and across time, there were identifiable perceptions and experiences related to their beliefs about teaching for social justice. In particular, the location of the student teaching experience and candidates’ perceptions of their teacher education faculty were significant predictors of their beliefs about teaching for social justice.
ACKNOWLEDGEMENTS

To my dissertation committee, Dr. Larry Ludlow, Dr. Joseph Pedulla, and Dr. Marilyn Cochran-Smith, I am grateful for your support, critical feedback and encouragement throughout my graduate studies and the dissertation process. Thank you for many opportunities to learn and grow in your courses, as a TA, and on the TNE and FoRT research teams. Dr. Larry Ludlow, thank you for your leadership and guidance as an advisor. Dr. Joseph Pedulla, thank you for your patience, support, and close read of multiple drafts of my dissertation. Dr. Marilyn Cochran-Smith, thank you for encouraging me to deepen my understanding of teacher education and teaching for social justice.

Thank you to my parents. I am grateful for your love, support, and everything that you have done. To my sisters, Anna and Natalie, thank you for your laughter and willingness to listen. Thank you also to my wonderful extended family, the Mitescus and Reagans, for your kindness, love and encouragement.

Thank you to many friends in the Boston College community. Thank you, Dr. Sarah Enterline, for your role as my pseudo-graduate-student-mentor-and-Cheesecake-lunch-partner. You have always been there to answer any and every question from statistics to pop culture. Thank you also to Dr. Randall Lahann for collaborating on TFA PNL and for reading sections of this dissertation. You are a great colleague and friend, and I hope that we have an opportunity to write together again. I am also grateful for the support from fellow graduate students in the TNE and FoRT research teams, as well as
friends from coursework, study groups and other scholarly endeavors. In particular, thank you Dr. Cindy Jong, Dr. Yves Salomon Fernandez, Dr. Kara Smith, Dr. Aubrey Scheopner, Dr. Kara Mitchell, Swati Mehta, and Raquel Magidin de Kramer. You each contributed to this dissertation.

Finally, thank you, Dan Reagan. I will never be able to express my gratitude for your infinite love, patience, insight, and good humor. To quote the Beach Boys, “God only knows…”
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CHAPTER ONE: INTRODUCTION

Teacher preparation programs face an urgent call to prepare high-quality and “highly qualified” teachers who teach all students in an increasingly culturally, racially, ethnically, and linguistically diverse student population, and who work toward closing the achievement gap that separates students along these demographic lines. In response, and as part of the current accountability context, there has been greater focus on outcomes in research on teacher education (Cochran-Smith & Zeichner, 2005). Along different lines, also in response to these challenges, there has been an increase in social justice-oriented teacher preparation programs (Cochran-Smith, 2008, 2010; McDonald & Zeichner, 2009; Shakman, 2009; Zeichner, 2009). This dissertation operates within both of these contexts. Specifically, this dissertation examines one of the many outcomes of teacher education for social justice: teacher candidates’ changing beliefs about teaching for social justice and the factors that may or may not be related to their change.

In this introductory chapter, I expand on the challenges facing teachers and teacher education and the divergent responses from policy makers and teacher educators. I elaborate on teacher education for social justice, discuss the many outcomes of this movement, and provide a rationale for assessing teacher candidates’ beliefs about teaching for social justice. In addition, I present the problem, perspective, significance, research questions, and operationalization of key terms in this study. I conclude this chapter with an overview of the dissertation and its key findings.
The demographic divide and achievement gap

The “demographic divide” (Banks, Cochran-Smith, Moll, et al., 2005; Gay, 2000), describes one of the many interrelated challenges facing policy makers and teacher education programs. These challenges arise as a result of demographic shifts in student populations over the past several decades, contrasted with the constant demographic characteristics of pre-service and practicing teachers. In addition, policy makers and teacher educators continue to face a persistent achievement gap that marks resource and outcome disparities among students of different socio-economic, racial/ethnic, cultural, and linguistic backgrounds. Together, these challenges call for immediate action from a variety of educational stakeholders.

One aspect of these challenges is the ongoing racial, ethnic, socioeconomic, and linguistic shift in the K-12 public student population in the United States. According to the National Center for Education Statistics (NCES) (2009), between 1996 and 2006, the United States public school population shifted from approximately 64 percent White students and 36 percent students of color, to 57 percent White students and 43 percent students of color. In addition, The New York Times (2009) recently reported that students who are English language learners are “among the nation’s fastest-growing group of students” (The New York Times, 2009). Citing NCES and other data, The New York Times reported that during that same 10-year period, the growth rate of English language learners in public schools was approximately 60 percent, compared to an overall student population growth rate of less than 10 percent. These trends are expected to continue
The demographic shifts in student populations are contrasted with a teaching workforce that remains predominantly female, White, and middle class (Hollins & Torres Guzman, 2005; Villegas & Lucas, 2002; Zumwalt & Craig, 2008). In a “first look” at the 2007-2008 School and Staffing Survey (SASS) data, Coopersmith (2009) found that approximately 76 percent of all public school teachers were female, and 83 percent of public school teachers were non-Hispanic White, while only 7 percent were non-Hispanic Black, and 7 percent were Hispanic. These numbers differed slightly for urban schools, where approximately 71 percent of public school teachers were White.

In addition to the demographic divide, there is also an expanding cultural and experiential divide between students and teachers (Gay, 2000; McDonald, 2003; Milner, 2008). Although not necessarily problematic, this cultural mismatch can affect teaching and learning. Following Gay (2000), Richard Milner (2008) notes, this is “because White teachers and students of color, in some ways, possess different racialized and cultural experiences and repertoires of knowledge and knowing both inside and outside the classroom, racial and cultural incongruence may serve as a roadblock for academic and social success in the classroom” (p. 336). Teachers may not feel adequately prepared to meet the needs of all students or to operate in cultural communities where students and parents live (Lucas & Grinberg, 2008). Moreover, teachers may hold deficit views about the cultural, linguistic, and experiential differences between themselves and their students. This may result in lowered expectations and limited learning opportunities, particularly for students of color, lower-income students, and students who are English
language learners (Hollins & Torres Guzman, 2005; Sleeter, 2009a).

Finally, the achievement gap, which according to Gloria Ladson-Billings (2008) “has been on the lips of almost every policy maker, education researcher, education leader, and education policy maker in the nation” (p. 235), marks the academic disparities between White, middle-class, English-fluent students, and their peers who are students of color, lower income, and/or English language learners. Specifically, these disparities are operationalized in the gap in student achievement measured by standardized assessment results and high school graduation rates. For example, on the 2007 National Assessment for Educational Progress (NAEP), in reading and mathematics, although average scores were higher than previous NAEP administrations for all subgroups, the gap in student achievement remained consistent across the nation; White students scored, on average, significantly higher than Black students (Vanneman, Hamilton, Baldwin, Anderson, and Rahman, 2009). Furthermore, in a compendium report based on 2007 high school dropout data from NCES and the Institute for Education Sciences, researchers found that non-White Hispanic students were significantly more likely to drop out of high school than White students (Cataldi, Laird & Kewal Ramani, 2009). In addition, “in 2007, the event dropout rate of students living in low-income families was about 10 times greater than the rate of their peers from high-income families”2 (Cataldi, et al., 2009, p. 4).

Some scholars argue that the achievement gap is a product of a “resource” and

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1 The event dropout rate is calculated as the proportion of youths age 15 to 24 who drop out of grades 10-12 (National Center for Education Statistics, 2010)
2 Vanneman, Hamilton, Baldwin Anderson, and Rahman (2009) note, “‘Low income’ is defined here as the lowest 20 percent of all family incomes, while ‘high income’ refers to the top 20 percent of all family incomes. In 2007, low-income families included those with $18,390 or less in family income, while high-income families included those with $85,500 or more in family income” (p. 4).
“opportunity” gap between lower-income students of color and White, middle class students, as reflected in per-pupil funding, school resources, and highly prepared and experienced teachers, among other things (e.g., Ladson-Billings, 2006, 2008; Zeichner, 2003, 2009). Some factors were recently noted in a policy report from the Educational Testing Service (ETS) entitled, “ Parsing the Achievement Gap II,” in which Barton and Coley (2009) identified 16 home, school, and environmental factors significantly correlated with socio-economic and racial/ethnic disparities in student achievement. For example, they found that students of color and low-income students are less likely to be taught by certified teachers and more likely to be taught by teachers outside their subject-area preparation.

A divergent response to pressing challenges

Policy makers, scholars, and teacher educators have worked to address these challenges in different ways. On one hand, policy makers have sought to close the achievement gap through federal initiatives that focus on accountability, efficiency and outcomes-based research. On the other hand, many teacher education programs have sought to address these converging challenges with an increased focus on preparing teachers to teach for social justice. Generally speaking, these approaches are based on divergent views of the goals of education and assumptions underlying teaching and learning. On the one hand, many policy makers and politicians believe that public education should be objective, neutral, and apolitical. On the other hand proponents of

3 Other factors include rigor of the curriculum, teacher experience, teacher absence and turnover, class size, technology in the classroom, fear and safety at school, parent participation, frequent school changing, low birth weight, environmental damage, hunger and nutrition, talking and reading to infants and young children, television watching, and parent-pupil ratio (Barton and Coley, 2009).
teaching and teacher education for social justice assume that teaching and learning are inherently political, ethical, and moral activities (Cochran-Smith, Barnatt, Lahann, Shakman & Terrell, 2009). This dissertation operates within both of these contexts.

Policies such as the reauthorization of the Elementary and Secondary Education Act (ESEA) (2001) (popularly known as the “No Child Left Behind Act”) have focused on high standards and accountability as mechanisms for closing the achievement gap in an attempt to “leave no child behind.” As former President George W. Bush noted in signing the No Child Left Behind (NCLB) Act, the reform initiatives “express my deep belief in our public schools and their mission to build the mind and character of every child, from every background, in every part of America” (U.S. Department of Education, 2002). The market-based, neoliberal reform efforts outlined in NCLB operate according to the assumption that teaching and learning are objective, apolitical, and value-neutral activities (Apple, 2006; Cuban, 2004). Underlying these initiatives is the belief that the goals of public education are to develop productive workers to maintain a strong economy. Furthermore, public education can be improved through the mechanisms of accountability and efficiency. In the current Obama administration, it appears likely that federal policy initiatives such as the Race to the Top and the reauthorization of ESEA will continue to promote these efforts (U.S. Department of Education, 2010).

Many of the initiatives in NCLB focus on raising student achievement outcomes as measured by standardized assessments. Recognizing that teachers are a key factor in student learning, policy makers have sought “scientifically-based” research that links teachers’ knowledge, beliefs, and classroom practices to standardized assessment scores,
in search of “what works” in raising student achievement (Cochran-Smith & Zeichner, 2005). Along these lines, there has been a greater focus on outcomes in teacher preparation programs, particularly in terms of the quality of graduates that can be linked to students’ standardized assessments.

Yet, some scholars argue that, while important, the evidence recommended in this outcomes-based movement is narrow in scope, resulting in simplistic interpretations of the processes of teaching and learning. In addition, the limited “scientifically-based” view of rigorous research ignores the complexities of learning to teach, teaching, and learning (Cochran-Smith, 2006; Darling-Hammond, 2004; Earley, 2004; Sleeter, 2009a). Furthermore, as Cochran-Smith, Reagan, Shakman, and the BC Evidence Team (2009) note,

Other criticisms cite the lack of attention to other outcomes such as preparing teachers for diverse populations, teaching students to participate in a democratic society, ensuring equitable learning opportunities for all students, and working to make schools more caring and just (p.237).

Accordingly, some argue that broader research efforts and multiple forms of evidence have the potential to more accurately reflect the many processes and outcomes of teacher education.

**Teacher education for social justice**

In contrast to recent federal reform efforts and in response to the challenges of the demographic divide and achievement gap, over the past decade there have also been an increasing number of social justice-oriented teacher education programs (Cochran-Smith,
Broadly speaking, the goals of teaching and teacher education for social justice are to prepare teachers to enrich all students’ learning and enhance their life chances by challenging school and societal inequities (e.g., Adams, Bell, & Griffin, 1997; Ayers, Hunt & Quinn, 1998; Ayers, Quinn, & Stovall, 2009; Cochran-Smith, 1999, 2004, 2008, 2010; Darling-Hammond, French & Garcia-Lopez, 2002; Michelli & Keiser, 2005; Oakes & Lipton, 1999; Villegas & Lucas, 2002; Zeichner 2003, 2006, 2009). In addition, teaching and teacher education for social justice assume a social, political, moral, and multi-faceted view of teaching, learning, and teacher education.

However, described as “education’s most recent catchphrase” (North, 2006, 2008), “social justice” has been loosely applied to one or more of a patchwork of educational ideas and practices (Grant & Agosto, 2008; Cochran-Smith, 2008, 2010), and builds on an overlapping set of distinct theories and approaches, among them, multicultural education, culturally relevant pedagogy, critical pedagogy, democratic education, and anti-racist education (Clayton, Howell, Kapustka & Thomas, 2007; Cochran-Smith, 2008, 2010; Grant & Agosto, 2008; McDonald & Zeichner, 2009; Villegas, 2007; North, 2006, 2008; Shakman, 2009; Wiedeman, 2002).

Due in part to the ambiguity surrounding the phrase social justice (Cochran-Smith, Barnatt, Lahann, Shakman, & Terrell, 2009; McDonald & Zeichner, 2009), critics have assailed teaching and teacher education for social justice on a number of fronts. Some proponents assert that the teaching and teacher education for social justice agenda
is fragmented, under-theorized, and lacks conceptual clarity (Grant & Agosto, 2008; McDonald & Zeichner, 2009; North, 2006, 2008). Opponents claim that teaching for social justice is not focused on providing students with the skills and knowledge they need to pass standardized assessments, but rather on building self-esteem (MacDonald, 1998; Will, 2006).

Furthermore, some assert that teaching and teacher education for social justice are an overtly political indoctrination of liberal ideology (Crowe, 2008; Leming, Ellington & Porter-Magee, 2003; Stern, 2008). For example, during the 2008 U.S. presidential election, teaching for social justice was reintroduced into the national spotlight due to its support from former ‘terrorist’ leader of the Weather Underground, ‘friend’ of then-presidential candidate Barack Obama, and current education professor, William Ayers. In a *Wall Street Journal* opinion article entitled “Ayers is No Educational Reformer,” Sol Stern, senior fellow at the Manhattan Institute, called teaching for social justice a “radical” practice and, due to its political nature, described Ayers as a “school destroyer” and his social justice pedagogy as “political…indoctrination,” which involves an “assault from the multiculturalists and their race- and gender-centered pedagogy [on] America’s ideal of public schooling” (Stern, 2008).

However, some proponents argue that student learning is paramount to teaching for social justice, but that learning must be defined more broadly than simply passing high-stakes standardized assessments (Cochran-Smith, Shakman, Jong, Terrell, Barnatt, and McQuillan, 2009; Grossman, McDonald, Hammerness, & Ronfeldt, 2008; Ladson-
The notions of ‘learning’ and ‘knowledge’ central to teacher education for social justice are different from, and bigger than, the notions implicit in the critiques [of social justice]. From the perspective of social justice, promoting [students’] learning includes teaching much of the traditional canon, but it also includes teaching [students] to think critically about and challenge the universality of knowledge (p. 635).

Similarly, supporters contend that, although inherently ideological, teacher education and teaching for social justice are not doctrinaire. Rather, teaching and teacher education for social justice promote critical thought and awareness (Applebaum, 2009), enabling students to participate as active citizens in a democratic society (Michelli & Keiser, 2005; Sleeter, 2009).

To address these critiques, proponents of teaching and teacher education for social justice call for further conceptual clarification of the political and philosophical foundations of social justice (Grant & Agosto, 2008; McDonald & Zeichner, 2009; North, 2006, 2008; Zeichner, 2009). In addition, some propose comprehensive, rigorous, and methodologically diverse research that analyzes the many processes and outcomes of teacher education for social justice (e.g., Cochran-Smith, 2008, 2009; Cochran-Smith, Reagan, et al., 2009; Grant & Agosto, 2008; Sleeter, 2009; Villegas, 2007; Zeichner, 2006, 2009). Within this context, supporters of teaching and teacher education for social
justice recommend multiple designs, methods, and studies to frame teaching for social
justice as a legitimate outcome of teacher education (e.g., Grant & Agosto, 2008;
Villegas, 2007; Zeichner, 2006).

Constructing and measuring teaching for social justice as an outcome of teacher
education is one way in which teacher education programs can work proactively within
and against the current accountability movement. Framing teaching for social justice as
an outcome of teacher education interrupts the assumptions that the only important
outcomes of teacher education are student standardized assessment scores (Cochran-
Smith, Reagan, et al., 2009). By providing evidence of the complex relationships among
a variety of factors that ultimately affect student learning, teacher education programs can
work within the current accountability context, while expanding and assessing the many
outcomes of teacher education.

The outcomes of teacher education for social justice

The outcomes of teacher education for social justice include broad and
multidimensional indicators of student learning, such as critical thinking, and
empowering students to become active citizens in a democratic society (Applebaum,
2009; Cochran-Smith, et al., 2009; Michelli & Keiser, 2005; Sleeter, 2009). In addition,
these outcomes also include, but are not limited to, teaching practices that involve
teachers’ methods, skills, and their beliefs about and commitment to teaching for social
justice (Cochran-Smith, 2008, 2010; Cochran-Smith, Reagan, et al., 2009; Grant &
Agosto, 2008; McDonald, 2005; Villegas, 2007).
In particular, in this study, I focus on teacher candidates’ beliefs, which play a vital role in learning to teach and teaching for social justice. Specifically, Villegas (2007) notes, “[T]eachers must believe that all students are capable learners who bring to school a wealth of knowledge and experiences on which to build instruction” (p. 375). Furthermore, teacher education for social justice seeks to disrupt the many ingrained beliefs of teacher candidates, such as candidates’ deficit views of students’ cultural, racial, linguistic, and experiential backgrounds, and the influence of larger school and societal structures in perpetuating inequity.

A large body of research recognizes the importance of beliefs in learning to teach and teaching (e.g., Borko & Putnam, 1996; Feiman-Nemser, 1983; Pajares, 1992; Richardson, 1996). Many scholars argue that beliefs are “the best indicators of decisions individuals make throughout their lives” (Pajares, 1992, p. 307), influencing how teachers make sense of what is going on, what they learn, and how they teach (Cochran-Smith & Fries, 2008; McQuillan, D’Souza, Scheopner, Miller, Gleeson, Mitchell, Enterline & Cochran-Smith, 2009; Villegas, 2007).

However, research also suggests that beliefs about teaching are well established by the time teacher candidates begin formal teacher preparation (e.g., Lortie, 1975). While some research suggests that teacher preparation is a weak intervention in developing and changing teacher candidates’ already ingrained beliefs, Wideen, Mayer-Smith & Moon (1998) question this finding, arguing “[T]he fixed nature of prospective teachers’ beliefs should remain an open question rather than an accepted assumption until
the impact of the more robust programs of teacher education has been more fully analyzed” (p. 144).

Given these challenges, it is important for teacher education programs for social justice to critically examine the nature of teacher candidates’ beliefs before, during, and after the teacher preparation program. Specifically, teacher education programs can assess any change in beliefs that may arise when a teacher candidate is enrolled in the teacher preparation program. Furthermore, Cochran-Smith and Fries (2008) note the rationale and assumptions behind examining teacher candidates’ beliefs as an outcome of teacher education,

…teachers’ learning (e.g. enhanced subject matter knowledge, change in beliefs and attitudes about diverse populations, increased skill) is a justifiable outcome of teacher preparation because of its impact on instructional opportunities. This approach is based on the premise that teachers’ knowledge and beliefs are filters through which teachers’ practices and decisions are made and through which they decide how to apply the various skills they have learned. The assumption is that knowledge and beliefs always mediate practice and the application of skills and thus knowledge and beliefs always influence pupils’ learning opportunities, achievement and other educational outcomes (p. 1086).

Accordingly, driven by these underlying assumptions, it is critical and defensible to examine beliefs about teaching for social justice as one outcome of teacher education for

As detailed in Chapter 2, there is a growing body of research that examines teacher candidate beliefs in social justice-oriented courses and teacher education programs. However this research has been criticized for using primarily qualitative methods and methodologies (Zeichner, 2006), and including few psychometrically sound instruments (Brown, 2004). Furthermore, the growing research base consists of many short-term interventions, such as courses or field experiences within larger teacher education programs. In view of that, further rigorous, longitudinal studies are needed to examine teacher candidate beliefs about teaching for social justice from the time they enter formal teacher preparation to the time they graduate.

**Problem**

This dissertation builds on the work of the Boston College Evidence Team (ET), a research group initially developed as part of the Teachers for a New Era initiative (See Ch. 3 for further description of the TNE project). Since 2006, I have been a member of the ET, working primarily as a research assistant on one of the ET’s subgroups, the survey team. In this role, I have participated in survey development, data collection, and analysis across multiple surveys and administrations.

This study focuses specifically on beliefs about teaching for social justice, one outcome of teacher education for social justice, as measured by the Learning to Teach for Social Justice-Beliefs (LTSJ-B) scale (Ludlow, Enterline & Cochran-Smith, 2008), as
well as reported experiences and perceptions that may be related to and influence beliefs about teaching for social justice, as measured by survey data collected at two points in time. The problem that this dissertation addresses is whether experiences and perceptions are related to undergraduate teacher candidates’ beliefs about teaching for social justice in a school of education with an explicit goal of preparing teachers to teach for social justice. Specifically, this research examines whether undergraduate teacher candidates’ beliefs about teaching for social justice change from the time of entry into the teacher education program (freshman year) to the time of graduation (senior year)\(^4\). Additionally, this study investigates whether and how perceptions of good teaching upon entering the program, reported experiences prior to and during the teacher education program, perceptions of preparedness, and satisfaction with the teacher education program, are related to their beliefs about teaching for social justice at particular points in time, as well as any changes in beliefs over time.

Using the Rasch rating scale and multiple regression analyses, this research examines longitudinal survey data from two cohorts of undergraduate teacher candidates (N=134) who completed the same social justice-oriented teacher education program. By investigating two cohorts of teacher candidates at the time of entry into the teacher education program and again when they graduated four years later, this study investigates individuals in the aggregate, variability within and across cohorts, and change across time. Moreover, as these individuals progressed through the teacher education program as

\(^4\) The focus on the preservice period is not to suggest that teacher learning finishes or occurs only during formal teacher preparation. Rather, this dissertation focuses on learning and experiences that occur during this period.
undergraduates, they enrolled in a variety of courses, chose different teacher education majors, and encountered multiple experiences that may further influence their views on teaching for social justice. However, despite these differences, these individuals shared common experiences, such as attending the same undergraduate institution and completing the same social justice-oriented teacher education program. This research begins to untangle and identify whether these experiences, perceptions, and beliefs relate to their beliefs about and commitment to teaching for social justice.

In addition, this research closely examines which individuals change their beliefs most, which individuals change a moderate amount, and which individuals change little -- if at all -- toward a stronger commitment to teaching for social justice over their undergraduate years. Different reported experiences and perceptions were related in different ways to their beliefs on teaching for social justice.

In this dissertation, I argue that teaching for social justice is a complex, legitimate, and measurable outcome of teacher education that requires research from multiple, methodologically diverse approaches. Furthermore, I contend that teacher candidates’ and graduates’ beliefs about teaching for social justice are legitimate outcomes of teacher education for social justice. This research is framed by theories of justice in (teacher) education, as well as the quantitative criticalist perspective (Stage, 2007), which provides a methodology for quantitatively examining teacher candidate beliefs about teaching for social justice. This theoretical framework is further explored in Chapter 2.
Purpose and significance of the research

This research is significant for a number of reasons. First, although teaching for social justice is a common goal across teacher education programs, it is critiqued from within and outside of teacher education for a number of reasons. This suggests that more research is needed to construct teaching for social justice as a legitimate outcome of teacher education, as well as to untangle the complex web of factors that may or may not influence learning of teaching for social justice, generally, and beliefs about teaching for social justice, in particular.

Furthermore, the research on teaching and teacher education for social justice is replete with in-depth studies that examine discrete short-term interventions. Few studies are longitudinal in nature or examine entire cohorts within a teacher education program. In addition, I could not locate any longitudinal studies that examine an intact cohort of undergraduate teacher candidates at the beginning and end of their formal teacher preparation. The research is unique in that it seeks to examine undergraduate teacher candidates’ reported experiences, perceptions, and beliefs about teaching for social justice at the time of entrance into the teacher education program and again at the time of graduation.

Finally, this research uses psychometrically sound instruments and sophisticated statistical techniques to examine the undergraduate experience through a teacher preparation program with an explicit mission to prepare teachers to teach for social
justice. This study contributes to a growing body of rigorous research that frames teaching for social justice as an outcome of teacher preparation.

**Research questions**

This dissertation addresses the following overarching research question: *What is the relationship among undergraduate teacher candidates’ experiences, perceptions, and their subsequent beliefs about teaching for social justice?* In this dissertation, I assume that teacher candidates’ experiences, perceptions and beliefs prior to entering the teacher education program, experiences in the program, perceptions of preparedness at graduation, and satisfaction with the program—as reported in comprehensive survey data—are all relevant to their beliefs about teaching for social justice. I hypothesized that there was a statistically significant relationship among teacher candidates’ reported experiences, perceptions, and beliefs about teaching for social justice. In other words, I assumed that teacher candidates’ experiences and perceptions would be significant predictors of their scores on the LTSJ-B scale. To clarify and elaborate on this question, this study included three sub-questions:

1) *At the time of entry into the program, what are teacher candidates’ beliefs about teaching for social justice? What prior experiences and perceptions about teaching are related to their beliefs at entry about teaching for social justice?*

2) *At the time of graduation, what are teacher candidates’ beliefs about teaching for social justice? What aspects of their reported experiences in the teacher*
education program, perceptions of preparedness, and satisfaction with the program are related to candidates’ beliefs about social justice at graduation?

3) How do teacher candidates’ beliefs about teaching for social justice change and develop from the time of entry into the program to the time of graduation? What experiences and perceptions about teaching and preparedness are related to a change in beliefs about teaching for social justice?

Operationalization of key terms

In this dissertation, I take an in-depth look at teacher candidates’ responses to the Boston College teacher education entry survey, taken when they begin the teacher preparation program, and the exit survey, taken when the same teacher candidates graduate from the teacher preparation program at the conclusion of their senior year. The experiences and perceptions reported in the surveys are operationalized in the following ways:

Beliefs about teaching for social justice: Key ideas reflected in beliefs about teaching for social justice include: holding high expectations for all students and providing all students with rich opportunities to learn; exploring and critically examining assumptions and long-held beliefs about race, class, gender, disability, and culture; viewing students’ and their families’ cultural, linguistic, and experiential backgrounds as assets; promoting questioning and divergent modes of thinking; challenging commonly held notions of a meritocratic society; viewing teaching as an inherently political activity; and challenging school and societal structures that perpetuate inequity.
Experiences prior to entering the program: These experiences include work with children and adolescents in a variety of settings including tutoring, camp counseling, community service, parenting, babysitting, daycare center, teaching, sibling care, and religious groups.

Perceptions of good teaching: These perceptions include teachers who are liked and respected; who teach such that all students learn; who help students gain a sense of self-confidence and self-worth; who maintain a quiet and orderly environment; who promote an environment where students understand and respect one another; who help students develop competence as problem solvers and critical thinkers; who promote academic, social, and emotional development and achievement; who prepare students to participate in a civic society; and who motivate students to become lifelong learners.

Perceptions of preparation (Preparation for Classroom teaching scale, Teaching Diverse Learners scale): The perceptions include: reflecting on and evaluating theories of teaching; handling uncertainty by positing questions and seeking the best solution to problems based on evidence; designing and executing classroom research; using inquiry methods to create an effective learning environment; knowing ways to diversify lessons to meet the needs of individual students who have disabilities; seeking and using feedback to improve instruction; reflecting on and improving teaching performance; using classroom research and inquiry strategies; and making decisions informed by evidence.
Satisfaction with the program (BC Evaluation scale, Faculty Evaluation scale, Practicum Evaluation scale): The perceptions include their satisfaction with teacher education courses, practicum requirements, and faculty during the undergraduate teacher preparation experience.

Reported experiences while in the program: These experiences include choice of major (early childhood, elementary, or secondary education) and the location and context of their practicum experiences.

Dissertation overview

In this chapter, I have expanded on the challenges facing policy makers and teacher educators in the current accountability context. I have outlined the problem and rationale for examining teacher candidate beliefs about social justice as an outcome of teacher education. Furthermore, I have presented the questions, significance, overview of the study, and the key terms.

In Chapter Two, I review the literature on teacher education for social justice, beginning with an overview of the conceptual literature on social justice. I present the conflicting and competing theories of (teacher) education for social justice and attempt to find a common ground in the theoretical framework of this dissertation, specifically Cochran-Smith’s (2008, 2010) theory of teacher education for social justice. In addition, I discuss the methodology of research on and for social justice, and present the quantitative criticalist perspective that guides this work. Next, I review the empirical literature on teacher education for social justice published between 1999 and 2009, with a focus on
teacher candidate experiences during and after formal teacher preparation, and identify strengths, holes, and weaknesses in the methods and designs of empirical literature. Finally, I present Item Response Theory and the Rasch Model as a means for analyzing teacher candidates’ beliefs about teaching for social justice, and I provide examples of empirical studies that have employed the Rasch model to measure attitudes and beliefs.

In Chapter Three, I present the context of the study, sample under investigation, instrumentation, and research design. As I discuss in Chapter 3, this survey study uses a longitudinal design to examine Boston College undergraduate teacher candidates’ beliefs about teaching for social justice as well as their experiences and perceptions that may be related to their beliefs. Data for this study include scales and items from the entry survey completed by participants in their freshman year of college, at the time of entry into the teacher education program, and from the exit survey, completed by participants at the end of their senior year. Finally, I present the analyses used to examine candidates’ beliefs about teaching for social justice and the experience and perceptions related to their beliefs.

In Chapters Four through Six, I address each of the sub-research questions. Findings are presented at the cohort level, as well as with both cohorts combined. I also present two candidates, Hillary and Michelle, as examples of the range in candidate beliefs at particular points in time and across time.

Specifically, in Chapter Four, I explore candidates’ beliefs about teaching for social justice at the time of entry into the program. On average, candidates entered
Boston College with some familiarity about teaching for social justice, yet they were uncertain about some concepts and tended to reject the most controversial concepts of teaching for social justice. In addition, at the cohort level, and across cohorts, there were identifiable perceptions and experiences related to their beliefs about teaching for social justice. In particular, candidates’ goals for teacher preparation—or what they wanted to learn while they were in the teacher preparation program—significantly predicted their beliefs about teaching for social justice. Furthermore, at the cohort-level and across cohorts different experiences and perceptions were related to their beliefs about teaching for social justice at the time of entry into the program.

In Chapter Five, I explore candidates’ beliefs about teaching for social justice at the time of graduation from the teacher education program. At the end of their senior year, on average, the candidates in this study tended to endorse most of the concepts and principles outlined by the LTSJ-B scale. However, on average, candidates were uncertain about the most controversial concepts of teaching for social justice. In addition, at the cohort-level and across cohorts, the location of candidates’ student teaching experience, as well as candidates’ perceptions of their teacher education faculty were significantly related to their beliefs about teaching for social justice. For one of the cohorts, as well as when both cohorts were combined, candidates’ race/ethnicity was a significant predictor of their beliefs about teaching for social justice.

In Chapter Six, I examine the change in candidates’ beliefs from the time of entry into to the time of graduation from the teacher education program. By the end of their
senior year, candidates’ beliefs about teaching for social justice were statistically significantly more aligned with the concepts and principles of teaching for social justice than they were at the beginning of their freshman year. Furthermore, while candidates’ beliefs at the time of entry into the program were the strongest predictors of their beliefs at the time of graduation, several experiences during and perceptions at the end of the program were significantly related to their beliefs about teaching for social justice, above and beyond their initial beliefs. These experiences and perceptions include their student teaching experience and candidates’ perceptions of their teacher education faculty.

Finally, in Chapter Seven, I conclude with a review of the major arguments of the dissertation, and I discuss implications for research, policy, and practice. Specifically, I argue that although teaching and teacher education for social justice are complex and tension-filled constructs, it is possible to measure candidates’ beliefs about teaching for social justice as an outcome of teacher education. Furthermore, this study provides insight, from a largely quantitative perspective, of the experiences in the teacher education program that relate to candidates’ beliefs about teaching for social justice. When examined in conjunction with other studies on teacher education for social justice, this study has the potential to contribute to a more complete and nuanced understanding of the process of learning to teach for social justice.
CHAPTER TWO: REVIEW OF RELATED LITERATURE

Several bodies of conceptual and empirical work provide insight and guidance for an investigation of undergraduate teacher candidates’ beliefs in a social justice-oriented teacher education program. This review of the literature is divided into several sections. First, I draw on theories of justice in (teacher) education, and I examine methodologies of research on and for social justice in education with a particular focus on the quantitative criticalist perspective. Together, these theories provide a framework for using quantitative methods to investigate teacher candidates’ beliefs about social justice. Second, I review previous syntheses and empirical studies of teacher education and learning to teach for social justice, where I examine the designs and methods used to establish what is known and identify holes in the research base. Finally, I examine Item Response Theory and the Rasch model as a means to analyze beliefs about teaching for social justice.

Theories of justice in (teacher) education

Although much has been written about social justice in teacher education, scholars argue that social justice is a “contested and normative concept” (Grant & Agosto, 2008, p. 177; North, 2008; Sturman, 1997), often described in terms of fairness and equity, and constantly evolving as both a process and a goal (e.g., Bell, 1997; Shakman, 2009). In addition, until recently, there has been limited recognition in the conceptual literature of the political, historical, philosophical, and religious roots of social justice (Grant & Agosto, 2008; Cochran-Smith, 2008, 2010; North, 2006, 2008). In
response to this, Morva McDonald and Ken Zeichner (2009) recommend that supporters of teaching and teacher education for social justice “negotiate difficult political differences both within and outside of the teacher education community, and…develop and identify specific program practices that prepare teachers to teach from a social justice perspective” (p. 596). To do so, McDonald and Zeichner recommend, “(1) considering how individuals in other disciplines such as philosophy and political science or sociology have conceptualized notions of justice and (2) connecting with other social movements aimed at achieving justice” (p. 599).

Taking these considerations into account, I present theories of justice in (teacher) education that inform this study (Cochran-Smith, 2008, 2010; Grant & Agosto, 2008; McDonald, 2003, 2005; McDonald & Zeichner, 2008; North, 2006, 2008). These conceptual pieces are discussed in some detail “to locate conceptions of social justice and equity as enacted by…education within broader [theories] of justice” (McDonald, 2003, p. 32). In addition, these pieces are described to highlight contradictions and tensions and to find common ground for a theory of learning to teach and teacher education for social justice.

In critical reviews of the literature of social justice in education, North (2006, 2008) maps out major theories of justice in general, and social justice in education, more specifically. Building on the work of critical theorist Nancy Fraser (Fraser & Honneth, 2003), North presents justice in terms of the shift in emphasis on justice as “redistribution” of economic and social resources to those who have been historically
marginalized and impoverished, to justice as cultural “recognition” of groups who have otherwise been silenced and/or unrecognized. Noting the complicated relationship between the two ideas, North (2006) explains,

On the one hand, a focus on recognition can distract from the ongoing exploitation of workers and the marginalization and powerlessness of impoverished people. On the other hand, an emphasis on redistribution does not necessarily challenge the underlying social structures and ‘doxa’ (Bourdieu, 1984/2002) that sustain and perpetuate unequal power relations (p. 510-511).

In terms of education, when “redistribution of social goods such as…school funding, high-quality teachers, and multiple curricular and extracurricular options in educational institutions” do not incorporate the social and relational nature of groups, these redistributive efforts may hinder justice, particularly in terms of an absence of critique of how “dominant values and beliefs normalize and privilege” (p. 511) historically dominant groups. Similarly, when efforts of recognition, such as incorporating multicultural themes into curricula, fail to recognize “cultural and economic inequities” (p. 511, emphasis added) they, too, risk maintaining a system that perpetuates inequality.

North (2006, 2008) acknowledges the assumptions underlying Fraser’s (2003) “perspectival dualist framework” and highlights the tensions between redistribution and recognition, as well as other tensions embedded in the notions of (social) justice, such as “equality as difference” and “equality as sameness,” the “varying attention to macro level processes [in education] such as educational policymaking and social movement
organizing, and micro level processes, such as individual behaviors and daily social interactions in classrooms” (p. 508), and the struggle between knowledge and action in social justice education (North, 2008). North (2006, 2008) resists a unitary definition, noting the many competing tensions among theories of social justice in education. Ultimately, North (2008) seeks to raise questions and highlight contradictions, rather than “putting forth easy solutions” (p. 1197) on how to conceptualize social justice in education.

In her research on teacher preparation programs for social justice, McDonald (2003, 2005) draws on sociocultural theory as well as political scientist Iris Marion Young’s (1990) theory of justice to inform her work. In contrast to Fraser’s (2003) “perspectival dualist framework,” Young defines justice in terms of oppression, including individual action as well as embedded, often overlooked, structural institutions that privilege certain individuals and groups over others. McDonald acknowledges Young’s position that certain theories of justice focus on achieving an equal distribution of goods, which, at times, can be applied to group differences (e.g., Rawls, 1971). However, Young suggests that some non-material goods, such as respect and honor, cannot be conceptualized in terms of distribution, but rather in terms of social relations and processes.

Young’s (1990) theory of justice provides a framework for McDonald’s (2003, 2005) investigation of social justice in teacher education that acknowledges the incorporation of individual and institutionalized forms of oppression; recognizes justice
as more than redistribution of goods but also social relations and processes; conceives of justice in terms of individuals and groups; and attends to group differences. Applied to the context of teacher education, McDonald (2003) argues that teacher education programs should acknowledge individual oppression as well as structural/institutional oppression. In addition, teacher education must address how teacher candidates’ experiences of privilege and systemic oppression affect their views of teaching and their interactions with the students that they teach. Accordingly, both teacher candidates’ and students’ affiliations with certain social groups inform their experiences as teachers and learners. Within this theory of justice, teacher candidates - and ultimately classroom teachers - are called to acknowledge and recognize individual and group differences (rather than ignore or deny them) and view them as assets (rather than deficits) to their learning. McDonald (2003, 2005) presents a framework of “dimensions of prospective teachers’ opportunities to learn about teaching for social justice” (p. 37) in terms of individual, organizational, and institutional opportunities to learn a range of conceptual and practical tools about teaching for social justice.

Building on this, McDonald and Zeichner (2009) draw on their previous research (McDonald, 2003, 2005, 2008; Zeichner, 1993, 1999, 2003, 2006) as well as theories of multicultural education and justice in their understanding of teacher education for social justice. McDonald and Zeichner apply Young’s (1990) conceptions of justice to teacher education. They view justice as extending beyond distribution or an “equal slice of the pie” (p. 599) to recognition of group membership, or “which individuals at the table might need more pie, or a different pie entirely to be successful” (p. 600). They suggest
that, by drawing on broader theories of justice, teacher education programs might “clarify their program aims and goals” (p. 600). Furthermore, McDonald and Zeichner challenge teacher educators to grapple with the following questions regarding teacher education for social justice:

Is justice about providing equal opportunity, but not necessarily equal outcomes? Is it about recognizing how individuals’ connections to oppressed groups shape their experiences? Is it about reducing the impact of oppression? Does it require connecting to other efforts, within and outside of education, aimed at minimizing the affects of oppression? (p. 600)

To address these questions, McDonald and Zeichner (2009) offer a series of structural recommendations for teacher education for social justice. Specifically, they recommend focusing on recruitment of a culturally, racially, ethnically, linguistically, and experientially diverse faculty and student (teacher candidate) body; implementing a series of program initiatives such as coursework on social justice and multicultural education to promote teacher candidates’ socio-cultural consciousness as a central focus of the program; providing quality field experiences and opportunities for community-based or cultural-immersion experiences; collaborating with members of the community and P-12 teachers; working toward a unified vision of social justice within teacher education programs; focusing on the preparation of all teacher candidates, both those who are White and teacher candidates of color; and preparing all teachers to work with all students, including offering the conceptual and practical tools to work with students who are
English language learners (ELLs). They acknowledge that these recommendations might play out differently in the local context of individual teacher education programs. However, McDonald and Zeichner make these recommendations in the spirit of moving toward a common vision of teacher education for social justice.

Taking a somewhat different approach, Grant and Agosto (2008) examine teacher capacity and social justice from a historical perspective, tracing social justice back to the 19th century Italian Catholic priest and scholar, Luigi Taparelli d’Azeglio and English philosopher and political theorist, John Stuart Mill. Despite the long history of social justice, Grant and Agosto assert that current understandings of social justice are heavily influenced by societal changes of the past 60 years, including the Civil Rights Movement and the distributive notion of justice articulated in the work of moral and political philosopher John Rawls (1971, 2001).

Grant and Agosto (2008) problematize social justice in and out of education. For example, they note economist and political philosopher Frederich Hayek’s criticism of social justice articulated in Michael Novak’s (2000) “Defining Social Justice,” that twentieth century policy documents and treatises frequently employ “social justice” without defining it. Moreover, although social justice is articulated as a virtue, it is commonly misapplied as a “utopian goal.” While the contexts of political systems differ from the context of (teacher) education, the critiques of ambiguity and misuse may be relevant to both.
Drawing on Young (1990) and Fraser (1997), Grant and Agosto (2008) define social justice in terms of ending institutional oppression and promoting individual capacity through redistribution of material goods and recognition of cultural and social groups. In the context of teacher education, Grant and Agosto highlight seemingly different ideas and agendas related to social justice in teacher education. They offer the work of Giroux (1992), Kumashiro (2002), and Cochran-Smith (2003) as examples of those who forward movements of teacher education for social justice. Specifically, they argue that Giroux focuses on “critical teacher pedagogy” where teacher candidates learn to actively participate in “leading, learning, and reflecting upon their relationship with their practice and the social context in which the practice is situated” (Giroux, 1992, p. 99 as cited in Grant & Agosto, 2008, p. 180), and create conditions that promote critical thought about “what counts as knowledge, how knowledge is produced, and how knowledge is transformed by particular relationships between the self, others, and the larger world” (Giroux, 1992, p. 199 as cited in Grant & Agosto, p. 180). Giroux’s (1992) notion of critical teacher pedagogy is contrasted with Kumashiro’s (2002) “anti-oppressive education,” that Grant and Agosto (2008) describe as “a more global view of education” based on four approaches to education: education for the Other; education about the Other; education that is critical of privileging and Othering; and education that changes students and society. Finally, Grant and Agosto (2008) present Cochran-Smith’s (2003) argument toward a new teacher preparation for social justice. Cochran-Smith builds on multicultural education and includes teacher education that “situates knowledge about culture and racism at the forefront of the teacher education curriculum” and
challenges “the historical ideological underpinnings of traditional programs” (p. 180). Grant and Agosto discuss these approaches to present the different and competing ways in which scholars have approached issues of social justice in teacher education.

Taken together these conceptual pieces explore the tensions and contradictions inherent in teaching and teacher education for social justice. These tensions play out in ways that make teacher education for social justice problematic. They draw and build on distinct theories of justice, teaching, and teacher education. However, despite these tensions, these scholars lay a foundation for a theory of teacher education for social justice. This is not uncommon in the development of complex and multifaceted theories. For example, in describing the evolution of activity theory, Engestrom, Miettinen, and Pumamaki (2003) note that theorists “should not regard internal contradictions and debates as signs of weakness; rather they are an essential part of theory” (p. 20). In this context, a theory of social justice in teacher education is not static, nor does it need to reach consensus. Rather, McDonald and Zeichner (2009) encourage “educators engaged in such work to challenge themselves and the field to develop a range of conceptions and practices that would provide some guidance in terms of vision of teaching and learning and the practices of such a reform effort” (p. 606, emphasis added).

**Theory of teacher education for social justice**

This study acknowledges the tensions and theories noted above and draws on educational scholar Marilyn Cochran-Smith’s (2008, 2010) thoughtful synthesis of theories of justice as they apply to teacher education. Building on her own research on teaching and teacher education for social justice (e.g., Cochran-Smith, 1999, 2003, 2004,
2006), and theories of justice articulated in the work of others, including many of the theorists mentioned above (e.g., Fraser & Honneth, 2003; Gewirtz, 1998; Gewirtz & Cribb, 2002; Howe, 1997; King, 2008; North, 2006; Rawls, 1971; Reich, 2002; Young, 1990), Cochran-Smith moves toward a “theory of social justice for teacher education,” outlining interrelated theories of justice, practice, and teacher education. Cochran-Smith (2008) argues that a theory of teacher education for social justice is not simply about promoting a set of actions, but rather it is about a “coherent and intellectual approach to the preparation of teachers that acknowledges the social and political contexts in which teaching, learning, schooling and ideas about justice have been located historically and the tensions among competing goals” (p. 3).

Specifically, Cochran-Smith (2008) acknowledges the tensions inherent in pursuing teacher education and teaching for social justice and argues,

The question is how to conceptualize the relationship between the notion of distributive justice that is central to modern liberal democracies, on one hand, and on the other hand, contemporary struggles for the recognition of social groups based on culture, race, gender, religion, nationality, language, sexual orientation, and ability/disability—in short the relationship of identity and difference (p. 8).

Furthermore, because of these tensions, Cochran-Smith acknowledges the complexity of putting these larger ideas in practice in the day-to-day world of teaching.

Accordingly, Cochran-Smith’s (2008) theory of justice in teaching and teacher education, links three integrated and overlapping ideas: (1) “promoting equity of learning
opportunities and outcomes for all students” (p. 13) while simultaneously challenging assumptions, practices, and institutions in school and society that perpetuate inequities; (2) respecting all social, racial, and/or cultural groups by “working for effective use in classrooms and schools of the knowledge traditions and ways of knowing” (p. 13, emphasis original) of these groups while working against the structures and institutions in place that disrespect or oppress historically marginalized groups; and (3) acknowledging and dealing with tensions inherent in the competing and often contradictory notions of social justice while “managing these [ideas] in knowingly imperfect ways” (p. 13).

In a theory of practice, Cochran-Smith (2008) suggests that “to support justice, teaching practice must be theorized as an amalgam of: knowledge; interpretive frameworks; teaching strategies, methods, and skills; and advocacy with and for students, parents, colleagues, communities, and others involved in larger social movements” (p. 14). Cochran-Smith identifies key interpretive frames, or “the filters through which teachers make decisions, form relationships, and support learning…that are powerful mediators of practice and thus of students’ opportunities and life experiences” (p. 16) that are necessary components of teaching for social justice. These include a belief that teachers are agents of change who can affect students’ life chances and who work toward ending inequities in school and society, an understanding that students bring multiple cultural identities to classroom, and a commitment to recognizing students’ diverse cultural, ethnic, and linguistic backgrounds as assets on which to build instruction.
Finally, Cochran-Smith’s (2008, 2010) theory of teacher preparation is grounded on four key issues: who should teach, what teachers learn, how and from/with whom teachers learn, and how teacher education for social justice should be assessed. Cochran-Smith discusses structural aspects of the teacher education for social justice including: recruitment, selection, and retention of a diverse body of teachers; the curriculum and faculty guiding the preparation program; the organization, collaborators, and support for teacher candidates while in and after the program; and, finally, the outcomes of teacher education for social justice.

In terms of outcomes, Cochran-Smith (2008) argues that teacher educators should work “within the system by focusing on outcomes and owning accountability, but also [work] against the system by recasting accountability in terms of rich learning opportunities for all students, preparation for participation in a democratic society, teacher candidates’ commitments to social justice goals, and their retention in careers as social justice educators as legitimate and measurable outcomes” (p. 23-24). This theory of teacher education for social justice evolves in the larger context of research, practice, and policy. In addition, Cochran-Smith’s (2008, 2010) theory of teacher education for social justice lays the groundwork in this study for assessing beliefs about teaching for social justice as an outcome of teacher education.

How do these theories relate to research on and for social justice? Given the tensions inherent in theories of teacher education for social justice, the outcomes are multifaceted, difficult to assess, and require complex measures, multiple methods, and various forms of evidence (Cochran-Smith, Reagan, et al., 2009). In the next section, I
explore the epistemological and methodological issues of conducting research on and for social justice in education and the quantitative criticalist approach that guides this work.

**Methodology of educational research for social justice**

In the introduction to *Educational Research for Social Justice*, Morwenna Griffiths (1998) asks: “What special factors need to be taken into account by a researcher who is trying to do research for social justice? In practical terms, what sort of research techniques and methodologies are most appropriate?” (p. 3). Griffiths argues that the purpose of educational research (unlike research in other fields) is improvement of practice; it is action-oriented. However, as Griffiths acknowledges, there is great debate about what improvement looks like. Furthermore, Griffiths contends research on and for social justice in education is value-laden, ethical, and political - both personal and public. Griffiths outlines epistemological and methodological issues in conducting research on and for social justice. These include human agency, social relations, power, and ethics that can affect research in many ways.

In contrast to some scholars who assume that qualitative approaches should be used to address critical and social justice questions in research (e.g., King, 2008; Lather, 1992; Sleeter, 2009b), Griffiths (1998) does not encourage one particular research method. Rather, Griffiths argues that educational research on and for social justice “can perform a range of functions, all contributing to the improvement of education, and achieve them in a variety of methods” (p. 67). For example, in terms of quantitative methods, Griffiths notes, “looking for patterns and making judgments about their significance is a process which is affected by the values of the person doing it. The
process is itself a part of the production of knowledge. Thus, the values and politics behind the process become part of the knowledge” (p. 80).

Ultimately, Griffiths argues, “[T]he best that can be done [in research on and for social justice] is to look for knowledge from different perspectives, in the context of the social and historical situations in which it was discovered, interpreted, and constructed” (p. 82). Accordingly, Griffiths offers a set of principles that guide educational research on and for social justice. These principles, which inform the research in this dissertation, include:

1. A main reason for doing the research is to get improvement in social justice in and from education.
2. A main reason for doing the research is to get knowledge and to learn from it.
3. Improvements and knowledge are always uncertain, so researchers must be prepared to change their minds radically, and to challenge others during and after doing research.
4. Researchers need to work collaboratively with people as part of the community carrying out research.
5. Researchers need to be open to the viewpoints of all concerned with the research.
6. Researchers need to seek out and be open to the viewpoints of sociopolitical groups.
7. Reflexivity is needed about the researchers’ own sociopolitical positions and interests.

8. Reflexivity is needed about the researchers’ own understanding and values.

9. There is no hope of doing perfect research. Utopia does not exist.

10. Researchers must recognize their responsibilities related to being part of the community of educational researchers (p. 102).

Griffiths’ (1998) principles serve as broad indicators of how and why to conduct research on and for social justice. In particular, for this study, the principles explicitly articulate the purpose of this dissertation, “to get an improvement in social justice in and from education” (p. 102). In addition, in this dissertation I situate this research in terms of a broader community of inquirers and I acknowledge the limitations of the research in terms of context and time.

Although Griffiths (1998) does not advocate particular techniques or methods, she notes that these principles were developed for use with qualitative methods. In view of that, some principles, such as principle 7, “reflexivity is needed about the researchers’ own sociopolitical positions and interests” (p. 102) do not seem to align with positivist and post-positivist assumptions that traditionally guide quantitative research, such as the notion that, although worthy of consideration, researchers’ positions and interests are independent of research being conducted.
Bredo’s (2006) analysis of the major philosophies of education research begins to address some of the apparent tensions involved in conducting research on and for social justice using quantitative methods. Specifically, Bredo’s analysis provides a typology in which to situate the assumptions guiding this dissertation in a larger body of epistemological traditions and approaches. Following Godfrey-Smith’s (1996) analysis of biological functions of the mind in biology and philosophy, Bredo (2006) organizes the major epistemologies of educational research in three broad categories: externalist, internalist, and interactionist approaches to knowing. Generally speaking, externalist approaches “view the properties of the environment as the principal factors explaining the properties of mind, thought, or knowledge” (p. 9). In contrast, internalist approaches assume that “the most important determinants of thought or knowledge arise from ‘inner’ constraints of the mind or distinctions built into language or culture” (p. 4-5). Finally, interactionist or dialectical approaches assume that “internal’ and ‘external’ factors affect one another, at least indirectly” (p. 5).

Bredo traces the evolution of these philosophies of educational research and highlights commonality and difference within and among these traditions. Bredo argues that although each tradition has inherent differences, these families of approaches have moved toward each other over time. Furthermore, Bredo notes that although certain instruments and analytic methods are common to particular philosophical families, the approaches and traditions are guided by underlying assumptions, purposes, and questions of inquiry.
Bredo (2006) classifies the positivist and post-positivist approaches, those traditionally guiding research using quantitative methods, as part of the externalist tradition of educational research. Bredo suggests that post-positivism evolved as a response to critiques and shortcomings of empiricism, classical positivism, and, most directly, logical positivism. In contrast to the other externalist approaches, post-positivism assumes that facts are not independent of theory but are instead theory-laden. In addition, the post-positivist approach assumes that the purpose of inquiry is to potentially falsify facts through empirical observation, rather than verify scientific laws. Furthermore, research within this approach is assumed to be a social activity where “the norms and background assumptions adopted by those in the scientific community affect the course of science” (p. 11). Finally, post-positivism acknowledges that there is no “value-neutral” language, but rather “values not only affect the problems selected, but the way they are conceptualized” (p. 11).

The assumptions underlying post-positivism align with some of Griffiths’ (1998) principles for conducting research on and for social justice. However, as previously noted, post-positivist assumptions do not extend to all of Griffiths’ principles guiding research on and for social justice. Furthermore, whereas one purpose of conducting research according the externalist tradition is to describe phenomena, the purpose of conducting research on and for social justice is to “get knowledge and learn from it” and “to get improvement in social justice in and from education” (Griffiths, 1998, p. 102).
The assumptions guiding this dissertation are best situated within the interactionist or dialectical tradition, that takes “a more active view [where] the primary function of inquiry is to help change the world in desirable ways and not merely to describe or appreciate it. Knowing is primarily for the sake of action, and action changes what is known” (Bredo, 2006, p. 21). Within this family, Bredo introduces idealism, materialism, and critical theory. In particular, this “third family of approaches, attempts to bring external and internal considerations together into a single evolutionary account, thus including temporal considerations into knowing. External and internal considerations in knowing are viewed as phases or aspects of an evolving dialogue, which itself is part of a process of living” (p. 26-27). Ultimately, as with the other traditions, the interactionist tradition is guided by the purposes of research and the assumptions guiding the research, rather than any particular set of methods.

**Quantitative criticalist approach**

Specifically, a quantitative criticalist approach (Stage, 2007) draws on many of the assumptions articulated by Griffiths (1997) and can be located within Bredo’s (2006) interactionist tradition of educational research. This approach elaborates on how and why quantitative methods are appropriate to address critical and social justice questions. Drawing on Kincheloe and McLaren’s (1994) notions of critical theory, Stage defines a quantitative criticalist as one who challenges “the status quo on approaches to problems and actively seek[s] to constantly improve the state of the art, including models, measures, and the application of analytic methods” (p. 11). The quantitative criticalist
approach assumes a political, ethical, and value-laden nature of research (Baez, 2007; Carter & Hurtado, 2007; Kinzie, 2007; Stage, 2007). For example, Baez (2007) argues that “striving for social justice is a political goal, and so must the research that allows us to pursue that goal” (p. 21). In addition, Carter and Hurtado (2007) note, “researchers have particular assumptions and biases that can affect the kinds of measures used, the data collected, the participants involved in the research, the statistical methods used, and the interpretations of the results” (p. 32). Ultimately, quantitative criticalists are asked to “reject the claim that any position can be neutral or disinterested” (Kinzie, 2007, p. 82). This conception of research affects the questions asked, the populations examined, the variables entered, the models chosen, and the context in which the research is situated.

Stage (2007) argues that research on and for social justice should be driven by the questions asked, not the methods used to address these questions. The quantitative criticalist, then, “adapts a proactive stance by consciously choosing questions that seek to challenge. The quantitative criticalist seeks to forge challenges, illuminate conflict, and develop critique through quantitative methods in an effort to move theory, knowledge, and policy to a higher plane” (p. 8). In addition, the quantitative criticalist approach “does not seek merely to verify models. Rather it focuses on questioning and then modifying models or creating new models that better describe the ever-differentiating individuals who are the focus of educational research” (p. 9).

In view of that, the quantitative criticalist approach uses large samples and quantitative methods to examine questions related to equity and social justice relating to race, gender, power, and oppression. As Baez (1997) argues, “[W]hat we want to call
critical research is a judgment of society for the purposes of changing it. This is how we can judge such critique: To what extent does research—any research—question society, to what extent does it offer suggestions for transforming society, and to what extent does it judge itself?” (p. 21). Accordingly, quantitative criticalist research aims to “expose the power of institutional arrangements that dictate how we live and work” (p. 22). In addition, Kinzie (2007) notes, “Research conducted in this tradition has the responsibility to connect findings to social transformation and to illuminate” (p. 91). The goal of the quantitative criticalist is not to examine or “interpret the world…but to change it” (p. 22).

To do so, quantitative criticalists are conscious of and reflect on the methods used and the variables included and excluded in their models. Quantitative criticalists employ methods similar to those used in post positivist research. Researchers operating under these assumptions reflect on their practices (Baez, 2007), ensuring the “adequacy of proxies for complex and theoretical constructs…[and] identifying appropriate proxies for aspects of cultural and social capital” (Perna, 2007, p. 62). In addition, these researchers question the “assumptions, models, measures, and application of analytic methods” (Stage, 2007, p. 98). However, in terms of outcomes, quantitative criticalists seek to include variables and indicators in their models that are related to basic rights and equity. As Stage (2007) notes, “[I]t requires the development of inquiry focused on all aspects of quantitative research, questioning the status quo on approaches to problems and actively seeking to constantly improve the state of the art, include models, measures, and the application of analytic methods” (p. 11). Furthermore, the quantitative criticalist
approach acknowledges the limits inherent in conducting research in particular contexts and points in time.

Finally, quantitative criticalists often use local data drawn from the context to which they are connected. Stage (1997) uses Bensimon, Polkingham, Bauman, and Vallejo’s (2004) “practitioner-as-researcher” model in higher education as an example of quantitative critical research that locates research in the surroundings being studied. Specifically, Bensimon and colleagues offer a model of research on higher education that takes place in the university setting with involvement of faculty and administrators throughout the process. Together, researchers and stakeholders develop the questions, discuss the appropriateness of data collected, and contribute to the analysis and interpretation of the results. Stage suggests that “research conducted in this fashion is certainly critical and often quantitative; it provides the data deemed most relevant in answering the questions asked in the context being studied” (p. 11). Specifically, this allows for research that is sensitive to the context studied and the participants of interest.

Educational scholar, David Berliner (2006) provides an example of research that uses the quantitative criticalist approach. In his research on the role of poverty on student achievement in school reform, Berliner draws on quantitative data, such as results from the Trends in International Mathematics and Science Studies (TIMSS), Program in International Student Assessment (PISA), and Progress in International Reading and Literacy Studies (PIRLS), broken down by individuals at or below the poverty level. Berliner’s methods are no different than a researcher operating under post-positivist assumptions. However, Berliner’s questions and purposes explicitly seek to challenge the
status quo.

A quantitative criticalist approach is suited for this dissertation because it provides a methodology for investigating issues of social justice - specifically teacher candidates’ beliefs about social justice - using quantitative methods. This dissertation seeks to disrupt the assumptions driving current research on teacher education, including the notion that learning to teach is a linear process and the only worthwhile outcomes of teacher education can be traced to student achievement as measured by standardized assessments. Furthermore, by its very nature, the research in this dissertation is value-laden, political, and social. Its purpose is to examine how and in what ways teacher candidates’ changing beliefs about teaching for social justice – assumed to be an outcome of teacher education for social justice – are related to their social and contextual experiences before, during, and at the end of their formal teacher preparation.

Fundamentally, this research raises questions of power, privilege, and inequity. The outcome measure, scores from Learning to Teach for Social Justice-Beliefs (LTSJ-B) scale, assesses teacher candidates’ beliefs about power, oppression, inequity, and social justice as they relate to teaching. Each statement on the LTSJ-B scale has a “preferred” or “correct” response that is tied to notions of power, as well as political, moral, and ethical conceptions of teaching (Ludlow, Enterline & Cochran-Smith, 2008).

In addition, a quantitative criticalist perspective encourages critical examination of the methods used and variables that are included and excluded in the models, in particular the variables that serve as proxies for complex constructs such as teacher candidates’ beliefs about teaching for social justice and their perceptions and experiences.
before and during formal teacher preparation. For example, in this dissertation, I pay particular attention to how race is related to teacher candidates’ beliefs about teaching for social justice.

Finally, this study is sensitive to the individuals and the context being studied. Although this study does not employ the “practitioner-as-researcher” model, the measures in this study were developed in the environment of interest and seek to address questions to inform policy and practice in the context of the school being studied. In the following two sections, I place this study and its methodology and its guiding assumptions in a larger body of literature on and for teacher education for social justice.

**Review of previous syntheses and empirical research on teacher education and learning to teach for social justice**

In the past decade, four reviews have examined the conceptual and empirical literature on teacher education for social justice (Brown, 2004; Grant & Agosto, 2008; Shakman, 2009; Wiedeman, 2002). As “situated, partial, and perspectival” (Lather, 1999), each review looks at the literature on teacher education for social justice in different ways and approaches the literature with different boundaries, questions, and perspectives. Some studies reviewed in these syntheses overlap with my review of the empirical literature on teacher education for social justice. Together, the four reviews note the current accountability and outcomes movement in education. Specifically, two syntheses focus on movements related to teacher education for social justice and seek to define policies and practices that represent teacher education for social justice (Grant & Agosto,
2008; Wiedeman, 2002), one review examines findings from the empirical literature on learning to teach in a social justice oriented teacher preparation program (Shakman, 2009), and the other analyzes instruments used to assess educators’ beliefs about diversity, equity, and social justice (Brown, 2004).

This dissertation uses a quantitative criticalist perspective to examine teacher candidates’ beliefs about teaching for social justice, as well as perceptions and experiences that may be related to their subsequent beliefs. Taking a different approach from previous reviews, this review examines the empirical literature on teacher education and learning to teach for social justice in terms of the underlying assumptions, designs and methods guiding the empirical research on teacher education and learning to teach for social justice. I organize the literature in this way to highlight the ways that researchers have examined questions related to learning to teach and teacher education for social justice, and to highlight common approaches and holes in the literature.

This review includes contemporary empirical studies, published between 1999 and 2009 that explicitly address teacher education and/or learning to teach for social justice. Scholars (Cochran-Smith, 2008, 2010; McDonald & Zeichner, 2009; Shakman, 2009; Zeichner, 2009) note the proliferation of social justice-oriented teacher preparation programs that has occurred over the past decade. In view of that, this period was chosen because it covers the time in which there has been both a marked increase in the number of teacher preparation programs for social justice and an increased emphasis on outcomes in teacher education (Cochran-Smith & Zeichner, 2005).
This review covers peer-reviewed journal articles from a variety of theoretical and methodological perspectives. Specifically, to identify high quality and methodologically rigorous studies, a search of the Educational Resource Information Center (ERIC) database was conducted using the search terms “teacher education” or “teacher preparation” or “learning to teach” and “social justice.” In addition, relevant doctoral dissertations on teacher education for social justice from scholars with published records of research on teacher education for social justice were also included.

I began this search by examining the abstracts of 180 peer-reviewed articles to determine those that were in empirical in nature. From there, I closely read approximately 80 articles. These articles included some conceptual pieces (e.g., Garmon, 2005) and descriptive articles (e.g., Villegas, 2007) that were ultimately excluded from this review. For example, Garmon (2005) identifies six key factors for changing preservice teachers’ attitudes and beliefs about diversity, including dispositions such as openness, self-awareness, commitment to teaching for social justice, and a variety of intercultural, educational, and support-group experiences. However, these factors are not findings of an empirical study. For this review, only empirical studies that clearly document the purpose of the study, participants, data sources, analyses, and findings were included.

In addition, only studies that examined the impact and experience of teacher preparation on teacher candidates were included. Studies that examined the perspectives and experiences of teacher educators (e.g., Moule, 2005; Zollers, Albert & Cochran-Smith, 2000) were excluded. For example, in a self-study, Moule (2005) examined the
burden placed on faculty of color in a social justice-oriented teacher education program. While relevant to teacher candidates’ experiences during formal teacher preparation, Moule’s study does not specifically address the experiences or beliefs of teacher candidates before, during, or after their formal teacher preparation.

Although authors drew on different conceptual understandings of the term “social justice,” studies were included if the author(s) identified the research as a study on learning to teach and/or teacher preparation for social justice. The theoretical and conceptual frameworks underlying the empirical studies in this review include educational equity and teacher advocacy, critical pedagogy, teacher education for diversity, border pedagogy, multicultural education, anti-racist pedagogy, critical race theory, multicultural social reconstructivist theory, feminist critical theory, and theories of teaching and teacher education for social justice. This highlights the tensions and complexities identified in the conceptual review of theories of teacher education for social justice.

Finally, there is a body of empirical research on teacher education and learning to teach for social justice that takes place in international settings (e.g., New Zealand, Australia, Ireland, and United Kingdom). However, studies from outside of the United States or Canada were excluded from this review. Studies in the United States and Canada were included as they take place in similar socio-political contexts.

Accordingly, each study in this review met the following criteria:
(1) The study was published in a peer-reviewed journal or was a non-published dissertation written by a scholar with a published record of research on teacher education for social justice completed between 1999 and 2009.

(2) The study provided enough information to be considered empirical in nature. Specifically, the study presented the context, participants, data sources, analyses, and findings in a logical and coherent manner.

(3) The study examined the experience or impact of formal teacher preparation for social justice on teacher candidates and/or offered implications to teacher preparation for social justice through an examination of the first year(s) of teaching.

(4) The author(s) identified his/her/their work in terms of teacher education or learning to teach for social justice.

(5) The study took place in the United States or Canada.

This review of the literature includes 41 empirical studies that use a range of designs and methods to investigate questions related to teacher education for social justice. (See Appendix A for a chart of all studies included in this review.) This review is first organized according to the design of the study, specifically what I identify as short-term studies or interventions (e.g., an assignment, course, or field experience of less than a year) and long-term, longitudinal studies (e.g., examination of an entire teacher preparation program and/or the first year(s) of teaching that take place over the course of at least one year). Twenty-one studies fall into the “short-term” category, and 20 studies
are classified as “long-term, longitudinal.” Within each design, the studies are grouped according to primary methods or methodology, specifically whether they rely primarily on qualitative or quantitative methods. Across all studies, the vast majority, 37 studies, use primarily qualitative methods/methodologies to address their research questions. In each section, I discuss the purpose of the studies, data collected, findings, and the strengths and limitations of the design and methods used to investigate teacher preparation and learning to teach for social justice. In addition, I examine the different approaches to knowing and underlying assumptions guiding the research.

**Research on short-term interventions**

In a review of the literature on teacher education for social justice, Shakman (2009) notes that much of the empirical literature focuses on “examining the impact of a course or program component, such as a multicultural education course, a specific field placement, or an inquiry-based project, on teacher candidates or graduates” (p. 80). The empirical research on short-term interventions includes teacher candidates’ experiences with and the impact of various short-term interventions and is divided into two sections: studies using primarily qualitative methods and studies using primarily quantitative methods. The studies in this section are roughly organized according to the particular experience or intervention.

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5 Although some studies use both qualitative and quantitative data, I found no studies that identified themselves as “mixed methods” studies. All studies in this review relied primarily on either qualitative or quantitative methodologies.
Studies on short-term interventions using qualitative methods

Eighteen studies are classified as short-term studies that use primarily qualitative methods and/or methodologies. These studies focus on the experiences of teacher candidates during particular aspects of the teacher preparation program, ranging from the experience and impact of a guest speaker to the experience of a course or community immersion project. These studies draw on the notion that “reality cannot be known apart from the knower and that knowing always happens in context” (Sleeter, 2001, p. 223). As Sleeter (2001) notes, applied to teacher education, this research

…is concerned with the ways in which people experience and interpret courses, programs, and other specific interventions. What actually occurs in a class or program? What does it look like from the points of view of various participants? How do preservice students think about race and culture, and how do they interpret coursework in this area (p. 223)?

The qualitative, short-term studies in this section are grouped in the following three categories: assignments and discrete experiences within a course, individual courses, and field experiences.

In seven qualitative studies, the authors examine the impact of and/or teacher candidates’ experiences with a distinct assignment or experience in a particular course (Athanases & Larrabee, 2003; deFrietas, 2008; Hyland & Noffke, 2007; Lenski, Crumpler, Stallworth & Crawford, 2005; Pugach, Longwell-Grice, Ford & Surma, 2008; Romo & Chavez, 2006; Rosaen, 2003). Across these studies, the researchers described
and interpreted how teacher candidates experienced these interventions. Furthermore, the authors documented promising tools for promoting inquiry and reflection and described change in some candidates’ beliefs or knowledge surrounding issues of teaching for social justice. However, the researchers also found resistance or little change in the beliefs other teacher candidates.

For example, Athanases and Larrabee (2003) examined how teacher candidates enrolled in three sections of a course entitled “Cultural Diversity, and Education” experience and respond to a guest speaker’s presentation regarding lesbian and gay (LG) issues in schools. Drawing on an equity framework, the authors analyzed 97 teacher candidates’ written reflections to instruction on LG-identified youth, anonymous course evaluations, and interviews with course instructors. After analysis and triangulation of the data, Athanases and Larrabee identified four themes: value on developing knowledge about LG people; beginning to wear the mantle of advocate for LG youth; questions, resistance, and reconciliation related to LG issues; and stances toward LG educators.

The authors found that most teacher candidates had strong responses to cultural insider perspectives and began to articulate their views as educators in terms of advocating for LG youth. However, they also identified individuals who experienced resistance to issues surrounding LG youth, particularly those with strongly held religious beliefs. Ultimately, Athanases and Larrabee identified positive teacher candidate response to the guest speaker and recommended further emphasis on dealing with LG issues in schools during formal teacher preparation.

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6 In the description of each study, I employ the vocabulary and language used by the authors.
While Athanases and Larrabee (2003) identified meaningful ways in which to impact teacher candidates’ views about issues surrounding gay and lesbian youths in schools, this study begs the following questions: How much and how long-lasting of an impact does one guest speaker have on the beliefs and learning of teacher candidates? How does the experience of the guest speaker interact with teacher candidates’ prior beliefs, other experiences in the course, outside courses, and field experiences during teacher preparation program?

Taking a slightly different approach, six studies examined teacher candidates’ learning through course assignments, ethnographic papers, or final projects designed to promote reflection and inquiry (deFreitas, 2008; Hyland & Noffke, 2007; Lenski, et al., 2005; Pugach, Longwell-Grice, et al., 2008; Romo & Chavez, 2006; Rosaen, 2004). In three of these studies, the researchers identified how assignments and projects could be used as promising tools for reflection, learning, and teaching for social justice. Lenski, Crumpler, Stallworth, and Crawford (2005) examined teacher candidates’ experiences with an ethnographic research paper as a tool to develop more effective ways to address culture and cultural differences. Specifically, through analysis of teacher candidates’ responses to a question about diversity at the beginning of the project, their observational field notes of community sites, final ethnographic papers, and interviews, they identified three conceptual strands that include initially resisting ethnographic roles, growing awareness of how this type of observation could inform teaching, and developing an understanding of ethnography. Accordingly, the authors examined multiple perspectives and points of view to analyze teacher candidates’ experiences in their ethnographic roles.
Lenski et al., found that teacher candidates began to interact with other perspectives than their own. They also found that the observational skills developed through ethnography were considered valuable for learning about students.

In addition, Hyland and Noffke investigated how preservice teachers in social studies methods courses at two universities came to understand group marginality and diversity through social and community inquiry assignments. In studies of this kind, knowledge is assumed to be socially constructed in the “contexts in which people make meaning” (Sleeter, 2001, p. 223). After analyzing data from the inquiry assignments, written reflections, course evaluations, observations of in-class presentations, and interviews, Hyland and Noffke identified multiple emergent themes, including preservice teachers viewing themselves in relationship to historically marginalized groups, identifying structural inequality with regard to services and voice, developing a sympathetic understanding about people from historically marginalized groups, and identifying the relationships between the inquiry assignments and their future role as teachers. Hyland and Noffke concluded that, through these assignments, preservice teachers developed an understanding of issues of marginality and their role as teachers.

Furthermore, in a collaborative self-study, Rosaen examined poetry as a site for creating participatory spaces for teacher candidates to explore aspects of their own culture, share knowledge with one another, and consider ways in which poetry can be explored by making connections with their personal lives and with other texts they have read or have written. Rosaen work with the participants in the study to examine their
experiences. While Rosaen found that the poetry assignment was viewed as a site for learning, the depth and range of learning varied among individuals in the course. After close examination of the poetry assignments, Rosaen noted that two students reflected on broader curricular issues, twelve students wrote about specific activities they would use in their classroom, seven wrote about the sorts of issues that could be explored through poetry writing, nine provided examples of developing a deeper understanding of their own background or enjoyed reflecting on their background, and only three students chose to write about connections with the social-action perspective explored in class. From this, Rosaen concluded that teacher educators control little of what teacher candidates take away from activities and assignments.

The variation in teacher candidate learning was evident across three other studies in which researchers examined the impact of assignments or course projects. Romo and Chavez (2006) examined integrative essays that participants wrote at the end of a multicultural education course combined with community immersion experience, to better understand how future teacher candidates are prepared to teach in a border context. They found that the contrast of classroom discussion and theory with experiential learning in the course helped participants reconstruct and embrace their renewed professional identities and work effectively in diverse settings, particularly in the nearby border region. However, Romo and Chavez concluded that, even after the multicultural education course, most students were “underprepared to deal with the complexities of border regions and to function as effective teachers in those diverse areas” (p. 146).
Similarly, Pugach, Longwell-Grice, Ford, and Surma (2008) examined 15 exit portfolios from participants in a teacher education program to analyze candidates’ representations of equity and diversity. From analysis of the exit portfolios, the authors developed five specific concepts from the program that were used in the holistic analysis of the portfolios, including asset/deficit perspectives; connecting with families; equity/social justice; high expectations; and contextualizing teaching and learning. Pugach et al., found that, in all 15 portfolios, teacher candidates demonstrated general familiarity with the language related to urban teaching, equity, and diversity; a basic level of awareness in considering the backgrounds of children, families, and communities in making teaching decisions; and enthusiasm for their work and the profession of teaching. However, there was a discrepancy in terms of the how teacher candidates conceptualized and articulated equity and diversity in practice.

While focusing on one particular assignment, researchers in these studies drew on a wealth of data including lesson plans, interviews, observations, and written reflections to investigate teacher candidates’ experiences and learning, taking into account the perspectives of the participants. Accordingly, the researchers built on in-depth knowledge of the context and experience of teacher candidates to identify promising assignments and projects within courses that may contribute to teacher candidates’ reflection, learning, and beliefs about teaching for social justice. However, the discrete interventions presented in these studies offer limited learning opportunities for teacher candidates at one point in time, or at best, over very limited periods of time. These experiences and projects were often the first opportunities for teacher candidates to reflect on and learn
about themselves, others, and their roles as professional educators in the broader community.

Furthermore, these studies did not examine how these assignments fit within the larger teacher preparation program. Were these assignments reinforced throughout the program in coursework and field experiences? Pugach et al. (2008) argued for the need for consistency among faculty expectations, scaffolding, and program goals to promote long-term learning to teaching for social justice. Similarly, Rosaen concluded that there is a need for a set of interrelated experiences to meaningfully effect change and the need for more "satisfying and informative ways to measure teacher candidates' learning" (p. 1475). In addition, Rosaen noted, "a longitudinal design…would enable a fuller view of when and how [teacher candidates] act on their emerging understandings" (p. 1476) both within the course and beyond.

Eight qualitative studies begin to address these questions by looking beyond discrete experiences and assignments and examining teacher candidates’ experience through the duration of individual courses (Bradley, Golner & Hanson, 2007; Chubbuck, 2007; Graziano, 2008; Greenman & Dieckmann, 2004; Kroll, 2004; Lewis, 2001; Lynn & Smith-Maddox, 2007; Moore, 2008). As Sleeter (2001) notes in her epistemological review of research on preservice teacher preparation for historically underserved children, these studies assume that preservice students construct beliefs and meaning in the context of teacher education programs and that those meaning become the basis for their
subsequent teaching. The main purpose of research is to uncover how they interpret human diversity…and how they interpret these experiences within their preservice program (p. 224).

These studies begin to explore the relationships among teacher candidates’ identity, prior experiences, perceptions, and learning to teach for social justice. In two studies, researchers examined practices and experiences that promoted growth and learning among teacher candidates. For example, Greenman and Dieckmann (2004) examined teacher candidates’ experiences in a university course, Theory and Dynamics of Intercultural Interaction in Education, as the vehicle for exploring the “efficacy of criticality and culture for transformative teacher education” (p. 240). Through systematic review of course documents, including evaluations, student journals, course papers, and proposals, informal discussions, and post-course interviews, the authors found that “informality, power sharing, awakenings, first steps, and praxis” contributed to the transformative experience of the course (p. 247).

Similarly, drawing on theories of multiculturalism, equity, and social justice, Lynn and Smith-Maddox (2007) sought to understand how teacher candidates learn to discuss concepts related to social justice relevance, analyze their emerging teacher identities, make defensible goals regarding classroom, and establish a community of practice in a year-long inquiry course. The participants met once a month for one hour to discuss and reflect on key social justice issues. Lynn and Smith-Maddox found that participation in the “dialogical process promotes a disposition toward critical examination
and shared appreciation of what it means to be a social justice educator” (p. 103). In this process, teacher candidates had multiple opportunities to consult with each other, deliberate on the problems of teaching and construct possible solutions, reflect on subtleties and complexities of classroom life, and examine their roles as reflective practitioners.

In addition, Graziano (2008) examined the teacher candidates’ experiences while restructuring a course on social justice and diversity to reflect critical pedagogy in theory and practice. Analyzing responses from teacher candidates who responded to pre-, mid- and post-course surveys, Graziano found that, while in the pre-survey there was uncertainty and ambivalence about the course structure and how to handle the power and responsibility of co-developing the course, as the semester progressed, students moved from uncertainty to acceptance.

Some studies noted the complex relationships among teacher candidates’ prior experiences, their experiences in particular courses, and their beliefs about teaching for social justice. For example, Moore (2008) examined how elementary preservice teachers' conceptions of "agents of change" shaped their identities and agencies as science teachers. Moore analyzed the extent to which elementary preservice teachers' perceptions of change agents framed their understanding of teaching science for social justice in urban elementary classrooms. Specifically, Moore analyzed data from book club reflections, initial and final surveys, and semi-structured interviews. From this study, five major themes emerged: institutionally granted power; change agent with limited agency;
change agent as a science teacher; not yet an agent of change; change agent beyond the classroom level. Moore concluded, “[I]dentify and agency connect, influence, and shape each other in preservice teachers becoming agents of change” (p. 608).

Lewis (2001) examined undergraduate teacher candidates’ perceptions of social justice, how the educational/life experiences of the teacher candidates affected their perceptions of social justice, and how their participation in an undergraduate social foundations course influenced their beliefs about social justice. Using qualitative case study methodology, Lewis documented the experiences of one participant who found that the course was "eye-opening." However, Lewis notes that one 15-week course is "insufficient" to raise consciousness and facilitate long-term empowerment. Lewis suggests that the development of a collaborative, not compartmentalized, approach to teacher education is one way to provide preservice teachers with the space and support they need to find answers to their questions about social justice.

Only one study examined teacher candidates’ experiences in a course within the larger context of the teacher preparation program. Analyzing data from focus groups and reflective journals, Chubbuck (2007) examined the concerns expressed by preservice teachers as they explored their role in enacting social justice, as well as the extent to which the components of critical pedagogy and Ignatian pedagogy interacted in a Jesuit university with an overarching theme of teaching for social justice.

Just as in the studies of discrete assignments, the authors of these studies argue that one course is not enough to raise consciousness and adequately prepare teachers to
teach for social justice. Furthermore, as Chubbuck argues, "dialogue about social justice issues...alone is insufficient to change what are often entrenched views and dispositions regarding minority learners" (p. 103). Some researchers recognize and address the complex relationship among teacher candidates’ prior experiences and beliefs and their experiences within these courses. However, they fail to look beyond the individual courses to examine how, for example, field experiences and student teaching may also play a role in developing or changing teacher candidates’ beliefs during formal teacher preparation (Sleeter, 2001; Wideen, et al., 1998).

Three qualitative studies examined teacher candidates’ experiences in field experiences, practica and student teaching (Adams, Bondy & Kuhel, 2005; Burant & Kirby, 2002; Cherian, 2007). For instance, Adams, Bondy, and Kuhel (2005) examined the influence of an initial field experience, in which preservice teachers participated in one-on-one tutoring with students in local public housing project. Similarly, Burant and Kirby (2002) examined the experiences of preservice teachers in an urban school and community-based early field experience that integrated with foundations of education and general methods courses. In both studies, researchers found that teacher candidates responded to the experience in a variety of ways. Adams et al., characterized preservice responses in terms of resistance, heightened awareness, conscious openness, knowing children as learners, cultural responsivity, insights into oppression, and passion and commitment. Burant and Kirby categorized the participants’ experiences as deepening multicultural, eye-opening and transformational, masked multicultural, partially mis-educative, and escaping. The researchers also identified multiple factors that affected
individual responses including prior knowledge, experiences with diverse populations, and dispositions that contribute to challenging prior beliefs and assumptions.

However, as Adams and colleagues noted, there was not always a direct and obvious connection between an individual’s background and his/her response to the field experience. Furthermore, citing Haberman (1987), Burant and Kirby recommended that the teacher education community further define and measure the dispositions necessary to teach in increasingly complex classrooms with culturally diverse students.

The short-term qualitative studies that examined courses and field experiences contribute to the literature on learning to teach for social justice, and begin to address how teacher candidates’ prior experiences, perceptions, and beliefs are related to their learning to teach for social justice. These studies “show the process and experience of change (or lack there of) in the context of a specific experience” (Sleeter, 2001, p. 227). In addition, they provide rich description and an initial view of the complexities of teaching and learning within the context of a course or field experience. Some of these promising policies and practices are identified in the Wiedeman’s (2002) and Grant and Agosto’s (2008) reviews of the literature on teacher education for social justice, such as reflection, critical pedagogy, and social change and change agents.

However, although these studies begin to uncover and explore the complexities of learning to teach, they fail to capitalize on how these experiences fit within the context of overall teacher preparation programs (Grant & Agosto, 2008) and fail to provide a thorough description of the overarching structure of teacher preparation programs.
Accordingly, it is difficult to know whether these short-term experiences had an impact on teacher candidates’ beliefs in the larger context of teacher preparation. Furthermore, the unique nature of teacher candidates’ experiences within each of these courses and experiences and the qualitative methods employed to examine their experiences make comparisons or conclusions across studies difficult (Sleeter, 2001; Wideen, et al., 1998).

**Short-term interventions using quantitative methods**

Three studies used questionnaires and surveys to measure and assess teacher candidates’ beliefs about teaching for social justice at the beginning of formal teacher preparation and before and after individual courses and field experiences (Cho & DeCastro-Ambrosetti, 2007; Rios & Montecinos, 1999; Wiggins, Follo, & Eberly, 2007). These studies used standardized instruments to “identify generalizable patterns in human behavior” (Sleeter, 2001, p. 214), measure the degree of commitment to teaching for social justice, or assess the impact of a course or field experience in terms of change in teacher candidates’ beliefs. These researchers generally assumed that patterns of behavior can be predicted and generalized.

For example, Rios and Montecinos (1999) examined the extent to which teacher candidates of color understood the specific practices of multicultural education at the beginning of their teacher preparation program, as well as which practices teacher candidates endorsed or rejected. Specifically, Rios and Montecinos asked 29 teacher candidates of color to respond to a questionnaire on multicultural education at the beginning of a multicultural education course. The questionnaire asked teacher candidates to choose one of Sleeter and Grant’s (1993) approaches to multicultural
education that most reflected their views on multicultural education. They found that 20 respondents endorsed teaching for social justice, but differed in terms of the approaches to multicultural education that they endorsed.

In addition, Cho and DeCastro-Ambrosetti (2007) explored the effects of a multicultural education course on teacher candidates’ attitudes about the experiences, needs, and resources of culturally and linguistically diverse student populations. Specifically, the researchers conducted descriptive statistics and t-tests of secondary education teacher candidates’ responses to 25-item Likert-scale pre- and post-surveys. From this study, Cho and DeCastro-Ambrosetti found that teacher candidates significantly increased their awareness and appreciation toward other cultures. Furthermore, participants’ attitudes toward working with diverse learners also significantly increased.

Finally, Wiggins, Follo, and Eberly (2007) examined the impact of a field immersion program on teacher candidates’ attitudes and beliefs about teaching in culturally diverse classrooms. Wiggins et al. describe the degree to which preservice teachers' comfort level in culturally diverse and urban classrooms changed as a function of the nature and length of a specifically designed field experience. This study involved a sample of 62 preservice teachers assigned to one of two program designs and a control group of 15 substitute teachers. The participants completed pre- and post-surveys that included 34 statements on a five-point Likert Scale. From analysis of the responses, the authors identified three scales: factors that foster; factors that constrain; and prior
experience with cultural diversity. Wiggins et al., found that the three constructs were significantly interrelated. In addition, the authors conducted Multivariate Analysis of Variance (MANOVA) and found that the groups’ attitudes differed significantly from each other and across time. The authors concluded that targeted field placement, support from peers and teachers, and meaningful coursework facilitated the preparation of culturally responsive teachers, even for those with no prior experience in culturally diverse communities.

These quantitative studies sought to measure teacher candidates’ beliefs and attitudes toward various aspects of teaching for social justice, as well as their change in beliefs about teaching for social justice in a course or field experience. Like the short-term qualitative studies, they offer some evidence that after completion of a course or field experience, teacher candidates increased in their awareness of and commitment to teaching for social justice. In addition, these studies provide measures that can be used to analyze and compare teacher candidates’ change in beliefs. However, only Wiggins et al., (2007) adequately described the instruments and provided evidence of the soundness of these measures. This finding is consistent with Brown’s (2004) review of existing measures to assess beliefs and attitudes regarding diversity, social justice, and equity, that found few authors provided psychometric evidence of their instruments. Brown concludes that further development and use of instruments that “report validity and reliability data, and that are relatively easy to administer and score” (p. 332) are needed to examine educators’ beliefs about issues of diversity, equity, and social justice and determine the effectiveness of social justice-oriented preparation programs on a large
scale. Furthermore, these studies face the similar challenges as the short-term, qualitative studies, in that they fail to describe the larger context of the teacher education program.

Across the short-term studies, there are glimpses of promising practices that relate to teacher candidates’ learning to teach for social justice. However, in her review, Shakman (2009) critiques these studies, noting that in most of these studies, the researchers were in positions of power or deeply invested in the success of aspects of the teacher preparation programs. Did the researchers’ positions as faculty or program leaders influence teacher candidates’ responses? Did the researchers see what they wanted to see? Sleeter (2001) echoes this concern saying, “An obvious bias is that faculty are most likely to write about strategies that seem to ‘work,’ and their data reflect what students choose to reveal to the professor. Would another observer see the same successes” (p. 227)?

Furthermore, to untangle the complex processes of learning to teach for social justice, Morva McDonald (2008) argues,

[W]e are in need of studies that examine teacher education programs as systems in which prospective teachers’ opportunities to learn are shaped by their experiences across the program and that try to understand these opportunities in relation to the larger vision of teaching and learning emphasized by the programs (p. 165).

The longitudinal studies reviewed in the following two sections address some of these weaknesses and seek to untangle the complexity of learning to teach for social
justice while examining the relationship among identity, beliefs, experiences, and formal teacher education.

Long-term longitudinal studies

Twenty studies sought to examine teacher candidates’ experiences through longitudinal studies of longer than one year. These studies examined teacher candidates’ and beginning teachers’ experiences in relation to teacher preparation. This research benefits from the nature and length of the studies to investigate the complexities of learning to teach for social justice.

Long-term, longitudinal studies using qualitative methods

Nineteen studies used primarily qualitative methods and/or methodologies to investigate teacher candidates’ beliefs and experiences in formal teacher preparation and the first years of teaching. Like the short-term qualitative studies, these long-term studies assumed that “knowing always happens in the context” (Sleeter, 2001, p. 223). Accordingly, “the main research device is not a replicable measuring device but, rather, the [researcher] who cannot help but bring a point of view” (Sleeter, 2001, p. 223). Furthermore, “the purpose [of this research] is not to generalize but, rather, to help teacher educators reflect on their own programs: ‘Insights gathered from these case studies may assist in determining what might work best for another group in similar circumstances’” (Bullock, 1997, p. 1027 as cited in Sleeter, 2001, p. 224). The qualitative studies are grouped according to time in which the study took place: formal teacher preparation; formal teacher preparation through the first year(s) of teaching; and the first
year(s) of teaching looking back on formal teacher preparation. These studies address the complex relationships among teacher candidates’ identities, beliefs, perceptions, and experiences and learning to teach for social justice.

Eight studies examined teacher candidates’ experiences through the duration of a teacher preparation program or instructional initiative (Au & Blake, 2003; Bennett, 2002; Bennett, Cole & Johnson, 2000; Gomez, Black & Allen, 2007; Johnston-Parsons, Lee & Thomas, 2007; Levine-Rasky, 2001; McDonald, 2005; Thomas & Vanderhaar, 2008). For example, Levine-Rasky (2001) examined how prospective teachers respond to the social difference encountered in educational discourse and in the public schools over the course of a concurrent B.A./B.Ed. program at a Canadian university. Three teacher candidates were selected from a larger body of data on 35 teacher candidates enrolled in the program. Through the constant comparative method of analyzing data collected during observations and interviews, Levine-Rasky identified three emergent "signposts": prospective multicultural educators personally identify with inequality or social injustice; prospective multicultural educators value critical pedagogy and multicultural social reconstructionist education; prospective multicultural educators desire to learn more about educational inequality and its causes. Levine-Rasky found that the participants differed in the extent to which they embraced these “signposts” based on their prior experiences, beliefs, and dispositions.

Five of these studies focused on the relationship between teacher candidates’ identity and their experiences during teacher preparation. Whereas, in her review of the
literature on teacher education for social justice, Wiedeman (2002) found a paucity of research on experiences of teacher candidates of color, several recent studies focused on the experiences of teacher candidates of color and examined the relationship between identity and learning to teach for social justice. For instance, Au & Blake (2003) used an interpretivist framework to look at the influence of cultural identity - including ethnicity, social class, and community membership - on the perspectives and learning of preservice teachers in Hawaii. The three participants were chosen from a cohort of 28 preservice students, and each came from different racial/ethnic, socio-economic, linguistic, and experiential backgrounds. From analysis of written assignments and interview data, four common themes emerged, including a value of literacy, teaching of reading and writing, principles of instruction, and a safe class environment. Two participants shared themes of Hawaiian culture and social justice. However unique themes also emerged, including becoming a good teacher to all students, balancing between western and Hawaiian cultures, providing quality education, and awareness of self-knowledge. Au and Blake recommended further research to guide the development of teacher education programs specifically designed to address the needs of candidates of diverse backgrounds.

In addition, in a three-year longitudinal study, Johnston-Parsons, et al., (2007) examined the experience students of color as "cultural consultants" in a “mostly White” teacher preparation program. Specifically, Johnston-Parson and colleagues asked, “Are teachers of color in teacher education programs oppressed by their minority positions in mostly White teacher education programs? What can students of color, from their subject positions, help us to understand about creating more culturally sensitive programs for
future teachers?” (p. 58) Through analysis of tape recorded conversations, personal journals, video-taped observations, and teacher candidate written documents, the researchers found significant value in meeting separately and in building programmatic space for students of color and professors to talk with each other about open topics.

Similarly, in a longitudinal action research study, Bennett et al., (2000) and Bennett (2002) examined the process of inquiry within a group of African American and Latino students who participated in Project TEAM, an initiative designed to support underrepresented minority preservice teachers on a predominantly White college campus. Participants included 78 members from three cohorts of Project TEAM. From analysis of questionnaires, interviews, and selected course assignments, four common themes emerged to explain Project TEAM experience: creating community on a predominantly White campus; ethnic identity; social justice; and becoming a teacher. These studies suggest the complex relationship among identity, community, and formal teacher preparation.

The relationship between identity and learning to teach was also explored by Gomez, Black, and Allen (2007) who examined one prospective teacher’s understanding of herself as a White person, the dilemmas she encountered as a prospective teacher when she began to understand who she was as a White person, how she negotiated these dilemmas, and the role that her teacher education program played in supporting these negotiations. The researchers followed Allison through four semesters of her teacher education program, analyzed data from interviews with Allison and program faculty, and
identified recurring themes in how she talked about her identity and her role as a teacher. They found that particular incidents, or "critical moments," created a sense of disequilibrium that forced her to approach her beliefs and roles as a teacher through “new and different ways of thinking.” Gomez and colleagues argued, “[P]reservice teachers require many, many occasions to interrogate their practices and to understand how these are meeting or failing students' need” (p. 2133). This, according to Gomez, Black, and Allen, occurs as a synthesis of experiences, courses, and opportunities to learn within the teacher education program.

In two studies, the researchers examined learning to teach for social justice at the program level by studying how the themes, curricula, policies, practices, and assignments in the teacher education programs relate to teacher candidates’ learning to teach for social justice. Thomas and Vanderhaar (2008) sought to investigate the extent to which multicultural education was part of the teacher education program and how teacher candidates react to the multicultural components of their teacher education program. Thomas and Vanderhaar selected five teacher candidates from a cohort of 17 who represented “a range” with respect to performance in coursework (i.e., above average, average, and marginal). Multiple data sources were used for this study, including the multicultural education program curricula, syllabi from courses, self-reported assessments, observed interactions between and among candidates and their professors, and interview transcripts. Thomas and Vanderhaar found that, although multicultural education was a stated goal, the focus was inadequate and lacked explicitness. As a result, only one teacher candidate in the study viewed multicultural education as an
integral part of teaching. Furthermore, participants did not fully develop the knowledge, skills, and dispositions to facilitate substantive multicultural education. Thomas and Vanderhaar found that multicultural education was not systematically or consistently a part of the program and that the teacher candidates did not observe multicultural teaching in field placement or coursework. Accordingly, teacher candidates in the study actively resisted many efforts to incorporate multicultural education into the curricula. The authors concluded that this study reflected the complexities and difficulties related to implementing and sustaining multicultural education. They recommended that multicultural education should be systematic, deliberate, visible, and aligned with performance-based outcomes in candidates' program experiences.

In addition, McDonald (2005) examined how two teacher education programs implement social justice across an entire program, and what the prospective teachers' opportunities to learn about social justice looks like in these programs. McDonald followed 10 prospective teachers (five from each program) selected based on demographic characteristics, beliefs about teaching and students, prior teaching experience, knowledge of the programs' commitments to social justice, and clinical placement assignment. McDonald analyzed a variety of data including observation and interview data, course syllabi and accreditation documents. McDonald found that both programs intended to integrate social justice. However, the implementation of social justice varied in practice along specific dimensions that inform prospective teachers' opportunities to learn, including variation in terms of emphasis on conceptual and practical tools relating to social justice as well as variation at individual, organizational,
and institutional levels. Specifically, prospective teachers’ opportunities to learn conceptual tools outweighed their opportunities to learn practical tools. McDonald suggested that further inquiry into social justice programs would be enhanced by further refinement of a theory of justice as practiced in teacher education.

Six methodologically rigorous qualitative studies on learning to teach for social justice followed participants through teacher preparation and into their first years of teaching (Cochran-Smith, Shakman, Jong, Terrell, Barnatt & McQuillan, 2009; Damico & Riddle, 2004; Jones & Enriquez, 2009; McQuillan, D’Souza, Schoepner, Miller, Gleeson, Mitchell, Enterline & Cochran-Smith, 2009; McQuillan, Jong, D’Souza, Mitchell, Lam, Shakman, Gleeson, Enterline, Power & Cochran-Smith, 2009; Shakman, 2009). These studies document how, when, and what teacher candidates learned as they went through a teacher preparation program and how they negotiated their knowledge, skills, and beliefs in the context of the classroom as full-time teachers of record. The researchers found that learning to teach for social justice occurred as a complex, ongoing, iterative process that often took place through a series of critical moments or dilemmas (Damico & Riddle, 2004; Jones & Enriquez, 2009; McQuillan, D’Souza, et al, 2009; McQuillan, Jong, et al., 2009; Shakman, 2009).

For example, Damico and Riddle (2004) highlight "critical moments" that took place during one participant’s preservice year and first year of teaching. In this qualitative case study, through observations and interviews, the authors followed Ruthie over two years and examined assignments that signaled a shift in her perceptions of teaching
literature with a social justice perspective. Damico and Riddle found that, through these literacy assignments, Ruthie shifted from “having answers” to “asking critical questions” regarding issues of teaching for social justice. The authors recommended greater support in preparing teachers to work from inquiry and social justice perspectives.

Jones and Enriquez (2009) conducted a four-year qualitative case study investigating “meaning-making” of two graduate-level teacher candidates. Specifically, the researchers analyzed the participants’ engagements with teacher education for social justice in terms of Bourdieu’s notions of habitus, field, power, and practice. Jones and Enriquez found that each participant negotiated various “spheres” of past and present experiences to understand how or whether to integrate an intellectual and moral stance in teaching for social justice. Ultimately, from this study, Jones and Enriquez concluded, "[P]edagogy in a university teacher education course is a point of contact and point of departure, as something that may prompt a learner's willingness to adjust his or her habitus" (p. 264).

In four studies from a larger qualitative case study project of 12 Masters-level teacher candidates as part of the work of the Boston College Evidence Team, researchers examined the experiences of teacher candidates as they learned to teach for social justice during teacher education and into their first year(s) of teaching (Cochran-Smith, Shakman, et al., 2009; McQuillan, D’Souza, et al., 2009; McQuillan, Jong, et al., 2009; Shakman, 2009). For example, Cochran-Smith, and colleagues (2009) examined the experiences of 12 teacher candidates’/first-year teachers’ understandings of what it means
to teach for social justice. Specifically, in this two-year longitudinal study stretching through teacher preparation and the first year of teaching, Cochran-Smith, et al., focused on what candidates said about teaching for social justice and how these understandings played out in practice. This study drew from a wealth of data including multiple structured interviews, classroom observations, course documents, and pupil-work samples. From the analysis, the research team identified 27 codes representing ideas about social justice in four categories: pupil learning, relationships and respect, teacher as activist, and recognizing inequities. The teacher candidates/teachers consistently referred to learning as the bottom line of teaching. However, they seldom referred to critiques of larger structures and arrangements in schooling or more influence within the classroom. Cochran-Smith and colleagues concluded that teacher candidates and beginning teachers start to act on teaching for social justice at the individual level, and teacher preparation should consider this a starting point for new teachers.

In addition, Shakman (2009) investigated the experience of two teacher candidates over four years from entry into the teacher education program through the first year(s) of teaching. By examining the experiences of one participant who was successful in teaching, and one who experienced failure, Shakman found that “learning to teach in a program with a stated social justice agenda was a complex process of negotiating several different and, at times, competing discourses of social justice” (p. 150). Specifically, Shakman associated the participants’ success or failure in terms of the context, support, tensions, and their own “capacity” to handle the conflicts they encountered.
Finally, five studies examine beginning teachers’ experiences with an eye toward formal teacher preparation (Athaneses & deOliviera, 2007; Chubbuck & Zemblyas, 2008; Flores, 2007; Johnson, 2002; LaBoskey, 2006). Although these studies do not necessarily address teacher candidates’ experiences during teacher preparation, they look back on teacher candidates’ experiences during formal teacher preparation and the impact of that preparation on the first years of teaching. Together, these studies suggest that teacher education may have some power to strengthen teacher candidates’ beliefs, supporting them as they navigate the contradictions and complexities of becoming classroom teachers of record. For example, LaBoskey (2006) sought to determine what graduates of a teacher education program designed to prepare teachers who will work toward goals of equity and social justice were encountering in their schools and how they felt they were doing with regard to these aims and why. The five participants described quality education that was consistent with their teacher preparation program's goals of equity and social justice as well as holding high expectations for all learners that are responsive to individual, cultural, and linguistic strengths and needs. However, in an analysis of autobiographical narratives, Johnson (2002) found that formal teacher education had little influence on six teachers’ racial awareness.

Overall, these longitudinal qualitative studies explore the complexity of learning to teach for social justice. They suggest that learning to teach for social justice occurs as a confluence of factors including teacher candidates’ identity, previous experiences, the overarching goals and mission of the teacher preparation program, critical moments or dilemmas that occur in the program, support, coursework, and field experiences they
encounter. The qualitative methods allow for in-depth analysis of the process of learning to teach for social justice at the preservice and induction periods. These findings are complementary to Sleeter (2001), who notes that of the phenomenological studies that she reviewed, “the great bulk of research examined struggles involved in helping [teacher candidates] to develop awareness, insights, and skills necessary for effective teaching in multicultural contexts. Collectively, these articles convey a sense of immense struggles entailed, which is important to show” (p. 229). The longitudinal nature of these studies demonstrates individuals’ change, growth and difficulty experienced during the preservice period and into the first years of teaching, and allows for researchers and teacher educators in similar situations to reflect on and analyze their work with teacher candidates.

However, just as Shakman (2009) finds in her review of the literature, in this review, few studies focus on teacher candidates who are “representative” of the teacher education program, many of these qualitative case studies focus on exemplars, teacher candidates who entered the program with a strong commitment to teaching for social justice and who excelled throughout the program (e.g., Damico & Riddle, 2004; McQuillan, D’Souza, et al., 2009). Additionally, it is unclear how these individuals compare across studies, or to their peers in the same program. Sleeter (2001) notes that the majority of studies using primarily qualitative methods offer

… no basis for determining whether some strategies have a stronger impact than others, because strategies were not compared…[These] studies help us to ‘watch’
students struggle with issues and can provide ideas of how different professors [and programs] approach teaching, but they simply do not tell us which strategies best help preservice students become good teachers” (p. 227).

Understandably, across these longitudinal qualitative studies, there are no studies that examine an entire cohort of teacher candidates or the variation among a larger sample of teacher candidates’ beliefs and practices through the duration of the preservice period. Studies using quantitative could contextualize and support the findings of these thoughtful and methodologically sound qualitative studies.

Long-term, longitudinal studies using quantitative methods

Only one long-term, longitudinal quantitative study examined teacher candidates’ beliefs and experiences at different points in time, from program entry through the first year of teaching (Enterline, Cochran-Smith, Ludlow & Mitescu, 2008). Longitudinal studies that use quantitative methods are used to examine the extent to which programs are meeting stated goals, and “might influence policy by documenting a consistent impact of a strategy, intervention of type of program” (Sleeter, 2001, p. 222).

As part of the work of the Boston College Evidence Team, we (Enterline, et al., 2008) measured prospective and current teachers’ beliefs using the Learning to Teach for Social Justice-Beliefs (LTSJ-B) scale (Ludlow, Enterline, & Cochran-Smith, 2008). In this study, we assumed that teaching for social justice is a legitimate and assessable outcome of teacher education, and that a standardized instrument can measure a complex construct such as teacher candidates’ beliefs about teaching for social justice.
Specifically, we used the Rasch model to compare multiple cohorts of teacher candidates’/graduates’ scores on the LTSJ-B scale at entry into the program, graduation, and after one year of teaching. We found that graduating teacher candidates’ scores on the LTSJ-B scale were significantly higher than those of entering teacher candidates. In addition, higher scores were maintained into the first year of teaching. Moreover, the Rasch analyses provided evidence of individual response to particular items. Specifically, at graduation, fewer teacher candidates were “uncertain” about their beliefs and were more likely than at entry to endorse scale items consistent with a social justice stance.

This long-term, longitudinal quantitative study examined teacher candidates’ beliefs about teaching for social justice, provided sound psychometric evidence about the measures, and employed sophisticated statistical techniques to examine a complex construct. The Rasch model employed in the Enterline, et al., (2008) study, and further discussed below, provides an in-depth look at the level of endorsement for the overall scale and each item at the cohort level and individual level. However, while we examined difference across time, we measured “change” from the time of graduation into the first year of teaching. In other words, the cohort of entering teaching candidates was not the same as the cohort whose responses were analyzed at graduation and after their first year of teaching.

A longitudinal study examining the same cohort at entry into and again at graduation from the program could provide greater evidence of change in beliefs. Furthermore, while we examined the overarching themes of the teacher preparation
program, we did not examine the complex relationship among teacher candidates’ identity, perceptions, previous experiences, or experiences while in the program and how these factors relate to their subsequent beliefs about teaching for social justice.

Across the studies in this review of the literature, it is clear that learning to teach for social justice is a complex and nuanced process. Learning to teach for social justice is often a struggle and occurs when teacher candidates’ identities, perceptions, and experiences prior to and during formal teacher preparation interact with their beliefs about teaching for social justice.

However this research is fragmented and lacks coherence (Shakman, 2009). The short-term studies identify practices and experiences that may contribute to teacher candidates’ learning, including targeted assignments, courses, and field experiences. In addition, they suggest that teacher candidates differ in how they develop, strengthen, or (don’t) change beliefs toward teaching for social justice. Yet, these short-term interventions are examined in isolation and fail to connect these experiences and beliefs to the overall teacher preparation experience.

Through a wealth of data, many longitudinal qualitative studies present the difficulty of untangling the learning to teach process and identify many factors that may contribute to how individuals learn to teach for social justice in formal teacher preparation and in the first years of teaching. These studies specifically focus on a few teacher candidates, providing complex and nuanced descriptions of the processes that take place in learning to teach for social justice. However, the researchers often identify
“exemplars” or, at times, fail to locate the study participants in the larger context of their cohort. In addition, by their very nature, these studies do not seek to address the question of whether a cohort of teacher candidates’ beliefs changes over the course of a specific formal teacher preparation program or other longitudinal intervention.

Along these lines, Grant and Agosto (2008) conclude in their review of the literature on teacher education for social justice that most of these studies are “silent about the assessment of social justice in teacher education programs” (p. 195). While assessment and outcomes are discussed in a few studies (e.g., Cochran-Smith, Shakman et al., 2009; Shakman, 2009), I could not locate any studies that examine an entire cohort from program entry through graduation. Furthermore, while scholars recognize the complexity of measuring outcomes of teacher education for social justice, and call for multiple methods and forms of evidence, the overwhelming majority of these studies used primarily qualitative methods and methodologies. Accordingly long-term, longitudinal quantitative studies can serve as a useful tool to address these questions (Sleeter, 2000).

The lack of longitudinal quantitative studies may be a function of the difficulty of measuring and assessing learning to teach for social justice using quantitative methods. In particular, as discussed below, it is very difficult to develop psychometrically sound instruments that measure complex theories, such as teacher education for social justice. However, rigorous, quantitative studies have the power to examine learning to teach and
teacher education for social justice from a broader perspective, while focusing on outcomes of teacher education for social justice.

This dissertation draws on a larger sample (two cohorts), uses established, psychometrically sound instruments, and employs sophisticated quantitative methods, specifically the Rasch rating scale model and multiple regression analyses, to address this hole in the research base on teacher education for social justice. Furthermore, guided by the quantitative criticalist perspective, this dissertation seeks to examine some of the many complicated factors that play a role in the development and change in teacher candidates’ beliefs across time.

**Item Response Theory and the Rasch model**

This longitudinal study used Item Response Theory (IRT) models to examine teacher candidates’ beliefs about teaching for social justice, as measured by the Learning to Teach for Social Justice-Beliefs (LTSJ-B) scale, at the time they entered the Boston College teacher education program, their freshman year, and again when they graduated, at the end of their senior year.

IRT models are one of the primary measurement models in psychometrics. IRT models are often defined in contrast to other measurement models used in psychometrics, specifically, Classical Test Theory (CTT) models. Unlike CTT approaches that focus on overall total scores (i.e., observed total score on a given test or survey, assumed to be composed of a theoretical true score and error), IRT models focus on individual items. At the core of IRT theories is a mathematical model that describes the relationship between...
how individuals of “different ability levels” should respond to items of different “difficulty levels” that make up an underlying construct or latent trait.

IRT models are differentiated by the number of item-specific characteristics associated with each model. Specifically, one-parameter IRT models (Rasch models) take into account item difficulty, two-parameter IRT models take into account item difficulty and item discrimination, and three-parameter models take into account item difficulty, item discrimination, and pseudo-guessing (Ludlow, Enterline & Cochran-Smith, 2008).

In this dissertation, I used a one-parameter IRT model, specifically the Rasch rating scale model (Andrich, 1988; Wright & Masters, 1982) to calculate a person’s “ability” estimate at each administration of the LTSJ-B scale. In other words, I examined teacher candidates’ level of endorsement of or commitment to specific practices related to teaching for social justice. The one parameter Rasch model assumes that item difficulty is the only item characteristic influencing student responses. All items are assumed to be equally discriminating (Hambleton, Swaminathan & Rogers, 1991; Waugh, 2003).

The Rasch rating scale model was chosen for this dissertation for several reasons. First, as further detailed in Chapter 3, the LTSJ-B scale was constructed under the principles of the Rasch model (Ludlow, et al., 2008). Specifically, Ludlow, et al. (2008) argue,

If one believes that a variable can be operationally hypothesized in a continuous and hierarchical manner, then one can assert that tasks (items) can be created that represent those levels of the variable. Furthermore, if these items can be successfully constructed, then there is opportunity to both conceptually and
literally locate and position a person in relation to that variable and then describe
the types of items, or tasks, that are most closely associated with that person’s
score (which defines that person’s position or location) on the instrument (the
variable being measured) (p. 196).

In other words, in the construction of the LTSJ-B scale, it was assumed that commitment
to or beliefs about teaching for social justice (the variable of interest) could be
operationalized in terms of a hierarchical continuum of statements from simpler or easier
to endorse teaching practices to more controversial, complex, or difficult to endorse
practices of teaching for social justice. Accordingly, Ludlow (2008) suggests that these
statements could be ordered up a “ladder,” from easier to more difficult-to-endorse items.
As a result, individuals with different levels of commitment to or beliefs about teaching
for social justice would endorse items in different ways along this continuum.

In addition, Brentari and Golia (2008) note that, when the data fit the Rasch
model, the model “produces measures of the latent trait which are not dependent on the
measurement instrument or the subjects that take part in the survey” (p. 46). Accordingly,
the Rasch model was chosen for this dissertation as a confirmatory test of the LTSJ-B
scale (Ludlow, et al., 2008). Furthermore, Ludlow (2008) argues, “the Rasch
measurement model has the potential to serve as a powerful way…of understanding what
a person’s score means not only at a given point in time on that variable but also what it
means to change location on that variable over time” (p. 9). This dissertation examined
teacher candidates’ beliefs at specific points in time, as well as across time.
The Rasch rating scale model is appropriate for Likert-scale instruments, such as the LTSJ-B scale, with defined scoring categories that are not dependent on specific item characteristics (Ludlow, et al, 2008). For example, on the LTSJ-B scale, all of the items are scored on a 1-5 scale, from “strongly disagree” to “strongly agree.” The Rasch rating scale model assumes that the category scores are spaced or “equidistant” across items (Andrich, 1997). It is assumed that moving from “strongly disagree” to “disagree” on one item involves the same change in belief as moving from “strongly disagree” to “disagree” on another item on the scale. In other words, the category thresholds are set from one item to the next (Bond & Fox, 2007). Furthermore, the Rasch rating scale model converts raw scores to linear measures scores along a unidimensional continuum. This conversion allows the researcher to meet the assumptions of parametric tests (Bond & Fox, 2007; Wright & Masters, 1982; Wright & Stone, 1989). The Rasch rating scale model is described in further technical detail in Chapter 3.

The Rasch model has been used to measure human characteristics including functional ability (e.g., Coster, Haley, Ludlow, Andres & Ni, 2004; Coster, Ludlow & Mancini, 1999), anxiety toward tests (Ludlow & Guida, 1991), and job satisfaction (Ludlow & Lunz, 1998). In addition, as Berends (2006) suggests, in recent years the Rasch model has been gaining popularity in educational survey research (e.g., Donnelly & Boone, 2007; Enterline, et al., 2008; Funk, Fox, Chan & Curtiss, 2008; Johnson, Green & Kluever, 2000; Ludlow, et al., 2008; Ren, Bradley & Lumpp, 2008; Shireen Desouza, Boone & Yimaz, 2004; Shuler, 2010; Waugh, 2003). In particular, several of these

7 Or, in the case of reverse-scored items on the LTSJ-B scale, from “strongly agree” to “strongly disagree”
studies applied the Rasch rating scale model on Likert-scale attitudinal data (e.g., Enterline, et al., 2008; Evans, Brauchie, Haq, Stecker, Wong & Shapiro, 2007; Ren, et al., 2008; Shireen Desouza, et al., 2004; Shuler, 2010).

Shuler (2010) offers an example of applying the Rasch model to investigate undergraduate students’ involvement in civic engagement activities as well as their development of attitudes toward civic engagement from their freshman year to senior year. Specifically, Shuler used the Rasch rating scale model “to portray the structure of the involvement in activities scale (from common to rare) while concurrently identifying students’ locations along the scale…The involvement and attitudinal sophomore, junior, and senior administrations of the [survey were used to] to determine if differences emerged in students’ involvement rates and civic dispositions over time” (p. 73-74). Through the Rasch model, Shuler investigated the range of beliefs from a particular cohort at one point in time and change in beliefs across time.

In addition, Ludlow, et al., (2008) and Enterline, et al., (2008) applied the Rasch rating model to the LTSJ-B scale to measure teacher candidates’ beliefs about teaching for social justice at different points in time. This dissertation builds on the work of Ludlow, et al., (2008) and Enterline, et al., (2008) and applied the Rasch rating scale model to the LTSJ-B scale to measure teacher candidates’ beliefs about teaching for social justice in terms of individual responses to items on the scale as well as change across time. The methods and analyses are further discussed in Chapter 3.
CHAPTER THREE: METHODS

Chapters One and Two described the problem, provided the theoretical framework and methodology, and situated this dissertation in the larger body of conceptual and empirical literature on teacher education for social justice. In this chapter, I present the context and location of the study, sample under investigation, data collection, instrumentation, research design, and analyses.

Context

This dissertation builds on the work of the Boston College Teachers for a New Era Evidence Team (ET) and, in particular, the work of the Survey Team. In 2003, Boston College was chosen by the Carnegie Corporation of New York as one of 11 institutions to receive a five-year grant as part of the Teachers for a New Era initiative. Specifically, the university was tasked with dramatically improving teacher preparation in the university setting. As part of this endeavor, the ET was established to examine the impact of the teacher education program at Boston College with a focus on student learning.8

The ET began by reviewing research on teacher education and subsequently developed a conceptual framework to examine the complex relationship among teacher candidates’ prior experiences and beliefs, their learning experiences, teaching practices,
and beliefs while in and at the completion of the BC teacher preparation program, and their beliefs and practices once they become classroom teachers of record. Within this framework, all of these interrelated pieces interact within the larger classroom, school, community, university, and accountability contexts. Ultimately, these factors contribute in different ways to the outcomes of teacher education that include student learning and development, teacher retention, and teaching for social justice (Cochran-Smith and the BC TNE Evidence Team, 2009).

From this conceptual framework, the ET employed a “dialectical mixed methods” approach (Greene & Caracelli, 2003) to develop a portfolio of quantitative, qualitative, and mixed methods studies. Following Greene and Caracelli, Cochran Smith and the Boston College Evidence Team (2009) elaborate on this approach, “[D]ifferent research designs and approaches are regarded as providing valuable, but always partial, perspectives on the topic under investigation, and the tensions created by studies’ differing assumptions and ways of knowing are regarded as generative of richer understandings rather than incompatible approaches” (p. 461). Specifically, the studies in the ET portfolio include a survey study discussed below; a set of longitudinal qualitative case studies investigating teacher candidates’ entering characteristics, their experiences in the teacher education program, teaching beliefs and practices, and their students’ learning; a comparison study of teaching practices and student outcomes of two pathways to teaching; an inquiry study examining teacher candidates’ approaches to inquiry-into-practice; an investigation of teacher candidates’ performance on a capstone performance assessment; and a cross-sectional, value-added assessment of student standardized
assessment scores linked to their teachers who are graduates of the BC teacher preparation program.

In addition, the ET drew on several of these studies to examine teacher retention (Cochran-Smith, Cannady, McEachern, Mitchell, Piazza, Power & Ryan, 2010; Cochran-Smith, McQuillan, Barnatt, D’Souza, Jong, Shakman, Terrell, Lam, Gleeson & Mitchell, 2010; Ludlow, Pedulla, Cannady, Mitescu, Enterline, Chappe, Holder, Cantor, Loftus, McMahon, 2010) and teaching for social justice as an outcome of teacher education (Cochran-Smith, Reagan, Shakman, and the Boston College Evidence Team, 2009). (See Appendix B for the conceptual framework and portfolio of studies.)

The Survey study is a longitudinal study that seeks to examine teacher candidates’ and graduates’ experiences, perceptions, beliefs and reported practices before, during, and after the teacher preparation program (Ludlow, Pedulla, Enterline, Cochran-Smith, Loftus, Salomon-Fernandez & Mitescu, 2008). As a research assistant and doctoral fellow, I was a member of both the Survey Team and larger ET. Specifically, together with the other members of the Survey Team, I was involved in developing and maintaining a comprehensive survey system to assess the experiences and learning of teacher candidates from the day they enter the program to at least three years after they graduate (Ludlow, Mitescu, Pedulla, Cochran-Smith, Cannady, Enterline, & Chappe, 2010; Mitescu, Ludlow, Pedulla, Cochran-Smith, Cannady, Chappe, Hu, Enterline, Loftus & Cantor, 2009). As a result, I participated in all aspects of the study that included developing surveys and recruiting participants, as well as collecting, cleaning, and analyzing data. The research questions, data, and analyses in this dissertation build on
this work and were influenced by the work of the larger Survey and Evidence Teams. Additionally, this dissertation fits within the larger ET portfolio.

**Location of the research**

This study takes place at Boston College, a highly selective Jesuit university of approximately 15,000 students, 9,000 who are enrolled as full-time undergraduates (Boston College, 2010a). Guided by its Jesuit Catholic tradition, Boston College seeks to unite “high academic achievement with service to others” (Boston College, 2010b). The University’s philosophy aligns with the Lynch School of Education’s commitment to working toward “the goals of social justice,” and the Department of Teacher Education, Curriculum, and Instruction’s overarching theme of promoting social justice. In a recent accreditation brief, the department described teaching for social justice in this way:

We conceptualize learning to teach for social justice as a complex process that happens over time, rather than one that is completed during the preservice preparation period…We see the bottom line of teaching for social justice as improving [students’] learning—academic learning, social/emotional development, critical thinking, and democratic skills and values…and enhancing their life chances…To support these learning goals, teachers must possess particular kinds of knowledge, interpretive frameworks, classroom practices and skills, opportunities to work in learning communities…as well as growing awareness of the larger connections of teaching to service, advocacy for pupils and their families, activism, and larger movements for social change and social justice (Boston College, 2009, p. 6).
This overarching theme is one of five central teacher education themes that also include “constructing knowledge,” “inquiring into practice,” “meeting the needs of diverse learners,” and “collaborating with others.”

This dissertation focuses specifically on undergraduates enrolled in the teacher education program. Undergraduate teacher candidates in this study had the option to pursue majors in early childhood education, elementary education, or secondary education. They followed a program of study that included core university courses, foundational courses (e.g., “Learning and Curriculum in the Elementary School”), methods courses (e.g., “Teaching Mathematics and Technology”), human development courses (e.g., “Child Growth and Development”), and courses designed to prepare teachers to work with diverse learners (e.g., “Working with Special Needs Students”).

In addition, undergraduate teacher candidates participated in a variety of field experiences throughout the teacher education program. Specifically, they completed three pre-practicum experiences over three semesters, during which time they spent one to three days a week observing teachers, teaching lessons, and reflecting on and discussing problems of practice. During their pre-practicum experiences, elementary education majors were required to work one-on-one with an English language learner. During their senior year, teacher candidates enrolled in a semester-long full practicum (student teaching). In their full practicum, teacher candidates spent five days a week gradually assuming greater responsibility in the classroom. In conjunction with the full practicum,

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9 Participants in this study had the option to major in Early Childhood, Elementary, or Secondary Education. Teacher candidates enrolled in the Lynch School of Education after 2006 no longer have the option to major in Early Childhood Education (Boston College, 2009).
all undergraduate teacher candidates enrolled in a semester-long inquiry seminar where they developed a meaningful question related to teaching and carried out a research study, or inquiry project, designed to inform practice. In addition, undergraduate teacher candidates also completed a capstone performance assessment, the Pre-Service Performance Assessment-Plus (PPA+), providing evidence that they meet both the school and state standards for licensure. Although this study does not examine how social justice was discussed or presented in specific instances, it is the teacher education program’s intention to integrate the overarching social justice theme across the undergraduate experience in courses, practica, and assignments.

Population and sampling

Undergraduate teacher candidates from the graduating classes of 2009 and 2010 enrolled in the Boston College Lynch School of Education were sampled to participate in this study. Specifically, non-transfer, teacher education majors were eligible to participate. The teacher candidates selected for this study fulfilled all of the requirements for graduation, including completion of coursework and practicum experiences. In addition, all participants were endorsed for Massachusetts state licensure by the Boston College teacher education program. Furthermore, all participants in this study completed the entry and exit surveys, administered at the time of entry into the program and at graduation, respectively, as a census of all teacher candidates enrolled in the Lynch School of Education.

This group of undergraduates was studied for several reasons. First, this group is comprised of the first two cohorts of undergraduate teacher candidates at Boston College
who had the opportunity to respond to the entry and exit surveys, providing data about their experiences prior to and during the program, perceptions at the beginning and end of the program, and beliefs about teaching for social justice at the beginning and end of the program. Second, undergraduates were chosen because undergraduate teacher candidates enroll in a four-year teacher preparation program, and therefore have four years of experiences in the formal teacher education program. Third, as discussed in the review of the literature, I could not locate any longitudinal studies that examine intact cohorts of undergraduate teacher candidates’ beliefs about teaching for social justice at the time they enter a teacher education program and again at graduation. Finally, two cohorts were chosen to replicate and verify findings across cohorts.

In the first cohort of non-transfer undergraduate teacher education majors who graduated in the class of 2009, 78 out of 85\(^\text{10}\) (92 %) participants responded to both the entry and exit surveys. Of the 78 teacher candidates who responded to both surveys, all participants gave consent for their responses to be used for evaluation purposes. However, on the 2005 entry survey and 2009 Exit Surveys, only 74 and 76 participants, respectively, consented for their responses to be used for research purposes on the individual surveys. As a result, across both surveys, 72 participants gave consent for their responses to be used for research purposes. Accordingly, the effective sample size for the first cohort (2009 cohort) is 72 participants.

\(^{10}\)For the class of 2009, 98 out of the 99 undergraduate teacher candidates (99 %) enrolled in the Lynch School of Education responded to the 2009 Exit survey. Of the undergraduate students who responded to the Exit survey, 21 respondents either transferred into the teacher preparation program after their first year (N=11), or were secondary education minors (N=3). For purposes of this study, only non-transfer undergraduate teacher education majors who responded to at least one survey are included.
In the second cohort of non-transfer undergraduate teacher education majors who graduated in the class of 2010, 66 out of 71\textsuperscript{11} (93 \%) responded to both the entry and exit surveys. Of the 66 teacher candidates who responded to both surveys, all participants gave consent for their responses to be used for evaluation purposes. However, on the 2006 entry and 2010 exit surveys, only 65 and 63 participants, respectively, consented for their responses to be used for research purposes on the individual surveys. As a result, across both surveys, 62 participants gave consent for their responses to be used for research purposes. Accordingly, the effective sample size for the second cohort (2010 cohort) is 62 participants.

In the first cohort (2009 cohort), there are 10 males (13.9\%), and 62 females (86.1\%). At the time of graduation, all participants were of traditional age, either 21 (36\%) or 22 (64\%) years old. In addition, 63 participants (87.5\%) identified themselves as White, 6 participants (8.3\%) identified themselves as Asian American, and 3 (4.2\%) identified themselves as Latina/o. The participants were also spread across majors. Specifically, 5 participants (6.9\%) were Early Childhood Education majors, 38 (52.8\%) were Elementary Education majors, and 29 (40.3\%) were Secondary Education majors.

The demographic characteristics of the second cohort (2010 cohort) are similar to the first cohort. In the second cohort, there are 7 males (11.3\%), and 55 females (88.7\%). At the time of graduation, all participants were of traditional age, either 21 (53.2\%) or 22

\textsuperscript{11}For the class of 2010, 92 out of the 92 undergraduate teacher candidates (100 \%) enrolled in the Lynch School of Education responded to the 2010 Exit survey. Of the undergraduate students who responded to the Exit survey, 21 respondents transferred into the teacher preparation program after their first year. For purposes of this study, only non-transfer undergraduate teacher education majors who responded to at least one survey are included.
(46.8%) years old. In addition, 57 participants (91.9%) identified themselves as White, 4 participants (6.5%) identified themselves as Asian American, one (1.8%) self-identified as identified as Latina/o, and one (1.8%) self-identified as Black. The participants were also spread across majors. Specifically, six participants (9.7%) were Early Childhood Education majors, 36 (58.1%) were Elementary Education majors, and 20 (32.3%) were Secondary Education majors. Table 3.1 presents the demographic characteristics of the two cohorts.

Table 3.1. Demographic characteristics of the 2009 and 2010 cohorts

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Gender</th>
<th>Race</th>
<th>Teacher Education Major</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>AHANA</td>
</tr>
<tr>
<td>2009</td>
<td>10</td>
<td>62</td>
<td>9</td>
</tr>
<tr>
<td>(n=72)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>7</td>
<td>55</td>
<td>6</td>
</tr>
<tr>
<td>(n=62)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined</td>
<td>17</td>
<td>117</td>
<td>15</td>
</tr>
<tr>
<td>(n=134)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Given the focus on one institution, this sample may be generalized to the general population of undergraduate, non-transfer teacher candidates at Boston College. Specifically, the two cohorts are representative of other non-transfer undergraduate teacher candidates, as the selection and admissions processes have not changed since 2005 when the first cohort was enrolled. However, while generalizations would be limited, this sample is representative of undergraduate teacher candidates enrolled in private, highly selective four-year social-justice oriented teacher preparation programs across the United States. Specifically, the vast majority of teacher candidates in this study
share demographic characteristics of the larger body of entering teachers (Zumwalt & Craig, 2008). Accordingly, as Keppel and Wickens (2004) note, “[S]tatistical methods allow us to generalize from our sample to an idealized population from which it could have been sampled, and the extra statistical generalization lets us conclude that this hypothetical population is similar to the actual population that we want to study” (p. 10). For that reason, the results of this research can inform policy and practice beyond Boston College to highly selective four-year undergraduate teacher education programs with explicit missions to prepare teachers to teach for social justice.

**Instrumentation**

In this study, data were drawn from three primary sources. Specifically, survey data were drawn from the entry and exit surveys (Ludlow, Pedulla, Enterline, Cochran-Smith, Salomon-Fernandez & Mitescu, 2008), both of which are part of a larger survey system in the Boston College Teacher Education System of Assessment (TESA) that assesses teacher candidates’ and graduates’ experiences and learning from the day they enter the program to at least three years after they graduate (Ludlow, et al., 2010; Mitescu, et al., 2009). Background and demographic information were drawn from the larger Boston College and Lynch School of Education databases. Figure 3.1 presents the data used in this study collected from multiple instruments and databases.
**Entry survey**

In this study, data from the entry surveys were used to examine teacher candidates’ experiences prior to entering the teacher education program, perceptions of successful teaching, and their beliefs about teaching for social justice at the beginning of their teacher education program. All undergraduate teacher candidates in this study participated in the entry survey, which was developed as part of the BC TNE initiative and consists of 109 items. Specifically, the entry survey was designed to assess teacher candidates’ entering characteristics, previous experiences, reasons for entering the teacher preparation program, perceptions of good teaching, and expectations of the teacher education program (Ludlow, et al., 2008). Most items on the survey are Likert-scale items on a 1-4 or 1-5 scale. Factor analyses (using principal axis factoring with Varimax and Oblimin rotations) were conducted to assess the conceptual groupings of the
items. From these analyses, four scales were identified: what it takes to be a successful teacher, goals and expectations of the teacher education program, teaching confidence, and beliefs about social justice. Across administrations, analyses have shown that the entry survey has sound psychometric properties (Ludlow, et al., 2008). Specifically, across three administrations (2005, 2006, 2007), reliability estimates on the four scales, as measured by Cronbach’s alpha, range from 0.88-0.90 on the “Goals for teacher preparation” scale, 0.78-0.80 on the “Successful teacher” scale, 0.90-0.93 on the “Teaching confidence” scale, and 0.77-0.81 on the Learning to Teach for Social Justice-Beliefs (LTSJ-B) scale. The complete entry survey can be found in Appendix C.

Exit survey

Data from the exit surveys were used to assess teacher candidates’ perceptions of preparedness, experiences in the program, and beliefs about social justice at the time of graduation. All participants in this study responded to the exit survey before graduating from the teacher education program. The exit survey was designed to assess teacher candidates’ perceptions of preparedness and satisfaction with various aspects of the teacher education program (Ludlow, et al., 2008) and consists of 100 items. Factor analyses (using principal axis factoring and both Oblimin and Varimax rotation) indicated that the items on the exit survey cluster in four scales: preparation for classroom teaching; teaching diverse learners; program evaluation; and beliefs about teaching for social justice. Analyses of four administrations have shown that the exit survey also has sound psychometric properties, with strong internal consistency, as measured by Cronbach’s alpha ranging from 0.94-0.95 on the “preparation for classroom teaching”
scale, 0.88-0.90 on the “Teaching diverse learners” scale, 0.88-0.91 on the “BC evaluation” scale, and 0.71-0.78 on the LTSJ-B scale.

In addition, three open-response items pertaining to teaching for social justice were added to the 2009 exit survey for this study. These items were designed to provide further information about teacher candidates’ beliefs about social justice and the experiences in the teacher education program that may or may not have influenced their beliefs. The questions are:

- How would you explain to someone else the idea of teaching for social justice? What does it mean?
- How did your beliefs about teaching for social justice change while you were in the teacher education program?
- What specific aspects of the teacher education program influenced your beliefs about teaching for social justice?

The complete exit survey can be found in Appendix D.

**Learning to Teach for Social Justice-Beliefs scale**

As noted above, the LTSJ-B scale is administered on both the entry and exit surveys for the explicit purpose of measuring beliefs about teaching for social justice across time (Ludlow, Enterline & Cochran-Smith, 2008). The LTSJ-B scale was designed as part of the BC TNE initiative by members of the Evidence Team under the assumption that teaching for social justice is a legitimate and measurable outcome of teacher education. The 12 Likert-type items on the scale were informed by the conceptual work
on teaching for social justice of Cochran-Smith (1999, 2004) and others, and reflect
teaching practices and interpretive frames that are consistent with a social justice stance
discussed in detail in Chapter 2. As we (Enterline, Ludlow, Cochran-Smith, & Mitescu,
2008) have described elsewhere,

The particular items that make up the LTSJ-B scale were chosen to reflect the
idea of teaching as agency for change and to encompass a number of key ideas
about justice as both distribution of learning opportunities and outcomes and
recognition of the knowledge tradition and identities of multiple groups (Cochran-
Smith, in press); Fraser & Honneth, 2003). Key ideas include: high expectations
and rich learning opportunities for all [students]; an asset-based perspective on the
cultural, linguistic and experiential resources [students] and families bring to
school; the importance of critical thinking in a democratic society; the roles of
teachers as advocates and activists for change; challenges to the notion of a
meritocratic society; teaching as an activity that is related to teachers’ deep
underlying assumptions and beliefs about race, class, gender, disability, and
culture; and the idea that issues related to culture, equity, and race ought to be part
of what is speakable and visible in all aspects of the curriculum (p. 276)

As discussed in Chapter 2, the LTSJ-B scale was designed according to the
principles of Rasch measurement (Ludlow, et al., 2008; Enterline, et al., 2008).
Specifically, the ET conducted extensive reviews of the literature to define and articulate
concepts related to beliefs about teaching for social justice. In addition, the team
hypothesized that individuals would differ in terms of their commitment to and beliefs
about teaching for social justice and therefore could be measured along a continuum of varying commitment to teaching for social justice. Furthermore, the team conceptualized specific practices of teaching for social justice that would be more or less difficult to endorse and would also fall along a continuum of statements (items). The ET subsequently identified and piloted a pool of more than 200 items. From the resulting analyses, the ET selected a set of 12 items that make up the LTSJ-B scale (Ludlow, Enterline, et al., 2008).

After multiple administrations, the resulting Classical Test Theory (e.g., factor and reliability analyses) and Rasch Item Response Theory analyses confirm that the 12-item LTSJ-B scale is internally consistent, unidimensional, invariant across administrations, and defines a conceptually coherent continuum of statements from easier to endorse to more difficult to endorse (Enterline, et al., 2008; Ludlow, et al., 2008). Moreover, there is evidence to suggest that the teaching practices described in the LTSJ-B scale are understood in a similar manner across international settings (Ludlow, Enterline, O’Leary, Ell & Bonilla, 2010).

On the LTSJ-B scale, respondents are asked to rate the level of agreement (e.g., “strongly agree,” “agree,” “uncertain,” “disagree,” “strongly disagree”) with statements pertaining to teaching for social justice. Five of the items are “positively worded” indicating that the preferred response is “strongly agree.” For example, one item asks respondents to rate their level of agreement to the following statement: “Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions,” to
which the preferred response is “strongly agree.” Seven items are “negatively worded” or “reverse-coded” indicating that the preferred response is “strongly disagree.” The statement, “It’s reasonable for teachers to have lower classroom expectations for students who don’t speak English as their first language” is an example of a reverse coded item, where “strongly disagree” is the preferred response. The items are scored on a 1 (low) to 5 (high) scale based on the extent to which teacher candidates endorse the preferred (or correct) response. Figure 3.2 presents the 12 items on the LTSJ-B scale.

**Figure 3.2. Learning to Teach for Social Justice—Beliefs (LTSJ-B) scale**

| Respond to the following statements regarding your beliefs about teaching. |  
|---|---|  
| 1 | An important part of learning to be a teacher is examining one’s own attitudes and beliefs about race, class, gender, disabilities, and sexual orientation.  
| 2 | Issues related to racism and inequity should be openly discussed in the classroom.  
| 3R | For the most part, covering multicultural topics is only relevant to certain subjects areas, such as social studies and literature.  
| 4 | Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.  
| 5R | The most important goal in working with immigrant children and English language learners is that they assimilate into American society.  
| 6R | It’s reasonable for teachers to have lower classroom expectations for students who don’t speak English as their first language.  
| 7 | Part of the responsibilities of the teacher is to challenge school arrangements that maintain societal inequities.  
| 8 | Teachers should teach students to think critically about government positions and actions.  
| 9R | Economically disadvantaged students have more to gain in schools because they bring less into the classroom.  
| 10R | Although teachers have to appreciate diversity, it’s not their job to change society.  

Whether students succeed in school depends primarily on how hard they work.

Realistically, the job of a teacher is to prepare students for the lives they are likely to lead.

*a* Likert response categories: Strongly Disagree=1, Disagree=2, Uncertain=3, Agree=4, Strongly Agree=5

*b* R: denotes the items were reverse scored.

While the LTSJ-B scale is a powerful, established, and psychometrically sound instrument (Enterline, et al., 2008; Ludlow, et al., 2008; Ludlow, et al., 2010), this scale does not claim to represent all of the complex and contradicting ideas related to teaching and teacher education for social justice (Enterline, et al., 2008). In particular, this scale purports to measure only beliefs about teaching for social justice. It does not measure how these beliefs moderate or play out in terms of teaching practice, relationships with members of the broader school and surrounding community, activism, or student learning. In addition, although the items on the LTSJ-B scale are consistent with the conceptual framework and theories of teacher education for social justice outlined in Chapter 2, this scale represents only a small sample of the universe of items that could be used to assess beliefs about teaching for social justice. As we (Enterline, et al., 2008) have previously argued, “[W]e regard the LTSJ-B scale as telling only a part of the story about learning to teach for social justice as an outcome of teacher education, and it should be understood in terms of its limited focus on beliefs” (p. 276).
Demographic information on the participants in this study was drawn from the Boston College and Lynch School of Education databases. Specifically, data on participants’ year of graduation, undergraduate status, teacher education major, and race/ethnicity were pulled from these databases.

**Research Design**

The design of this study is a modified version of the one group pre-test, post-test design (Shadish, Cook & Campbell, 2002). Specifically, in this study, participants were administered a pre-test, the LTSJ-B scale, upon entering the program. At the end of the program, participants were administered a post-test, again the LTSJ-B scale. In between, teacher candidates participated in a “treatment,” the BC teacher preparation program. As presented below, a single observation is taken on the participants of the 2009 cohort ($O_1$), followed by a treatment ($X$), followed by a single observation following the treatment ($O_2$). In this study, the design is repeated for the second cohort of individuals, the 2010 cohort.

*Figure 3.3. Two-cohort research design*

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Research Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>$O_1$ LTSJ-B Entry, $X_{BC}$ teacher preparation, $O_2$ LTSJ-B Exit</td>
</tr>
<tr>
<td>2010</td>
<td>$O_1$ LTSJ-B Entry, $X_{BC}$ teacher preparation, $O_2$ LTSJ-B Exit</td>
</tr>
</tbody>
</table>

Shadish, Cook and Campbell (2002) suggest that the longitudinal of this design allows “examination of how effects change over time” (p. 257).
However, Shadish and colleagues (2002) also note that the lack of control group in the design provides “weak information about the counterfactual inference concerning what might have happened to participants had the treatment not occurred” (p. 108). Specifically, Shadish et al., argue that although scores on the pre-test occur before the intervention, and post-test scores follow the intervention, there is not sufficient evidence that a difference in scores is a result of the intervention. Rather, it may be a function of threats to internal validity such as maturation or history, where participants may have been exposed to other treatments between the pre- and post-test. In other words, there is no way to make a causal claim that, if teacher candidates’ beliefs about social justice are stronger at the time of graduation than at the point of entry, the teacher preparation program was effective in changing them. To address this concern, Shadish et al. (2000), recommend additional context-specific information that rules out other implausible alternative explanations.

Furthermore, this research design is both exploratory and theory-driven. As we have discussed elsewhere,

Theories provide broad ways of understanding teaching and the general circumstances that may influence a person to become a teacher and then stay or leave the profession. Individual scales and items, however, are the crude tools by which we try to operationalize those circumstances. Given the extraordinary lack of consistency in the instruments used by researchers to study teaching, it is unrealistic, if not impossible, to propose a theory-driven hypothesis about every type of statistical relationship that might be tested…
…The point, then, is to work towards a strong and defensible final model but to do it in a series of stages that start simply and become increasingly more complex based on combinations of theory-driven and exploratory analyses throughout the course of the project. (Ludlow, Pedulla, et al., 2010, p. 21-22)

The replicated design of this study across cohorts provides additional support about the generalizability of this study’s findings (Wallen & Fraenkel, 2001). As Kerlinger and Lee (2000) argue, “Replication is always desirable, even necessary…It can and should mean testing empirical implications of theory—interpreting ‘theory’ broadly—in similar and dissimilar situations” (p. 570).

Finally, after determining the similarity between the two cohorts, the cohorts were collapsed, and the analyses were replicated on the combined cohorts. These analyses, provided the basis for interpretation of the relationship between candidates’ experiences, perceptions, and beliefs about teaching for social justice.

**Quantitative and qualitative analyses**

This study addressed the overarching research question, “*What is the relationship among undergraduate teacher candidates’ experiences, perceptions, and their subsequent beliefs about teaching for social justice?*” and the following sub-questions:

1. *At the time of entry into the program, what are teacher candidates’ beliefs about teaching for social justice? What prior experiences and perceptions about teaching are related to their subsequent beliefs about teaching for social justice?*
2. **At the time of graduation from the program, what are teacher candidates’ beliefs about teaching for social justice? What experiences in the teacher education program, perceptions of preparedness, and satisfaction with the program are related to teacher candidates’ subsequent beliefs about social justice?**

3. **How do teacher candidates’ beliefs about teaching for social justice change and develop from the time of entry into the program to the time of graduation? What experiences and perceptions about teaching and preparedness are related to a change in beliefs about teaching for social justice?**

The analyses included a series of descriptive analyses (e.g., frequencies, means) that provide a picture of the participants in this study at various points in time. Given the nature of the data, I also conducted Rasch rating scale analyses (Andrich, 1988; Wright & Masters, 1982) to examine teacher candidates’ responses to the LTSJ-B scale at the time of entry into the program and at graduation, as well as to analyze their change and development over time. In addition, I conducted dependent means (paired) t-tests of the raw scores and logit estimates, to determine whether teacher candidates’ responses to the LTSJ-B scale changed significantly from the time of entry to graduation. To investigate the factors that are related to the participants’ beliefs about social justice, I built a series of multiple regression models. In addition, I analyzed responses to the open response questions to support the statistical analyses. In the following sections, I describe the descriptive, Rasch rating scale, multiple regression, t-test, and qualitative analyses that took place. In addition, I describe how these analyses relate to the specific research questions.
**Descriptive analyses**

As noted above, the purpose of the entry survey is to examine teacher candidates’ characteristics upon entering the teacher preparation program, their thoughts and beliefs about the teaching profession, and their beliefs and perceptions about the role of teachers. Responses from the entry survey also provide clues as to why teacher candidates chose Boston College and why they decided to enter the teaching profession (Ludlow, et al., 2008). Descriptive statistics, including frequencies, measures of central tendency (e.g., means), and dispersion (e.g., standard deviation), provided information about who the participants were and what they believed when they entered the program their freshman year.

In addition, the exit survey examines teacher candidates’ perceptions of preparedness, satisfaction with the teacher education program, beliefs about social justice, and plans for future teaching. Descriptive statistics, including frequencies, measures of central tendency (e.g., means), and dispersion (e.g., standard deviation) provided information about who the participants were and what they believed when they graduated from the BC teacher preparation program. Together, the descriptive statistics provided greater context of the teacher candidates, their experiences and perceptions at various points in time.

**Rasch Item Response Theory analyses**

Generally speaking, item response theory (IRT) models look at individual item difficulty estimates and person ability estimates. In this dissertation, I conducted Rasch
rating scale analyses (Andrich, 1988; Wright & Masters, 1982) that generated estimates of individual total scores on the LTSJ-B scale, as well as estimates of individual responses to each item on the scale. Specifically, in this study, scores on the LTSJ-B scale were converted to logit estimates, allowing for precise estimates of a person’s level of endorsement in comparison to the level of difficulty of endorsing each item on the scale. We (Enterline, et al., 2008) elaborate on this process,

With this [Rasch rating scale] model, Likert-scored responses are first summed to yield individual scores for individuals and items. Then the sums are converted into logits, which are statistical estimates that correspond to: a) an individual’s “level of belief” related to teaching for social justice, b) the average “difficulty” of endorsing each of the 12 items, and c) the difficulty of responding in successively higher-scored Likert response categories, which are referred to as “threshold estimates” (p. 276-277).

Statistically, the Rasch rating scale model (also known as the IRT one-parameter logistic model) is given by the following equation:

\[
\pi_{nx} = \frac{\sum_{i=1}^{m} e^{(\beta_n - (\delta_i + \tau_j))}}{\sum_{j=1}^{m} e^{(\beta_n - (\delta_j + \tau_i))}}
\]

where

- \( \pi_{nx} \) = probability of person, \( n \), responding in category, \( x \), to item, \( i \)
• $\delta$ = location or scale value of item $i$ on the variable
• $\tau$ = threshold parameter, or the location of the $k^{th}$ step in each item relative to that item’s scale value
• $x = 0, 1, \ldots, m$
• $e$ = a transcendental number whole value, rounded to three decimal places, is 2.718.

There are several basic assumptions that underlie the Rasch model, including the assumptions of latent traits, unidimensionality, item local independence, and item characteristic curves that represent the true relationship among the unobservable traits (abilities or commitment) and the observable variables (item responses) (Bond & Fox, 2007; Hambleton, Swaminathan & Rogers, 1991). If the data meet these assumptions and fit the Rasch model, then the higher a person’s ability (in this case, level of endorsement, commitment, or strength in beliefs about teaching for social justice), the higher the probability of responding correctly to, or endorsing, a particular item. Conversely, the higher the item difficulty (i.e., difficulty in endorsing more complex, controversial concepts pertaining to teaching for social justice) the lower the probability of that individual responding correctly to, or endorsing, the given item. If either the person ability or item difficulty odds ratios equal 1, then the logit estimate is 0, corresponding to “medium ability person estimate” or “medium item difficulty estimate.” In the Rasch model, when the person ability (level of endorsement) and item difficulty
(difficulty of endorsement) are equal, a person has a 0.5 (50%) probability of endorsing the item.

Following Enterline et al. (2008), logit scores for each administration (e.g., 2005 entry survey) were anchored on the estimates from the 2005 LTSJ-B Exit Survey undergraduate responses (N=110). Anchoring provided a common metric for comparing any growth or change in teacher candidates’ beliefs across previous analyses, cohorts, and time (Bond & Fox, 2007). The anchored 2005 exit survey’s LTSJ-B responses provided a measure of how much teacher candidates’ beliefs at the start of the program change and develop in relation to their beliefs at the end of the program. Previous analyses of the LTSJ-B scale suggest that the exit survey LTSJ-B scale estimates “form a clearer continuum” than the entry survey estimates (Ludlow, et al., 2008, p. 210). Accordingly, from both a measurement and theoretical perspective, it was justifiable to anchor on the exit survey estimates. The anchor estimates are presented in Appendix E.

At each administration of the LTSJ-B scale, I used WINSTEPS software (Wright & Linacre, 1998) to create “variable maps” that graphically depict the continuum of teacher candidates’ level of belief (or commitment) to teaching for social justice, in relation to the continuum of items located from easier to endorse to more complex, or difficult, to endorse. These maps provided construct validity evidence that the items on the scale represent a theoretically defensible and psychometrically sound continuum of beliefs pertaining to teaching for social justice (Enterline, et al., 2008; Ludlow, et al., 2008; Wright & Masters, 1982). Furthermore, these variable maps graphically depicted the range and variation of teacher candidates’ beliefs, in other words, where the teacher
candidates - as a cohort and as individuals - are located along the spectrum of responses to the 12 items on the scale. Figure 3.4, presents the variable map for the 2005 exit survey.

Figure 3.4. Rasch variable map for the anchor group (2005 exit survey)

To measure any change in teacher candidates’ beliefs about teaching for social justice over time, I examined the mean cohort estimates at the two time points - at entry into the teacher education program and again at graduation from the program.

Multiple regression analyses

The Rasch rating scale analyses examined teacher candidates’ beliefs about teaching for social justice at the time of entry into the program, at graduation, and over
time. The purpose of multiple regression is to introduce multiple variables to predict an outcome variable (Kerlinger & Lee, 2000). In this dissertation, the multiple regression analyses examined what, and to what extent, experiences and perceptions are related to teacher candidates’ beliefs about teaching for social justice at particular points in time and over time. The general equation of multiple regression is,

\[ \hat{Y} = a + b_1X_1 + b_2X_2 + \ldots + b_kX_k \]

, where

\[ \hat{Y} = \text{predicted score on the outcome variable} \]

\[ a = \text{constant (y-intercept)} \]

\[ X_1 = \text{a raw score on the first predictor} \]

\[ X_2 = \text{a raw score on the second predictor} \]

\[ b_1 = \text{partial regression coefficient associated with the first predictor} \]

\[ b_2 = \text{the partial regression coefficient associated with the second predictor} \]

\[ k = \text{subscript for the number of predictors entered into the equation} \]

To examine the relationships among teacher candidates’ experiences, perceptions, and beliefs about teaching for social justice, I first conducted the test of \( R^2 \) for each model. According to Pedhazur (1997), the test of \( R^2 \) investigates “whether the regression of \( Y \) on the independent variables taken together is statistically significant” (p. 105). In other words, the test of \( R^2 \) examines whether the variance accounted for in the overall model is statistically significant, or whether at least one predictor variable is statistically significant. Failing to reject the null hypothesis indicates that none of the regression coefficients are statistically different from zero and that the overall model is not statistically significant. The test of \( R^2 \) is given by the following f-ratio:
where

\[
F = \frac{R^2/k}{(1-R^2)/(N-k-1)}, \quad and
\]

\[
df = (k, N-k-1)
\]

\(k\) = number of independent variables

\(N\) = sample size

Specifically, the test of \(R^2\), tests the following null and alternative hypotheses:

\(H_0: \quad \rho^2 = 0\), or the overall model is not statistically significantly different from 0

\(H_1: \quad \rho^2 > 0\), or the overall model is statistically significantly greater than 0, or the overall model accounts for a proportion of the variance that is statistically significantly greater than 0.

Next, to test the effect of the predictor variables in the model, I conducted the test of the regression coefficients that examines the magnitude and effect of a particular regression coefficient, after removing variation attributable to the other predictor variables. If the predictor variables are highly intercorrelated, it may turn out that none of the regression coefficients, when tested separately, are statistically significant. The test of the regression coefficients is represented by the following t-test:

\[
t_{bi} = \frac{b_{yi2}}{s_{b, yi2}}, \quad for \ each \ independent \ variable.
\]

The test of the regression coefficients tests the following null and alternative hypotheses:

\(H_0: \beta = 0\), or the regression coefficient is equal to zero after removing the variation in the outcome variable accounted for by the other predictor variables
H_1: \beta \neq 0, or the regression coefficient is statistically significant from zero after removing the variation in the outcome variable accounted for by the other predictor variables.

Certain assumptions underlie all ordinary least squares (OLS) regression models. Specifically, OLS regression models assume that the predictor (X) is a fixed variable, the predictor (X) is measured without error, and the relationship between the predictor and criterion is linear. In addition, there are also several assumptions concerned with the errors (residuals). Pedhazur (1997) argues that regression analysis is generally robust in the face of violations of assumptions, except for measurement error and specification error. To examine any violations of these assumptions, I examined the data and residual plots for possible patterns.

To address the research questions in this study, I built a series of multiple regression models to examine the relationship among logit estimates on the LTSJ-B scale at the time of entry into the program, experiences prior to entering the program, and perceptions at the beginning of the program. Specifically, I built a multiple regression model using prior experiences and perceptions of successful teaching and goals for teacher preparation, among other variables, to predict logit estimates on the entry LTSJ-B scale at the beginning of the program. As discussed in Chapter 4, to identify significant predictors from the entry survey, I examined correlations among the scales and items on the entry survey.

In addition, I built a series of multiple regression models using experiences in the program including practicum placement, perceptions of preparedness, and satisfaction
with the program, to predict logit estimates on the exit LTSJ-B scale at the time of graduation. To identify predictors, I examined the correlations between the exit LTSJ-B scale and various items and scales on the exit survey.

To identify which factors (if any) are related to a change in scores, I built a series of regression models using the entry LTSJ-B logit estimates and significant predictors from the previous models to predict exit LTSJ-B logit estimates. In other words, I sought to examine if there are any variables that predict beliefs about teaching for social justice above and beyond their predicted beliefs at entry. In other words, the regression models presented in Chapter 6 look something like:

\[
\text{ExitlogitLTSJ} - B = a + b_1\text{EntrylogitLTSJ} - B + b_2x_2 + b_3x_3
\]

**Post-hoc power analysis**

To evaluate the power of the regression models I computed post-hoc power analyses using G*Power 3.1 (Faul, Erdfelder, Buchner & Lang, 2007). For the regression models predicting the 2009 cohort’s beliefs about teaching for social justice, given a medium population effect size \((f^2 = 0.15)\), the total sample size for the 2009 cohort \((n=72)\), and the total number of predictors in the regression model \((m=3)\), the power of the omnibus \(F\) test was calculated as \((1- \beta = 0.77)\). For a desired power level of \((1- \beta = 0.8)\) in this study, the calculated power for 3 predictors was acceptable for this study.

For the regression models predicting the combined cohorts’ beliefs about teaching for social justice, given a medium population effect size \((f^2 = 0.15)\), the total sample size for both cohorts \((n=134)\), and the total number of predictors in the regression model...
(m=4), the power of the omnibus $F$ test was calculated as $(1 - \beta = 0.96)$, a very high level power.

**Dependent means (Paired Samples) T-test**

I conducted a dependent means (or paired samples) T-tests of the mean cohort logit estimates from the entry and exit LTSJ-B scale. These analyses provided evidence of whether teacher candidates differed significantly in their beliefs about teaching for social justice from time of entry to the time of graduation from the teacher preparation program.

**Supporting qualitative analyses**

To support the descriptive, Rasch rating scale, regression and t-test analyses, I examined the responses to the open-response questions that were administered on the 2009 exit survey. Specifically, I analyzed responses to the question, “How would you explain to someone else the idea of teaching for social justice? What does it mean?,” based on teacher candidates’ logit estimates on the LTSJ-B scale at exit. In addition, I analyzed responses to the two remaining open response questions. Specifically, I examined responses to the questions, “How did your beliefs about teaching for social justice change while you were in the teacher education program?” and “What specific aspects of the teacher education program influenced your beliefs about teaching for social justice?”

To analyze these data, I categorized candidates’ responses using the “constant comparative method” of data analysis to “identify, refine, and contrast analytic
categories” (Glaser & Strauss, 1967; Strauss & Corbin, 1998 as cited in Rossman & Rallis, 2003, p. 274). Accordingly, I employed an iterative process of examining and re-examining candidates’ responses in light of codes that emerged from the data. I then “quantified” the data (Miles & Huberman, 1994), looking for patterns in responses and tallying frequencies of common responses. Rossman and Rallis (2003) suggest that this method of analysis is appropriate when “the frequency or amount represents an important quality of the phenomenon” (p. 276). In addition, I captured some of the open responses as in narrative form, “thereby fully developing the evocative power of words” (Rossman & Rallis, 2003, p. 276). The open response analyses were used to complement the statistical findings and lend concrete examples and explanations to the quantitative results.

In Chapters 4 through 6, I present the findings from this dissertation as they pertain to each research question. In Chapter 7, I revisit the central argument of this dissertation and discuss implications for research, policy, and practice.
CHAPTER FOUR: ANALYSES OF ENTRY BELIEFS ABOUT TEACHING FOR SOCIAL JUSTICE

Hillary and Michelle\textsuperscript{12}, both White females, entered the Boston College Lynch School of Education as freshmen in 2005 and 2006, respectively. For both candidates Boston College was their first choice for undergraduate education. Asked why she chose to prepare to teach, Hillary responded, “I have always wanted to become a teacher.” Michelle explained, “I want to motivate children to learn and to become the best person they can be.”

They both had experience working with children from diverse populations in a variety of capacities, including babysitting, tutoring, community service, and as teachers’ aides. Additionally, Hillary and Michelle shared common goals for their teacher preparation program including learning how to help others who have difficulty, helping children reach their fullest potential, and improving student achievement. However, at the beginning of their freshman year, Hillary and Michelle differed in their beliefs about and commitment to teaching for social justice. Specifically, at the time of entry into the program, Hillary’s score on the Learning to Teach for Social Justice-Beliefs (LTSJ-B) scale was lower than the average score for her peers. Hillary endorsed some key principles of teaching for social justice, such as the importance of examining her own beliefs about race, class, culture, and socioeconomic status, and incorporating diverse cultures into her teaching practice. Yet she was uncertain about other concepts and she

\textsuperscript{12} Hillary and Michelle are pseudonyms. The names of the individuals described in these vignettes are unknown to the author.
rejected the most controversial ones, such as challenging the notions of meritocratic society. On the other hand, Michelle’s score on the LTSJ-B scale was higher than the average scores of her peers. Michelle endorsed more of the concepts and principles described in the scale and agreed with an asset-based perspective on the cultural, linguistic, and experiential backgrounds of her future students and their families.

At the beginning of their freshman year, what perceptions and prior experiences, if any, differentiated Hillary and Michelle and their peers in terms of their beliefs about and commitment to teaching for social justice? The analyses presented in Chapter 4 address the first research question: At the time of entry into the program, what are teacher candidates’ beliefs about teaching for social justice? What prior experiences and perceptions about teaching are related to their beliefs at entry about teaching for social justice?

To examine the relationship among teacher candidates’ perceptions, experiences, and beliefs about teaching for social justice, I followed a multi-step analysis plan. First, I examined teacher candidates’ experiences, perceptions, and beliefs based on descriptive statistics of candidates’ responses to the particular survey. Second, I analyzed candidates’ responses to the LTSJ-B scale through descriptive statistics and Rasch rating scale analyses. Third, I conducted correlational analyses, exploring the relationship among survey scales, items, and entry LTSJ-B logit estimates. Fourth, I built multiple regression models to examine these relationships. This series of analyses was conducted first on the 2009 cohort, then on the 2010 cohort. Finally, I combined cohorts to examine the Rasch
variable map and build multiple regression models with all participants in the 2009 and 2010 cohorts. The analysis plan is presented in Figure 4.1.

*Figure 4.1. Analysis plan*

**2009 Cohort**
- Descriptive statistical analyses on survey responses
- Descriptive and Rasch rating scale analyses on LTSJ-B scale
- Exploratory correlational analyses
- Exploratory multiple regression analyses

**2010 Cohort**
- Descriptive statistical analyses on survey responses
- Descriptive and Rasch analyses on LTSJ-B scale
- Replication correlational analyses
- Multiple regression analyses

**Combined 2009 and 2010 Cohorts**
- Descriptive and Rasch rating scale analyses on LTSJ-B scale
- Replication correlational analyses
- Multiple regression analyses

**2009 cohort entry analyses**

*Descriptive statistics on entry survey responses*

The 72 teacher candidates in the 2009 cohort entered Boston College with a variety of experiences and perceptions. Some of these were captured on the entry survey that asks participants about their reasons for attending Boston College, prior experiences with children and adolescents, goals for their teacher preparation program, perceptions of successful teaching, expectations of faculty, philosophies of education, teaching
confidence, and beliefs about teaching for social justice. These analyses provide context for candidates’ experiences prior to and perceptions at the beginning of their freshman year at Boston College.

For most participants (77.8%) in the 2009 cohort, Boston College was their first choice. Asked to rate the importance of particular reasons for attending Boston College, almost all participants listed Boston College’s academic reputation (55.6% “essential,” 43.1% “very important”), the Lynch School of Education’s degree programs and majors (50% “essential,” 34.7% “very important”), the campus’s proximity to the city (44.4% “essential,” 48.6% “very important”), and the potential to get a good job (30.6 “essential” and 58.3% “very important”) as major reasons. In contrast, fewer than 50% of participants reported the Lynch School’s social justice mission as an “essential” (5.6%) or “very important” (41.7%) reason to attend BC. This suggests that while the Lynch School of Education’s social justice mission may have played a role in their decisions to enroll, it may not have been one of the most important reasons for enrolling in Boston College. These findings are similar to previous analyses, in which we (Enterline, et al., 2008) found that “according to survey responses by entering teacher candidates, the social justice theme plays a part in attracting students to the university in general, and teacher education, in particular” (p. 272).

Teacher candidates also provided major reasons for why they were preparing to teach. The open response questions were coded according to candidates’ responses, with themes emerging from the data. Fifty-six percent of respondents reported a love of
children and working with children as a major reason for preparing to teach. One candidate wrote, “I love kids! It's so rewarding to see how much they grow and learn after you teach them something.” In addition, 34% of respondents reported a desire to “make a difference” “influence a life,” or “change the world,” with another candidate explaining, “[T]eaching is one of the most important jobs in society. I want to inspire kids and develop personal relationships with them so that they will grow up to change this world for the better.” These reasons are consistent with previous literature on why new and prospective teachers choose the teaching profession. Cochran-Smith (2006), for example, found that candidates overwhelmingly “wanted to make a difference, they wanted to change the world, or they wanted to help improve the human condition” (p. 103).

All candidates in the 2009 cohort had prior influence or experience with teaching and working with children. Specifically, 37.5% of respondents reported having a family member as a teacher, and 16.7% of participants reported having a family member in the education field, but not in teaching. In addition, all participants reported prior experience with children and adolescents with babysitting (100%), and almost all had experience with children through community service (95.8%) and tutoring (80.6%). Furthermore, most participants in the 2009 cohort had experience working with diverse populations through community service (76.4%) and other activities.

As in previous analyses, undergraduate teacher candidates who responded to the 2005 entry survey, “had sophisticated perceptions about what it means to be a teacher”
Candidates in the 2009 cohort overwhelmingly described a successful teacher as one who “teaches so that all students learn,” “promotes academic development,” “promotes an environment where students understand and respect each other,” and “helps students gain a sense of self-confidence and self-worth in the classroom,” with 79.2% of respondents reporting these characteristics as “essential” and 20.8% reporting these attributes as “very important,” respectively, on all four items. Furthermore, teacher candidates described a successful teacher as one who goes beyond academic learning to promote students’ social and emotional development (73.6% “essential,” 26.4% “very important). By contrast, only approximately 65% of teacher candidates viewed a successful teacher as one who “maintains a quiet and orderly environment” (9.7% “essential,” 56.9% “very important”).

With these ideas in mind, teacher candidates entered Boston College with a variety of goals for their teacher preparation program. In particular, 100% of teacher candidates reported that “help[ing] children reach their highest potential” (88.9% “essential,” 11.1% “very important”) and “learn[ing] how to improve student achievement” (80.6% “essential,” 19.4% “very important”) were goals of paramount importance in their teacher preparation program. In other words, student learning was a priority for all teacher candidates. In addition, more than 90% of teacher candidates reported it was “essential” or “very important” to “learn to help others who are having difficulty” (48.6% “essential,” 47.2% “very important), “participate in a community service or service-learning program” (31.9% “essential,” 65.3% “very important”), and become knowledgeable about social issues that affect teaching and learning” (33.3%
“essential,” 59.7% “very important”). Furthermore, candidates overwhelmingly reported that learning how to manage a classroom (76.4% “essential,” 22.2% “very important”), assess and monitor students’ work (63.9% “essential,” 33.3% “very important”), master grade level/subject matter areas (62.5% “essential,” 33.3% “very important”), and develop curriculum (61.1% “essential,” 33.3% “very important”) were key practices to learn during their teacher preparation program.

At the time of entry into the program, although candidates in the 2009 cohort had strong ideas about what makes a successful teacher and what they wanted to learn during teacher preparation, they were not yet confident in their own teaching practice. For example, only approximately 30% of respondents were confident they would be able to “handle uncertainty by posing questions and seeking the best solution” (2.8% “completely confident,” 26.4% “very confident”), “design and execute classroom research” (1.4% “completely confident,” 27.8% “very confident”), and “know ways to diversify lessons to meet the needs of individual students” (9.7% “completely confident,” 20.8% “very confident”). This suggests that candidates may have been open to learning more about these skills and strategies in their teacher education program.

In many ways, the candidates in the 2009 cohort were similar to other Boston College candidates entering the teacher preparation program. For example, in previous analyses we (Ludlow, Pedulla, et al., 2008) found that “across entry surveys…the majority of candidates had prior experiences working with children and with students of various cultural, economic, and language backgrounds as well as with students with disabilities” (p. 327). Furthermore, “the desire to help children reach their highest
potential was what attracted them to teaching...Most regarded the successful teacher as one who helped students gain a sense of self-confidence and self-worth in the classroom and taught so that all students could learn” (p. 327). In the following sections, I examine candidates’ beliefs about teaching for social justice and how these perceptions and prior experiences are related to their beliefs about social justice at the time they started the Boston College teacher education program.

**Descriptive statistics on LTSJ-B scale**

To examine the 2009 cohort’s beliefs about teaching for social justice at the time of entry into the program, a series of descriptive and Rasch rating scale analyses were conducted. For the 2009 cohort, teacher candidates’ mean raw scale scores on the 12-item LTSJ-B scale is 3.43/5.00, falling between “uncertain” (mean score of 3.0/5.0) and moderately endorsing (mean score of 4.0/5.0) the teaching for social justice principles and practices described in 12 items on the LTSJ-B scale. Across candidates, mean LTSJ-B scale scores range from 2.5/5.0 to 4.58/5.0. The distribution of candidate LTSJ-B raw scale scores is roughly normal as presented in Figure 4.2.
The responses to the 12 items of the LTSJ-B scale generated a reliability estimate, as measured by Cronbach’s alpha, of 0.66, slightly lower than previous administrations, but still reasonable given the complex nature of the construct measured (Ludlow, Enterline, et al., 2008). Only one item (Item 5R), if removed, would slightly increase the reliability estimate of the scale to 0.68. The corrected item-correlations (correlation of an individual item with the remaining 11 items on the scale) produced all positive correlations, ranging from 0.08 (Item 5R) to 0.44 (10R).

Raw item means ranged from a low of 2.48/5.0 (between moderately rejecting and uncertain) for item 12R, “Realistically, the job of a teacher is to prepare students for the lives they are likely to lead,” to a high of 4.08/5.0 on item 4, “Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.” Table 4.1 presents the descriptive statistics for 12 items on the scale in ascending order.
Table 4.1 Descriptive statistics on the 2009 cohort raw entry LTSJ-B items

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12R</td>
<td>Realistically, the job of a teacher is to prepare students for the lives they are likely to lead.</td>
<td>2.48 (1.04)</td>
</tr>
<tr>
<td>11R</td>
<td>Whether students succeed in school depends primarily on how hard they work.</td>
<td>2.85 (0.97)</td>
</tr>
<tr>
<td>3R</td>
<td>For the most part, covering multicultural topics is only relevant to certain subject areas, such as social studies and literature.</td>
<td>2.97 (0.93)</td>
</tr>
<tr>
<td>5R</td>
<td>The most important goal in working with immigrant children and English language learners is that they assimilate into American society.</td>
<td>3.03 (0.86)</td>
</tr>
<tr>
<td>10R</td>
<td>Although teachers have to appreciate diversity, it’s not their job to change society.</td>
<td>3.41 (0.97)</td>
</tr>
<tr>
<td>6R</td>
<td>It’s reasonable for teachers to have lower classroom expectations for students who don’t speak English as their first language.</td>
<td>3.51 (0.88)</td>
</tr>
<tr>
<td>9R</td>
<td>Economically disadvantaged students have more to gain in schools because they bring less into the classroom.</td>
<td>3.59 (0.86)</td>
</tr>
<tr>
<td>2</td>
<td>Issues related to racism and inequity should be openly discussed in the classroom.</td>
<td>3.71 (0.76)</td>
</tr>
<tr>
<td>7</td>
<td>Part of the responsibilities of the teacher is to challenge school arrangements that maintain societal inequities.</td>
<td>3.79 (0.78)</td>
</tr>
<tr>
<td>8</td>
<td>Teachers should teach students to think critically about government positions and actions.</td>
<td>3.85 (0.67)</td>
</tr>
<tr>
<td>1</td>
<td>An important part of learning to be a teacher is examining one’s own attitudes and beliefs about race, class, gender, disabilities, and sexual orientation.</td>
<td>3.93 (0.76)</td>
</tr>
<tr>
<td>4</td>
<td>Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.</td>
<td>4.07 (0.64)</td>
</tr>
</tbody>
</table>

**Rasch rating scale analyses on LTSJ-B Scale**

As discussed in Chapter 3, the scores on the LTSJ-B scale were converted to logits, allowing for precise estimates of each individual’s level of endorsement in comparison to the level of difficulty of endorsing each item on the scale. The 12 items were anchored on the logit estimates from undergraduates from the 2005 exit cohort. Anchoring provides a common metric for comparison across time, cohort, and previous analyses. Furthermore, the anchored 2005 Exit Survey LTSJ-B logit estimates provided a
theoretical basis for comparison to candidates’ beliefs at the end of the teacher preparation program (Enterline, et al., 2008).

The entry LTSJ-B variable map, presented in Figure 4.3, represents teacher candidates’ level of endorsement of the teaching for social justice principles and practices in relation to the 12 items on the scale.

**Figure 4.3. Rasch variable map for 2009 entry LTSJ-B scale**

On the variable map, candidates’ individual logit estimates for the entry LTSJ-B scale are represented to the left of the vertical line. Each “.” or “#” represents one or two candidates’ entry LTSJ-B logit scores, respectively. On the left side of the map (left of the vertical line), the “M” located at +0.45 logits represents the mean, or average, entry
LTSJ-B logit estimate for the 2009 cohort at the time of entry into the program. In other words, the “M” represents the mean cohort level of commitment to the principles and practices of teaching for social justice represented on the LTSJ-B scale. Individual logit estimates range from a low of -0.68 to a high of +2.60 logits. The distribution of individual LTSJ-B logit estimates appears roughly normally distributed, as demonstrated by the spread of mean person estimates on the left side of the variable map.

The right side of the map (right of the vertical line) represents the logit estimates for the 12 items on the LTSJ-B scale. The items are presented vertically from the easiest to endorse item on the bottom (Item 1) to the hardest to endorse at the top (Item 12R). The “M” on the right side of the map, located at 0 logits, represents the mean item difficulty across all items on the scale.

The items on the variable map represent a conceptually coherent continuum of principles and practices related to teaching for social justice. The positively worded items (to which “strongly agree” is the response most consistent with a strong commitment to teaching for social justice) presented on the bottom of the variable map, are the conceptually and theoretically easiest items to endorse on the scale. Specifically, these items relate to individual beliefs and practices that are generally accepted as good teaching. For example, it is generally accepted that incorporating “examining one’s own attitudes and beliefs about race, class, gender, disabilities, and sexual orientation” (SJ1) is an essential piece of being a reflective practitioner (Milner, 2003). Furthermore, incorporating “diverse cultures and experiences into classroom lessons and discussions” (SJ4) is also widely accepted evidence of good teaching. Furthermore, as we (Enterline,
Cochran-Smith, et al., 2008) have pointed out previously, these items are “nearly universal themes in teacher education; they have to do with teachers at the individual level and refer to their own thinking or their own classrooms” (p. 279).

However, as Cochran-Smith and colleagues (Cochran-Smith, Shakman, et al., 2009) have discussed in detail, teaching for social justice is more than just “good teaching.” As the items ascend the variable map, they become more difficult to endorse, tapping into some of the more complex concepts associated with teaching for social justice. For example, items 2, 7, and 8 relate more broadly to curriculum in the classroom and broader roles of teaching, including teaching students to think critically about government policies and practices, and the teacher’s role in challenging school structure and policies that perpetuate inequity.

The reverse-coded items (items with an “R” next to the item number), to which “strongly disagree” is the response most consistent with a teaching for social justice stance, are the most controversial and difficult items to endorse on the scale. Items 9R, 6R, and 5R address candidates’ beliefs about teaching students from historically marginalized groups, including economically disadvantaged students and English language learners, toward whom historically many teachers have held deficit perspectives (Sleeter, 2009). In addition, items 3R and 10R relate to addressing diversity and multicultural topics across the curriculum and participate as activists beyond the classroom (Cochran-Smith, 2010; Grant & Agosto, 2009). Finally, items 11R and 12R, the most difficult items to endorse, expand to the underlying purposes of teaching and schooling.
The Rasch variable map allows for a comparison of mean person logit estimates to mean item logit estimates. For example, the lowest mean person estimate falls at -0.68 logits, higher than the mean item estimates for items 4 and 1. Even someone with the lowest level of commitment to teaching for social justice would tend to endorse the concepts in these items, such as reflecting on his/her teaching and incorporating multicultural topics in the classroom. The mean cohort estimate, located at +0.45 logits, is higher than the mean item estimate, located at 0 logits. This suggests that the average level of endorsement is higher than the mean difficulty of endorsing the items on the LTSJ-B scale. In addition, the individual with the highest mean person estimate, located at +2.60 logits, is much higher than the mean item estimate for item 12R, the most difficult item to endorse on the scale. This comparison suggests that, at the time of entry into the program, candidates in the 2009 cohort may have been familiar with some of the concepts and principles addressed in the LTSJ-B scale.

Figure 4.4, the Rasch-Thurstone thresholds variable map, provides additional evidence that candidates demonstrated some commitment to teaching for social justice at the time of entry into the program. As we (Enterline, et al., 2008) have previously described, the Rasch-Thurstone variable map “provides an analysis of beliefs that is not simply based on differences in overall scale scores but, instead, reveals differences that reflect degrees of endorsement at the individual item level” (p. 280). In particular, when looking at candidates’ beliefs about teaching for social justice, this map “shows whether a location on the scale corresponds to, say, ‘agree’ on the easiest items to endorse,
'disagree' on the slightly harder items to endorse, and 'uncertain' on the most difficult to endorse items” (p. 280).

Specifically, this variable map represents the 0.5 probability (or 50% likelihood) of endorsing each item for a given mean person logit estimate. For example, candidates located at the mean cohort estimate ("M"), +0.45 logits, have a 0.5 probability, or 50% likelihood of scoring “5,” or strongly endorsing items 1 and 4. In addition, on average, candidates had a 0.5 probability of scoring “4” on six items on the scale: 2, 7, 8, 9R, 6R, 3R. However, on average, based on the cohort mean person logit estimate of +0.45 logits, candidates also had a 0.5 probability of scoring “3,” or responding “uncertain” to items 10R, 5R, and scoring “2” or moderately rejecting items 11R and 12R. In other words, for the more controversial aspects of teaching for social justice, on average, candidates’ beliefs about teaching for social justice were not consistent with the Lynch School of Education’s social justice mission or the theories of teacher education for social justice outlined in Chapter 2. Accordingly, for the candidates in the 2009 cohort, there was room to grow – to learn to teach for social justice in the teacher preparation program.
Correlational analyses

To identify candidates’ experiences and perceptions that are related to their beliefs about and commitment to social justice at the time of entry into the program, a series of correlational analyses were conducted, examining in particular the relationships among the logit estimates produced on the LTSJ-B scale and the candidates’ responses to the scales and items on the entry survey. The conceptual and empirical review of the literature on teacher education and learning to teach for social justice suggests that beliefs about teaching for social justice are a complex interaction among individuals’ identity, perceptions, and experiences. These exploratory analyses examined the relationship between candidates’ reported prior experiences and perceptions, and their beliefs about social justice.

2009 cohort mean entry LTSJ-B logit estimate (+0.45)
teaching for social justice, as measured in logits in their responses to the LTSJ-B scale. The significance (alpha) level was set at $p<0.1$, to maximize the potential of finding, and subsequently, replicating relationships in the analyses on the 2010 cohort.

Correlational relationships were first obtained among the entry LTSJ-B logit estimates and the scale scores for the five scales on the entry survey, specifically the “Goals for teacher preparation,” “Successful teacher,” “BC faculty expectations,” “Teaching confidence,” and “Important to learn” scales. The “Goals for teacher preparation” and “Important to learn” scales were significantly correlated with the entry LTSJ-B logit estimates at the alpha level, $p < 0.1$. Furthermore, as demonstrated in Table 4.2 below, the scales were highly correlated with each other. For example, four of the five scales were significantly positively correlated with the “Goals for teacher preparation” scale, demonstrating the relationship among candidates’ reported perceptions and beliefs as measured by responses to the entry survey.
Table 4.2. Relationships among 2009 cohort entry survey scales

<table>
<thead>
<tr>
<th></th>
<th>LTSJ-B logit estimate</th>
<th>Goals for teacher preparation</th>
<th>Successful teacher</th>
<th>Faculty expectations</th>
<th>Teaching confidence</th>
<th>Important to learn</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LTSJ-B logit estimate</strong></td>
<td>1</td>
<td>0.41**</td>
<td>0.19</td>
<td>0.19</td>
<td>-0.19</td>
<td>0.20</td>
</tr>
<tr>
<td>Goals for teacher preparation</td>
<td>---</td>
<td>1</td>
<td>0.50**</td>
<td>0.41**</td>
<td>0.08</td>
<td>0.45**</td>
</tr>
<tr>
<td>Successful teacher</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>0.47**</td>
<td>0.26*</td>
<td>0.55**</td>
</tr>
<tr>
<td>Faculty expectations</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>-0.06</td>
<td>0.57**</td>
</tr>
<tr>
<td>Teaching confidence</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>0.22</td>
</tr>
<tr>
<td>Important to learn</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
</tr>
</tbody>
</table>

* * Indicates significant at the p<0.05 level
** Indicates significance at the p<0.01 level

Further exploratory analyses examined the relationships among the items on the entry survey and the entry LTSJ-B logit estimates for the 2009 cohort. Correlational analyses were conducted at the item-level, grouping items by scale or by overarching concept (e.g., reasons for enrolling in Boston College). From these analyses, items that were significantly related to the LTSJ-B logit estimates at the alpha level, p<0.1 were further examined. Of the 103 items on the entry survey that were examined, 29 items were significantly correlated with candidates’ LTSJ-B logit estimates (at the p<0.1 alpha level). The relationships are presented below:

Reasons to attend BC
- Lynch School of Education programs and degrees (r=0.23, p=0.05)
- Lynch School of Education social justice mission (r=0.21, p=0.08)
- Lynch School of Education open house (r=0.2, p=0.09)
- Participation in BC athletics (r=-0.26, p=0.03)
Family in education
- Family member a teacher ($r=0.28, p=0.02$)
- Family member in education, but not a teacher ($r=0.32, p=0.006$)**

Prior experience
- Experience with children through parenting ($r=0.21, p=0.08$)
- Experience with children through working at a daycare center ($r=0.21, p=0.08$)
- Experience with diverse populations working at a daycare center ($r=0.26, p=0.03$)

Goals for Teacher Preparation**: 
- Help others who are having difficulty learning ($r=0.22, p=0.07$)
- Develop a personal philosophy of education ($r=0.27, p=0.02$)
- Promote understanding across diverse groups ($r=0.40, p<0.005$)**
- Become knowledgeable about social issues that affect teaching and schooling ($r=0.32, p=0.006$)**
- Prepare students to live in a democracy ($r=0.35, p=0.003$)**
- Become knowledgeable about political issues that affect teaching and schooling ($r=0.25, p=0.03$)
- Improve understanding of other countries and cultures ($r=0.40, p<0.005$)**
- Improve student achievement ($r=0.22, p=0.07$)

Successful teacher:
- Help students gain a sense of self-confidence and self-worth ($r=0.35, p=0.003$)**

Philosophical questions:
- Interest and motivation critical to student learning or interest and motivation not the most important factor in learning ($r=-0.21, p=0.08$)

Expectations for BC faculty:
- Be available outside of class ($r=0.24, p=0.04$)
- Have exposure to the realities of contemporary schools ($r=0.20, p=0.095$)

Teaching confidence:
- Diversify lessons to meet special needs ($r=-0.29, p=0.02$)
- Accommodate individual differences ($r=-0.25, p=0.04$)
- Teach in a high-stakes environment ($r=-0.24, p=0.05$)
- Interpret standardized test results ($r=-0.21, p=0.09$)

Important to Learn:
- Encourage parental involvement ($r=0.31, p=0.008$)**
- Integrate technology into the classroom ($r=0.25, p=0.04$)
- Address diversity ($r=0.22, p=0.06$)

Demographic characteristics (i.e., gender, race)
- Gender ($r=0.23, p=0.05$)

**Indicates significance at the $p<0.01$ level

Given the high likelihood of compounded (alpha) error rate, for purposes of building multiple regression models to examine the relationship among candidates’
beliefs about teaching for social justice, experiences, and perceptions at the time of entry into the program, the relationships between the scales, items, and the entry LTSJ-B logit estimates were further examined at the alpha level, p<0.01. One scale, “Goals for teacher preparation,” was significantly correlated with the entry LTSJ-B estimates at the p<0.01 level. In addition to four items captured on the “Goals for teacher preparation” scale, three items are significantly correlated with the entry LTSJ-B logit estimates: “Having a family member in education, but not a teacher” (r=0.32, p=0.006); “A successful teacher is one who helps students gain a sense of self-confidence and self-worth” (r=0.35, p=0.003); and “it is important to learn how to encourage parental involvement” (r=0.31, p=0.008).

The correlational relationships among “Goals for teacher preparation scale,” the remaining three items, and the entry LTSJ-B logit estimates were subsequently explored and are presented in Table 4.3. The entry LTSJ-B logits estimates are all significantly correlated with candidates’ reported beliefs and experiences in these areas. Additionally, the “Goals for teacher preparation” scale is also significantly correlated with the remaining three items at the p<0.05 level. In particular, the “Goals for teacher preparation” scale and the item, “A successful teacher is one who teaches a sense confidence and self-worth” are correlated at the alpha level, p<0.01. Again this demonstrates the conceptual similarities among the scales and items on the entry survey.
Table 4.3. Relationships among 2009 cohort significant scales, items and entry LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>LTSJ-B logit estimates</th>
<th>Goals for Teacher Preparation (Scale)</th>
<th>Family in Education</th>
<th>Successful Teacher: Teaches self-worth</th>
<th>Important to learn: How to involve parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTSJ-B logit estimates</td>
<td>1</td>
<td>r=0.41**</td>
<td>r=0.32**</td>
<td>r=0.35**</td>
</tr>
<tr>
<td>Goals for Teacher Preparation (Scale)</td>
<td>---</td>
<td>1</td>
<td>r=0.24*</td>
<td>r=0.42**</td>
</tr>
<tr>
<td>Family in education</td>
<td></td>
<td>r=0.24*</td>
<td>r=0.05</td>
<td>r=0.24*</td>
</tr>
<tr>
<td>A successful teacher teaches self-worth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important to learn how to involve parents</td>
<td></td>
<td>1</td>
<td>r=0.21</td>
<td></td>
</tr>
</tbody>
</table>

* Indicates significant at the p<0.05 level  
** Indicates significance at the p<0.01 level

The relationships between the entry LTSJ-B logit estimates and the “Goals for teacher preparation” scale, and the items “Family member in education,” “Successful teacher teaches self-confidence and self-worth,” and “It is important to learn how to involve parents” are further examined below.

*Goals for teacher preparation* (r=0.41, p<0.01). The “Goals for teacher preparation” scale asks candidates to rate their level of endorsement to 12 statements regarding their goals for teacher education. Response options include “not important at all,” “not very important,” “very important,” and “essential,” ranging from 1-4 respectively. Candidates with higher scores on the “Goals for teacher preparation” scale, endorsing concepts such as learning how to develop a personal philosophy of teaching, promoting understanding across diverse groups, becoming knowledgeable about social and political issues that affect teaching, teaching students to live in a democracy, increasing understanding of other countries and cultures, and improving student learning,
also tended to have higher entry LTSJ-B logit estimates. In other words, those who strongly endorsed the goals for teacher preparation described in the scale, tended to have a stronger commitment to teaching for social justice, as measured by the LTSJ-B scale.

The scatter plot in Figure 4.5 below demonstrates the graphical representation of the relationship between candidates’ scores on the “Goals for teacher preparation” scale and their entry LTSJ-B logit estimates. Looking at the scatter plot, there appears to be a positive, linear relationship between candidates’ LTSJ-B estimates and their scores on the “Goals for teacher preparation” scale. The three lines in the plot demonstrate the regression line (center line) and the 95% confidence intervals (outer lines). Three candidates fall outside of the 95% confidence interval. Specifically the candidate with the highest entry LTSJ-B logit estimate (highest commitment to teaching for social justice) also strongly endorsed the concepts in the “Goals for teacher preparation” scale, and the candidates with the lowest entry LTSJ-B logit estimates, moderately endorsed the concepts in the “Goals for teacher preparation” scale.

*Figure 4.5. Simple relationship between 2009 cohort goals for teacher preparation and entry LTSJ-B logit estimates*
Family in Education ($r=0.32$, $p<0.01$). Candidates were asked to respond to the question, “Is a member of your family in the education field but not a teacher?” with response options including “No” (0) or Yes (1). Candidates who reported family members in education tended to have higher LTSJ-B logit estimates. Figure 4.6 demonstrates the graphical relationship between “family in education” and candidates’ entry LTSJ-B logit estimates. Interestingly, the two candidates with the highest entry LTSJ-B logit estimates, who fall outside the 95% confidence interval, did not have a family member in education.

Figure 4.6. Simple relationship between 2009 cohort family in education and entry LTSJ-B logit estimates

A Successful teacher teaches students self-confidence and self-worth ($r=0.35$, $p<0.01$). On the “Successful teacher” scale, candidates were asked to rate their level of endorsement to 10 statements defining a successful teacher. One item asks candidates to rate the statement, “A successful teacher helps students gain a sense of self-confidence and self-worth in the classroom,” with response options including “not important at all,” “not very important,” “very important,” and “essential,” ranging from 1-4, respectively.
As depicted in Figure 4.7, candidates who rated the statement as “essential” also tended to have higher entry LTSJ-B logit estimates, or a stronger commitment to teaching for social justice as operationalized by the LTSJ-B scale. As demonstrated in the scatter plot below, although there is a significant relationship between the entry LTSJ-B logit estimates and candidates’ endorsement of a successful teacher teaching self-confidence and self-worth, the candidates with the weakest commitment and strongest commitment to teaching for social justice strongly endorsed this item.

Figure 4.7. Simple relationship between 2009 cohort successful teacher teaches self-confidence and entry LTSJ-B logit estimates.

Important to learn how to encourage parental involvement \( (r=0.31, p<0.01) \). On the “Important to learn” scale, candidates were asked to rate 10 items on the importance of learning different concepts, skills, and strategies in their teacher preparation program. Response options include “Not important at all,” “Not very important,” “Important,” and “Essential,” on a 1-4 scale, respectively. On one of these items, candidates were asked to rate the importance of learning how to encourage parental involvement. As presented in
Figure 4.8, candidates who endorsed the statement that it is important to learn how to encourage parental involvement also tended to have higher entry LTSJ-B logit estimates. Three candidates fall outside the 95% confidence interval, specifically the candidate with the highest entry LTSJ-B logit estimate, who strongly endorsed the importance of learning how to encourage parental involvement, and candidates with the lowest entry LTSJ-B logit estimates who moderately endorsed the item.

**Figure 4.8.** Simple relationship between 2009 cohort important to learn how to encourage parental involvement and entry LTSJ-B logit estimates

The “Goals for teacher preparation” scale and “Successful teachers teach self-confidence,” “Family in education,” and “Important to learn how to involve parents” can be loosely grouped into the following categories: (1) prior experiences and (2) perceptions. Specifically, the “Family in education” relates to candidates’ prior experiences, and the “Important to learn how to involve parents,” “Goals for teacher preparation,” and “Successful teacher is one who teaches self-confidence and self-worth”
fall into perceptions.

*Multiple regression analyses*

As previously discussed, the distribution of individual entry LTSJ-B logit estimates on the 2005 entry survey for the 2009 cohort is roughly normally distributed. All 72 candidates in the 2009 cohort had entry LTSJ-B logit estimates. All 72 candidates responded to the “Family member in education” item. In addition, all 72 candidates responded to the items on the “Goals for teacher preparation” scale, and accordingly had scale scores ranging from 2.5-4.0. However, one person did not respond to the item “Important to learn how to encourage parental involvement.” The missing response was replaced with the mean of the item.

Exploratory multiple regression models were built including all significant variables. Due to the significant correlation between the “Goals for teacher preparation” scale and the “Teaches self-confidence” item (r=0.42, p<0.01) the latter item was not included in the final regression analyses. Accordingly, in the final model, the entry LTSJ-B logit estimates were regressed on “Family member in education,” followed by “Important to learn how to involve parents,” and “Goals for teacher preparation.” Specifically, the variables were entered in this way to examine the relationships among candidates’ beliefs about teaching for social justice and their prior experiences (due to a family member in education), and perceptions (“Encourage parental involvement” and “Goals for teacher preparation”).

In the overall regression for the 2009 cohort of entry LTSJ-B logit estimates on “Family member in education,” “Important to learn how to involve parents,” “Goals for
teacher preparation,” the overall model accounted for a significant 26% of the variance in entry LTSJ-B logit estimates \[R^2= 0.26, \text{F}(3,68)=8.01, p<0.001]. As each predictor was entered into the model, it contributed a statistically significant portion of the variance, with “Family member in education” accounting for 10.4% of the variance, “Important to learn how to encourage parental involvement” accounting for an additional 7.4% of the variance, and the “Goals for teacher preparation” scale accounting for an additional 8.3% of the variance.

In the final model, the magnitude of the partial regression coefficients for the “Family member in education” item (entered first into the model) \(b=0.33, \beta=0.23, t=2.10, p<0.05\) and “Goals for teacher preparation” scale (entered last into the model) \(b=0.45, \beta=0.30, t=2.76, p<0.01\) are statistically significant. However, the magnitude of the partial regression coefficient for “Encourage parental involvement” is no longer statistically significant at the \(p<0.05\) level \(b=0.19, \beta=0.21, t=1.95, p=0.06\). The Variance Inflation Factor (VIF) statistics were all near one indicating that there were minimal multicollinearity effects. In other words, the standard error terms did not increase dramatically (Burns & Ludlow, 2005). Table 4.4 presents the model summary for the multiple regression analysis.

Table 4.4. Model summary of multiple regression analysis for variables predicting 2009 cohort entry LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.55</td>
<td>-3.02</td>
<td>.004</td>
<td></td>
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<tr>
<td>Family member in education</td>
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<td>2.10</td>
<td>.04</td>
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<tr>
<td>Encourage parental involvement</td>
<td>.19</td>
<td>.10</td>
<td>.21</td>
<td>1.95</td>
<td>.06</td>
</tr>
<tr>
<td>Goals for teacher preparation</td>
<td>.45</td>
<td>.17</td>
<td>.30</td>
<td>2.76</td>
<td>.007</td>
</tr>
</tbody>
</table>

The distribution of residuals was nearly perfect, as demonstrated by analysis of
the histogram and the normal P-P plot, and only one potentially outlying case (the
candidate with the highest logit estimate on the LTSJ-B scale, with an entry LTSJ-B logit
estimate of 2.60 and a standardized residual of 3.7).

The final regression solution for the 2009 cohort at the time of entry into the
program is: Predicted LTSJ-B logit estimates = -1.66 + 0.33(Family member in
education) + 0.19 (Encourage parental involvement) + 0.45(Goals for teacher
preparation). These unstandardized coefficients demonstrate the expected change in
entry LTSJ-B logit estimates for a one-unit change in the predictor variables. In this case,
for a one-unit change in family member in education (i.e., going from not having a family
member in education to having a family member in education), candidates’ entry LTSJ-B
logit estimates are predicted to increase 0.33 logits. When we refer back to the Rasch-
Thurstone variable map, we see that this change could result in a shift in the likelihood of
endorsing items on the LTSJ-B scale. In addition, although not statistically significantly
different from 0, for every one-unit increase in “encouraging parental involvement” (e.g.,
going from “very important” to “essential”) candidates’ entry LTSJ-B logit estimates are
predicted to increase 0.19 logits. Finally, for every one-unit increase on the “Goals for
teacher preparation” scale, candidates’ entry LTSJ-B logit estimates are predicted to
increase 0.45 logits.

The standardized coefficients (β) enable comparison between the magnitude of
the effect that predictor variable has on the outcome variable. In this case, “Goals for
teacher preparation” (β=0.30) has a stronger relationship with candidates’ entry LTSJ-B
logit estimates than either “family member in education” (β=0.23) and “encourage
parental involvement” (β=0.19).

These exploratory analyses examined the relationships among the 2009 cohort’s experiences, perceptions, and beliefs about teaching for social justice. These analyses suggest that candidates in the 2009 cohort who had a family member in education tended to have a stronger commitment to teaching for social justice as measured by the LTSJ-B scale. In addition, those who endorsed the statements in the “goals for teacher preparation” scale, tended to have higher entry LTSJ-B logit estimates than those who did not.

Prior to interpreting the relationships explored among candidates’ experiences, perceptions, and beliefs about teaching for social justice, it is important to note that the analyses conducted on the 2009 cohort were exploratory. As Licht (1995) points out, in general, “fishing expeditions,” in which variables are included because they might be useful, are discouraged because they are likely to result in highly inflated Type I error rates; although, in preliminary stages of the study of a phenomenon, these types of exploratory investigations can prove useful. When they are used, however, they should be clearly labeled as exploratory, statistical significance should be interpreted with extreme caution and results should be replicated in more carefully designed confirmatory studies (p. 55).

Accordingly, based on the findings from the 2009 cohort, these analyses were replicated on the 2010 cohort and again on the 2009 and 2010 cohorts combined.
2010 cohort entry analyses

Descriptive statistics on entry survey responses

Prior to analyzing candidates’ beliefs about teaching for social justice, I examined candidates’ experiences and perceptions about teaching at the time of entry into the program. At the beginning of their freshman year, the 62 teacher candidates in the 2010 cohort looked in many ways similar to the candidates in the 2009 cohort. Just as in the 2009 cohort, for most participants in the 2010 cohort (79%), Boston College was their first choice. Additionally, the 2010 cohort shared similar reasons for enrolling in BC. Across reasons to enroll at Boston College, the two groups differed significantly on the importance of BC social activities, where the 2010 cohort placed statistically significantly more importance.

Teacher candidates also provided major reasons for why they were preparing to teach. The open response questions were analyzed from the codes that emerged from the 2009 cohort analyses. Like the 2009 cohort, most respondents (61%) described a love of children and working with children as major reasons for preparing to teach. One candidate wrote, “I love watching kids grow and learn and I want to be a part of the process.” Twenty-three percent of candidates also reported being inspired by a former teacher, and 21 percent reported a desire to “make a difference” “influence a life,” or “change the world.” As another candidate explained, “My major reason for preparing to teach is to help guide the next generation, and education is the best way.”
Almost all candidates in the 2010 cohort had prior influence or experience with teaching and working with children. In particular, a statistically significantly greater number of candidates in the 2010 cohort had experience with babysitting, religious groups, or tutoring students from diverse populations than the 2009 cohort.

Like candidates in the 2009 cohort, candidates in the 2010 cohort overwhelmingly described a successful teacher as one who promotes an environment where students understand and respect one another (88.7% “essential,” 11.3% “very important”), helps students gain a sense of self-confidence and self-worth in the classroom (85.5% “essential,” 14.5% “very important”), teaches so that all students learn (75.8% “essential,” 22.6% “very important”), and motivates students to become lifelong learners (77.4% essential, 21.0% “very important”). In fact, the two groups only differed in one area: the 2009 cohort placed significantly more emphasis on helping children reach their highest potential.

In the 2010 cohort, teacher candidate goals for the preparation program were almost identical to those in the 2009 cohort. Furthermore, although candidates in the 2010 cohort had strong ideas about what makes a successful teacher and what they wanted to learn during teacher preparation, like candidates in the 2009 cohort, they were not yet confident in their own teaching practice. Interestingly, however, on average, at the time of entry into the program, the 2010 cohort was statistically significantly more confident than the 2009 cohort in designing and executing research, diversifying lessons to improve instruction, applying current research, accommodating individual differences, and planning stimulating lessons.
These analyses suggest that, like the candidates in the 2009 cohort, in many ways the candidates in the 2010 cohort were similar to other Boston College candidates entering the teacher preparation program (Ludlow, Pedulla, et al., 2008). In the following sections, I examine candidates’ beliefs about teaching for social justice and how these perceptions and prior experiences are related to their beliefs about social justice at the time they started the Boston College teacher preparation program.

**Descriptive statistics on LTSJ-B scale**

To examine the 2010 cohort’s beliefs about teaching for social justice at the time of entry into the program, a series of descriptive and Rasch rating scale analyses were conducted. For the 2010 cohort, teacher candidates’ mean raw scale scores on the 12-item LTSJ-B scale is 3.35/5.00, slightly less than the mean scale score for the 2009 cohort (3.43/5.00), falling between uncertain (mean score of 3.0/5.0) and moderately endorsing (mean score of 4.0/5.0) the teaching for social justice principles and practices described in 12 items on the LTSJ-B scale. Across candidates, mean entry LTSJ-B scale scores ranged from 2.0/5.0 or moderately rejecting the concepts outlined in the LTSJ-B scale to 4.5/5.0, between moderately and strongly endorsing the concepts and principles described in the scale. The distribution of candidate LTSJ-B scale scores was roughly normal as presented in Figure 4.9.
The responses to the 12 items of the LTSJ-B scale generated a reliability estimate, as measured by Cronbach’s alpha, of 0.70, similar to the reliability estimate on the 2009 cohort, as well as previous analyses on the LTSJ-B scale (Ludlow, Enterline, et al., 2008). One item (Item 6R), if removed, would slightly increase the reliability estimate of the scale to 0.71. The corrected item-correlations produced all positive correlations, ranging from 0.13 (Item 6R) to 0.59 (3R).

Raw item means ranged from a low of 2.29/5.0 (between moderately rejecting and uncertain) for item 12R, “Realistically, the job of a teacher is to prepare students for the lives they are likely to lead” to a high of 4.15/5.0 on item 4 (moderately endorsing), “Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.”
**Rasch rating scale analyses on LTSJ-B scale**

The raw LTSJ-B scale means were converted into logits. For the 2010 cohort, the mean cohort estimate at the time of entry was +0.38 logits (S.D.= 0.68). Individual logit estimates range from a low of -1.36 to a high of +2.33 logits. The distribution of individual entry LTSJ-B logit estimates was roughly normally distributed. Since the items were anchored on the 2005 exit survey estimates, the item estimates (locations of the items) are identical to the item estimates for the 2009 cohort.

The Rasch-Thurstone thresholds variable map provides evidence that, like the candidates in the 2009 cohort, candidates in the 2010 cohort demonstrated some familiarity with teaching for social justice at the time of entry into the program. Candidates located at the mean cohort estimate (“M”), +0.38 logits, had a 0.5 probability, or 50% likelihood of scoring “5,” or strongly endorsing items 1 and 4. Additionally at the average, +0.38 logits, candidates had a 0.5 probability of scoring “4” or moderately endorsing six items on the scale: 2, 7, 8, 9R, 6R, 3R. However, at this location they also had a 0.5 probability of scoring “3,” or responding “uncertain” to items 10R, 5R, and a 0.5 probability of scoring “2” or moderately rejecting items 11R and 12R. In other words, for the more controversial aspects of teaching for social justice, on average, candidates’ beliefs were not consistent with the principles and practices of teaching for social justice described in the review of the literature and endorsed by the Boston College teacher preparation program.
Correlational analyses

To identify candidates’ experiences and perceptions that are related to their beliefs about and commitment to social justice at the time of entry into the program, a series of correlational analyses were replicated, examining the relationship between the logit estimates produced on the LTSJ-B scale and the candidates’ responses to the scales and items on the entry survey. These analyses examined the relationship between candidates’ reported prior experiences and perceptions, and their beliefs about teaching for social justice, as measured in logits, by the their responses to the LTSJ-B scale.

Correlational analyses were replicated on the scales and items that were significant at the alpha level of for the 2009 cohort. Based on this criterion, correlational analyses were conducted on two of the five scales: “Goals for teacher preparation” and “Important to learn.” As presented in Table 4.5, The “Goals for teacher preparation” scale was significantly correlated with the entry LTSJ-B logit estimates as well as the “Important to Learn” scale at the p<0.01 level. However, the “Important to Learn” was not significantly correlated with the entry LTSJ-B logit estimates for the 2010 cohort.

Table 4.5. Relationships among 2010 cohort entry survey scales

<table>
<thead>
<tr>
<th></th>
<th>LTSJ-B logit estimate</th>
<th>Goals for teacher preparation</th>
<th>Important to learn</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTSJ-B logit estimate</td>
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<td>0.33**</td>
<td>-0.04</td>
</tr>
<tr>
<td>Goals for teacher preparation</td>
<td>---</td>
<td>1</td>
<td>0.35**</td>
</tr>
<tr>
<td>Important to learn</td>
<td>---</td>
<td>---</td>
<td>1</td>
</tr>
</tbody>
</table>

** Indicates significant at the p<0.01 level
Further analyses examined the relationship among the items on the entry survey and the entry LTSJ-B logit estimates. Correlational analyses were conducted at the item-level grouping items by scale or by overarching concept. Specifically, correlational analyses were conducted on the 29 items significantly correlated with candidates’ entry LTSJ-B logit estimates (at the p<0.1 level) from the 2009 cohort. These correlations are presented below:

Reasons to attend BC
- Lynch School of Education programs and degrees (r=0.01, p=0.96)
- Lynch School of Education social justice mission (r=0.21, p=0.11)
- Lynch School of Education open house (r=0.05, p=0.72)
- Participation in BC athletics (r=-0.22, p=0.09)

Family in education
- Family member a teacher (r=-0.02, p=0.87)
- Family member in education, but not a teacher (r=0.03, p=0.82)

Prior experience
- Experience with children through parenting (r=0.21, p=0.096)
- Experience with children through working at a daycare center (r=0.09, p=0.47)
- Experience with diverse populations working at a daycare center (r=0.17, p=0.2)

Goals for Teacher Preparation:**
- Help others who are having difficulty learning (r=-0.04, p=0.75)
- Develop a personal philosophy of education (r=0.50, p<0.005)**
- Promote understanding across diverse groups (r=0.51, p <0.005)**
- Become knowledgeable about social issues that affect teaching and schooling (r=0.38, p=0.002)**
- Prepare students to live in a democracy (r=0.20, p=0.13)
- Become knowledgeable about political issues that affect teaching and schooling (r=0.24, p=0.06)
- Improve understanding of other countries and cultures (r=0.33, p=0.009)**
- Improve student achievement (r=0.08, p=0.56)

Successful teacher:
- Help students gain a sense of self-confidence and self-worth (r=0.14, p=0.28)

Philosophical questions:
- Interest and motivation critical to student learning or interest and motivation not the most important factor in learning (r=-0.11, p=0.41)

Expectations for BC faculty:
- Be available outside of class (r=0.17, p=0.18)
- Have exposure to the realities of contemporary schools (r=0.13, p=0.31)

Teaching confidence:
- Diversify lessons to meet special needs (r=-0.18, p=0.16)
- Accommodate individual differences (r=-0.14, p=0.28)
- Teach in a high-stakes environment (r=-0.08, p=0.52)
- Interpret standardized test results (r=-0.20, p=0.12)

Important to Learn:
- Encourage parental involvement (r=-0.19, p=0.14)
- Integrate technology into the classroom (r=-0.15, p=0.23)
- Address diversity (r=0.37, p=0.003)**

Demographic characteristics (i.e., gender, race)
- Gender (r=-0.08, p=0.52)

** Indicates significance at the p<0.01 level.

Of the 29 correlational analyses explored, five items were significantly correlated with candidates’ entry LTSJ-B logit estimates at the p<0.01 level. These include four items captured in the “Goals for teacher preparation” scale, and one additional item: candidates’ endorsement of the statement that it is important to learn how to address diversity (r=0.37, p=0.003).

The correlational relationships among “Goals for teacher preparation scale,” the item “it is important to learn how to address diversity,” and the entry LTSJ-B logit estimates were subsequently explored and are presented in Table 4.6. The “Goals for teacher preparation” scale and “important to learn how to address diversity” item are also significantly correlated with each other (r=0.37, p<0.01), as presented in Table 4.7. Not surprisingly, candidates’ goals for teacher preparation were related to what they believed was important to learn in their teacher preparation program.
Table 4.6. Relationships among 2010 cohort entry LTSJ-B logit estimates, goals for teacher preparation, and important to learn how to address diversity

<table>
<thead>
<tr>
<th>LTSJ-B logit estimates</th>
<th>Goals for Teacher Preparation (Scale)</th>
<th>Important to learn: How to address diversity</th>
</tr>
</thead>
<tbody>
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<td><strong>LTSJ-B logit estimates</strong></td>
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<td>r=0.33**</td>
</tr>
<tr>
<td>Goals for Teacher Preparation (Scale)</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>Important to learn: How to address diversity</td>
<td>---</td>
<td>1</td>
</tr>
</tbody>
</table>

* Indicates significant at the p<0.05 level
** Indicates significance at the p<0.01 level

The relationships between the 2010 cohort entry LTSJ-B logit estimates and the “Goals for teacher preparation” scale, and the item “Important to learn how to address diversity” are further explored below.

Goals for teacher preparation (r=0.33, p<0.01). Candidates with higher scores on the “Goals for teacher preparation” scale, endorsing concepts such as learning how to develop a personal philosophy of teaching, promote understanding across diverse groups, become knowledgeable about social and political issues that affect teaching, teach students to live in a democracy, increase understanding of other countries and cultures, and improve student learning, also tended to have higher entry LTSJ-B logit estimates (i.e., a stronger commitment to teaching for social justice).

The scatter plot in Figure 4.10 demonstrates the graphical representation of the relationship between candidates’ scores on the “Goals for teacher preparation” scale and their entry LTSJ-B logit estimates. All candidates fall within the 95% confidence interval, except for three candidates with the highest entry LTSJ-B logit estimates (strongest
commitment to teaching for social justice) who moderately endorsed the concepts in the “Goals for teacher preparation” scale, and the candidate with the lowest entry LTSJ-B logit estimate, who weakly endorsed the concepts in the “Goals for teacher preparation” scale.

Figure 4.10. Simple relationship between 2010 cohort important to goals for teacher preparation and entry LTSJ-B logit estimates

Important to learn how to address diversity (r=0.37, p<0.01). The “Important to Learn” scale asks candidates to rate their level of endorsement of 10 statements regarding learning specific teaching concepts, skills, and strategies. Response options include “not important at all,” “not very important,” “very important,” and “essential,” ranging from 1-4 respectively. One item on the “Important to Learn” scale asks candidates to rate the importance of learning how to address diversity in the classroom. Candidates with higher scores on the “Important to learn how to address diversity” item, endorsing the idea that it is important to learn how to address diversity during their teacher preparation program, also tended to have higher entry LTSJ-B logit estimates (i.e., a stronger commitment to teaching for social justice).
The scatter plot in Figure 4.11 demonstrates the graphical relationship between candidates’ scores on the “Important to learn how to address diversity” item and their entry LTSJ-B logit estimates. All candidates fall within the 95% confidence interval, except for the three candidates with the highest and lowest entry LTSJ-B logit estimates (strongest and weakest commitment to teaching for social justice). The candidates with the highest and lowest estimates both moderately endorsed the importance of learning how to address diversity in the classroom. A third candidate with the second-lowest LTSJ-B logit estimate strongly endorsed the item.

*Figure 4.11. Simple relationship between 2010 cohort important to learn how to address diversity and entry LTSJ-B logit estimates*

Overall, candidates’ responses to the “Important to learn how to address diversity” and the “Goals for teacher preparation” scale were based on their perceptions of what they wanted to learn during their teacher preparation program.

*Multiple regression analyses*

As previously discussed, for the 2010 cohort, the distribution of individual entry
LTSJ-B logit estimates was roughly normally distributed. All 62 candidates in the 2009 cohort had LTSJ-B entry logit estimates. All 62 candidates had scale scores for the “Goals for Teacher Preparation” scale, and responded to the item, “Important to learn how to address diversity in the classroom.”

Despite the correlation between “Important to learn how to address diversity” and “Goals for teacher preparation,” the scale and item were entered into the multiple regression model. Accordingly, the entry LTSJ-B logit estimates were regressed on “Important to learn how to address diversity,” followed by the “Goals for teacher preparation.”

In the overall regression for the 2010 cohort of entry LTSJ-B logit estimates on “Important to learn how to address diversity” and “Goals for teacher preparation,” the overall model accounted for a significant 17.9% of the variance in LTSJ-B logit estimates \([R^2=0.179, F(2,59)=6.44p=0.003]\). When the item “Important to learn how to address diversity” was entered into the model, it contributed a significant 13.8% of the variance in LTSJ-B logit estimates (\(p=0.003\)). However, when “Goals for teacher preparation” was entered into the model, it contributed an additional, non-significant 4% of the variance in LTSJ-B logit estimates.

As presented in Table 4.7, in the final model, the magnitude of the partial regression coefficient for “Important to learn how to address diversity” (entered first into the model) \((b=0.30, \beta=0.29, t=2.29, p=0.03)\) is statistically significant. However, the magnitude of the partial regression coefficient for the “Goals for teacher preparation” scale (entered last into the model) \((b=0.36, \beta=0.22, t=1.72, p=0.09)\) was not significant.
Although, the VIF statistic was near one (1.15), suggesting that there was minimal multicollinearity, the lack of significance in the “Goals for teacher preparation” could be a function of the correlation between “important to learn how to address diversity” and “Goals for teacher preparation,” or the small sample size in the 2010 cohort (N=62).

Table 4.7. Summary of multiple regression analyses for variables predicting 2010 cohort entry LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
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</thead>
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<td>-2.71</td>
<td>.009</td>
<td></td>
</tr>
<tr>
<td>Address diversity</td>
<td>.30</td>
<td>.13</td>
<td>.29</td>
<td>2.29</td>
<td>.03</td>
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<tr>
<td>Goals for teacher prep</td>
<td>.36</td>
<td>.21</td>
<td>.22</td>
<td>1.72</td>
<td>.09</td>
</tr>
</tbody>
</table>

The distribution of residuals was adequate, as demonstrated by an analysis of the histogram the normal P-P plot, and only one potentially outlying case (the candidate with the highest LTSJ-B logit estimate) with an entry LTSJ-B logit estimate of 2.33 and a standardized residual of 3.27.

The final regression solution for the 2010 cohort at the time of entry into the program is: Predicted LTSJ-B logit estimates = -1.75 +0.30(Important to address diversity) + 0.36(Goals for teacher preparation). The unstandardized coefficients demonstrate the expected change in the entry LTSJ-B logit estimates for every one-unit change in the predictor variables. In other words, for every one-unit increase in candidates’ endorsement of the importance to learn how to address diversity in their teacher preparation program (e.g., moving from “very important” to “essential”), there is a predicted 0.30 increase in their LTSJ-B logit estimate. Furthermore, although not statistically significantly different from 0, for every one-unit increase in candidates’ “Goals for teacher preparation” scale scores, candidates’ entry LTSJ-B logit estimates are
expected to increase 0.36.

The standardized Beta coefficients demonstrate the magnitude of the effect of the predictor variable on candidates’ entry LTSJ-B logit estimates. As demonstrated by the Beta coefficients, the “important to learn how to address diversity” item has a stronger relationship with candidates’ LTSJ-B score (β=0.36) than the non-significant relationship between the “Goals for teacher preparation” and candidates’ entry LTSJ-B logit estimates (β=0.30).

These analyses suggest that, for the 2010 cohort, candidates’ beliefs about teaching for social justice, as measured by the LTSJ-B scale, were related to what they wanted to learn in their teacher education program. Those who endorsed the idea that it is important to learn how to address diversity also tended to have a stronger commitment to principles and concepts of teaching for social justice as measured by the LTSJ-B scale.

Given the similarities between candidates in the 2009 and 2010 cohorts, a third series of analyses was conducted combining candidates’ responses across cohorts. Combining cohorts increased the sample size for the subsequent analyses and allowed for further examination of teacher candidates’ beliefs about teaching for social justice, and the experiences and perceptions that may be related to their beliefs.

**Combined cohort analyses**

*Descriptive statistics on LTSJ-B scale*

To examine the 2009 and 2010 cohorts’ combined beliefs about teaching for social justice at the time of entry into the program, descriptive and Rasch rating scale analyses were conducted. Across both cohorts, teacher candidates’ mean raw scale scores
on the 12-item LTSJ-B scale is 3.39/5.00, fell between uncertain (mean score of 3.0/5.0) and moderately endorsing (mean score of 4.0/5.0) the teaching for social justice principles and practices described in 12 items on the LTSJ-B scale. Across candidates, mean LTSJ-B scale scores range from 2.00/5.0 (moderately rejecting the concepts and principles outlined on the scale) to 4.58/5.0. The distribution of candidate LTSJ-B scale scores was roughly normal, with small holes between the majority of candidates and those on the extremes (highest and lowest LTSJ-B logit estimates) as presented in Figure 4.12.

*Figure 4.12. Distribution of combined cohort entry LTSJ-B raw scale scores*

The responses to the 12 items of the LTSJ-B scale generated a reliability estimate, as measured by Cronbach’s alpha, of 0.69. As previously mentioned, this reliability estimate is consistent with previous analyses on the LTSJ-B scale (e.g., Enterline, Ludlow, et al., 2008; Ludlow, Enterline, et al., 2008). No items, if removed, would increase the reliability estimate of the scale. The corrected item-correlations produced all positive correlations, ranging from 0.20 (Item 9R) to 0.51 (10R).
Raw item means ranged from a low of 2.39/5.0 (between moderately rejecting and uncertain) for item 12R, “Realistically, the job of a teacher is to prepare students for the lives they are likely to lead” to a high of 4.11/5.0 on item 4, “Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.”

**Rasch rating scale analyses on LTSJ-B scale**

Raw scores were converted into logit estimates. Across cohorts, the mean entry LTSJ-B logit estimate was +0.42 logits (S.D.=0.59). Individual logit estimates ranged from a low of -1.36 to a high of +2.60 logits. The distribution of individual entry LTSJ-B logit estimates was roughly normally distributed.

As demonstrated in Figure 4.13, on average, candidates across both cohorts demonstrated a similar level of commitment to teaching for social justice at the time of entry into the program. The 2009 cohort had a mean scale entry LTSJ-B logit estimate of 0.45, the 2010 cohort had a mean scale logit estimate of 0.38, and the combined candidates had a mean logit estimate of 0.42. These results are almost identical to previous analyses on entering undergraduate teacher candidates (Enterline, et al., 2008).

More importantly, across cohorts, the estimates correspond to the same level of beliefs about teaching for social justice. In other words, on average, candidates across cohorts demonstrated the same response patterns on the 12 items on the LTSJ-B scale. Specifically, candidates had a 0.5 probability of scoring “5” or strongly endorsing the easiest to endorse items on the scale: SJ1, examining their underlying beliefs about race, culture, and teaching; and SJ4, incorporating diverse cultures in teaching. In addition,
candidates had a 0.5 probability of scoring “4” or moderately endorsing the concepts and principles outlined in six items: SJ2, SJ7, SJ8, SJ3R, SJ9R, and SJ6R. Candidates had a 0.5 probability of scoring a “3” or responding uncertain to two items: SJ5R and SJ10R. Finally, candidates had a 0.5 probability of scoring “2” or moderately rejecting the concepts and principles outlined in the most difficult to endorse items: SJ11R and SJ12R.

*Figure 4.13.* Rasch-Thurstone thresholds variable map for combined cohort entry LTSJ-B scale

The Rasch-Thurstone variable map also provides an opportunity to compare differences in degrees of beliefs. At the time of entry into the program, Hillary, the candidate
described at the beginning of the chapter, had an entry LTSJ-B logit estimate of -0.07, lower than the average cohort estimate. At -0.07 logits, Hillary had a 0.5 probability of scoring “4” or moderately endorsing five items (SJ1, SJ4, SJ2, SJ7, and SJ8). She had a 0.5 probability of being uncertain about three items (SJ9R, SJ6R, and SJ3R). She also had a 0.5 probability of scoring “2,” or moderately rejecting the four most difficult to endorse items on the scale (SJ10R, SJ5R, SJ11R, and SJ12R). In contrast, Michelle, also described at the beginning of the chapter, had a logit estimate of +0.74, somewhat higher than the average cohort estimate. At +0.74, she had a 0.5 probability of scoring “5,” or strongly endorsing, two items (SJ1, SJ4). Michelle had a 0.5 probability of scoring “4,” or moderately endorsing eight items (SJ2, SJ7, SJ8, SJ9R, SJ6R, SJ3R, and SJ10R), and scoring “3” or being uncertain about the two most difficult items to endorse on the scale (SJ11R and SJ12R).

Together, these analyses suggest that, although candidates varied in their endorsement of the concepts and principles outlined on the LTSJ-B scale, on average, they were familiar with and endorsed the most-widely accepted statements and were uncertain about or moderately rejected the most controversial statements on the LTSJ-B scale. Just as in previous analyses, as we (Enterline, Cochran-Smith, et al., 2008) have described elsewhere, these findings suggest that,

teacher candidates were somewhat simpatico with beliefs that are related to teaching for social justice, as defined by the LTSJ-B scale…These responses [also] indicate that entering teacher candidates were generally uncertain about or unfamiliar with many of the larger and more complex beliefs that support the idea
of teaching for social justice and had a long way to go in terms of embracing these aspects of the [BC teacher education] program’s mission (p. 282).

At the beginning of their freshman year in college, the candidates’ beliefs about teaching for social justice are not unexpected. As previously discussed, the Lynch School of Education’s social justice mission may have played a role in candidates’ decision to enroll in Boston College. However, there were other factors that appeared to have a stronger influence on candidates’ decisions to come to Boston College. In addition, prior to entering Boston College, candidates may not have been exposed to or been aware of the larger systemic school and societal inequities that impact teaching and learning in schools.

**Correlational analyses**

At the cohort level, certain experiences and perceptions were related to each cohort’s beliefs about teaching for social justice. In particular, candidates’ levels of endorsement of their goals for teacher preparation were significantly correlated with their beliefs about teaching for social justice as measured by the LTSJ-B scale. In addition, for the 2009 cohort, the presence of a candidate’s a family member in education appeared to be significantly related to that candidate’s beliefs about teaching for social justice. For the 2010 cohort, the level of endorsement of the importance of learning how to address diversity was significantly correlated with their entry LTSJ-B logit estimates.

The following analyses examined these relationships when both cohorts were combined. Correlational analyses were replicated on the scales and items that were
significant at the alpha level, \( p<0.1 \) on the 2009 cohort. Specifically, correlational analyses were conducted for two of the five scales: “Goals for teacher preparation” and “Important to learn.” The “Goals for teacher preparation” scale was significantly correlated with the LTSJ-B logit estimates as well as the “Important to learn” scale at the \( p<0.01 \) level. However, the “Important to learn” was not significantly correlated with the entry LTSJ-B logit estimates. Table 4.8 presents these relationships.

Table 4.8. Relationships among combined cohort entry survey scales

<table>
<thead>
<tr>
<th></th>
<th>LTSJ-B logit estimate</th>
<th>Goals for teacher preparation</th>
<th>Important to learn</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTSJ-B logit</td>
<td>1</td>
<td>0.37**</td>
<td>0.04</td>
</tr>
<tr>
<td>estimate Goals</td>
<td>---</td>
<td>1</td>
<td>0.40**</td>
</tr>
<tr>
<td>for teacher</td>
<td>---</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>preparation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>learn</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Indicates significant at the \( p<0.05 \) level
** Indicates significance at the \( p<0.01 \) level

Further analyses examined the relationship among the items on the entry survey and the entry LTSJ-B logit estimates. Correlational analyses were conducted at the item-level grouping items by scale or by overarching concept (e.g., reasons for enrolling in Boston College). Specifically, correlational analyses were conducted on the 29 items significantly correlated with candidates’ entry LTSJ-B logit estimates (at the \( p<0.1 \) level) from the 2009 cohort. These correlations include:

Reasons to attend BC
- Lynch School of Education programs and degrees (\( r=0.12, p=0.17 \))
- Lynch School of Education social justice mission (\( r=0.20, p=0.02 \))
- Lynch School of Education open house (\( r=0.12, p=0.17 \))
Participation in BC athletics \( (r=0.25, p=0.004) \)**

Family in education
- Family member a teacher \( (r=0.13, p=0.13) \)
- Family member in education, but not a teacher \( (r=0.16, p=0.07) \)

Prior experience
- Experience with children through parenting \( (r=0.20, p=0.02) \)
- Experience with children through working at a daycare center \( (r=0.06, p=0.49) \)
- Experience with diverse populations working at a daycare center \( (r=0.05, p=0.56) \)

Goals for Teacher Preparation:**
- Help others who are having difficulty learning \( (r=0.09, p=0.31) \)
- Develop a personal philosophy of education \( (r=0.38, p<0.001) \)**
- Promote understanding across diverse groups \( (r=0.46, p <0.001) \)**
- Become knowledgeable about social issues that affect teaching and schooling \( (r=0.35, p<0.001) \)**
- Prepare students to live in a democracy \( (r=0.27, p=0.002) \)**
- Become knowledgeable about political issues that affect teaching and schooling \( (r=0.25, p=0.004) \)**
- Improve understanding of other countries and cultures \( (r=0.37, p<0.001) \)**
- Improve student achievement \( (r=0.14, p=0.10) \)

Successful teacher:
- Help students gain a sense of self-confidence and self-worth \( (r=0.24, p=0.006) \)**

Philosophical questions:
- Interest and motivation critical to student learning or interest and motivation not the most important factor in learning \( (r=0.15, p=0.08) \)

Expectations for BC faculty:
- Be available outside of class \( (r=0.19, p=0.03) \)
- Have exposure to the realities of contemporary schools \( (r=0.16, p=0.07) \)

Teaching confidence:
- Diversify lessons to meet special needs \( (r=0.24, p=0.006) \)**
- Accommodate individual differences \( (r=0.20, p=0.02) \)
- Teach in a high-stakes environment \( (r=-0.16, p=0.08) \)
- Interpret standardized test results \( (r=0.20, p=0.02) \)

Important to Learn:
- Encourage parental involvement \( (r=0.04, p=0.64) \)
- Integrate technology into the classroom \( (r=0.04, p=0.68) \)
- Address diversity \( (r=0.30, p<0.001) \)**

Demographic characteristics (i.e., gender, race)
- Gender \( (r=-0.07, p=0.40) \)

** Indicates significance at the p<0.01 level.

Of the 29 correlational analyses explored, 10 items were significantly correlated with candidates’ LTSJ-B logit estimates at the alpha level, p<0.01. These included six
items captured on the “Goals for teacher preparation” scale and four additional items: candidates’ decision to enroll based on participation in BC athletics ($r=-0.25, p=0.004$); a successful teacher is one who helps students gain a sense of self-confidence and self-worth ($r=0.24, p=0.006$); candidates’ confidence in their ability to diversify lessons to meet all students’ needs ($r=-0.24, p=0.006$); and candidates’ level of endorsement on the importance of learning how to address diversity in the classroom ($r=0.30, p<0.001$).

The relationships among candidates’ entry LTSJ-B logit estimates and the “Goals for teacher preparation” scale, and the items “participation in BC athletics,” “teaching self-confidence and self-worth,” “candidates’ confidence in ability to diversify lessons,” and “important to learn how to address diversity,” were further explored and are presented in Table 4.9.
Table 4.9. Relationships among combined cohort entry LTSJ-B logit estimates and entry items and scales

<table>
<thead>
<tr>
<th></th>
<th>LTSJ-B logit estimates</th>
<th>Goals for teacher preparation</th>
<th>Participation in BC athletics</th>
<th>Successful teacher teaches self-confidence</th>
<th>Confidence in ability to diversify lessons</th>
<th>Important to learn how to address diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTSJ-B logit estimates</td>
<td>1</td>
<td>0.37**</td>
<td>-0.25**</td>
<td>0.24**</td>
<td>-0.24**</td>
<td>0.30**</td>
</tr>
<tr>
<td>Goals for teacher preparation</td>
<td>1</td>
<td>0.02</td>
<td>0.36**</td>
<td>-0.05</td>
<td>0.39**</td>
<td></td>
</tr>
<tr>
<td>Participation in BC athletics</td>
<td>---</td>
<td>1</td>
<td>-0.13</td>
<td>0.12</td>
<td>-0.05</td>
<td></td>
</tr>
<tr>
<td>Successful teacher teaches self-confidence</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>0.01</td>
<td>0.23**</td>
<td></td>
</tr>
<tr>
<td>Confidence in ability to diversify lessons</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important to learn how to address diversity</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

* Indicates significant at the p<0.05 level
** Indicates significance at the p<0.01 level

The entry LTSJ-B logit estimates are significantly correlated with candidates’ reported perceptions in these areas. Additionally, the “Goals for teacher preparation” scale, “successful teacher teaches self-confidence” and “important to learn how to address diversity” items are also significantly intercorrelated at the p<0.01 level. It is not surprising that these items and the “Goals for teacher preparation” scale are highly correlated. As previously discussed, this demonstrates the conceptual similarities among the scales and items on the entry survey. The relationships among candidates’ entry LTSJ-B logit estimates and their scores on the “Goals for teacher preparation” scale and the significant items are further explored below.
**Goals for Teacher Preparation** (r=0.37, p<0.01). Candidates with higher scores on the “Goals for teacher preparation” scale, endorsing concepts such as learning how to develop a personal philosophy of teaching, promote understanding across diverse groups, become knowledgeable about social and political issues that affect teachings, teach students to live in a democracy, increase understanding of other countries and cultures, and improve student learning, also tended to have higher entry LTSJ-B logit estimates (i.e., a stronger commitment to teaching for social justice).

The scatter plot in Figure 4.14 below demonstrates the graphical representation of the relationship between candidates’ scores on the “Goals for teacher preparation” scale and their LTSJ-B logit estimates. All candidates fall within the 95% confidence interval, except for seven candidates with the highest LTSJ-B logit estimates (highest commitment to teaching for social justice) who moderately to strongly endorsed the concepts in the “Goals for Teacher Preparation” scale; the candidate with the lowest LTSJ-B logit estimate, who weakly endorsed the concepts in the “Goals for Teacher Preparation” scale; and a candidate with one of the lowest LTSJ-B logit estimates with strongly endorsed the concepts on the “Goals for Teacher Preparation” scale.
Participation in BC athletics ($r = -0.25$, $p < 0.01$). Candidates are asked to rate the importance of participating in Boston College athletics in making their decision to attend Boston College. Response options include “not important at all,” “not very important,” “very important,” and “essential,” ranging from 1-4, respectively. As demonstrated in Figure 4.15, candidates with higher scores on the “participate in BC athletics” items tended to have lower entry LTSJ-B logit estimates. Five candidates fall outside the 95% confidence interval. Four candidates with the highest entry LTSJ-B logit estimates, who did not rank participating in BC athletics as an important reason to attend BC, had LTSJ-B scores that were higher than expected. In addition, the candidate with the lowest entry LTSJ-B logit estimate considered participation in BC athletics a “very important” reason to attend BC. Interestingly, at the cohort level, this item was not significantly correlated with LTSJ-B logit estimates at the $p < 0.05$ level. Despite the somewhat better-fitting quadratic relationship, the original data were used in subsequent analyses for ease of
interpretation.

Figure 4.15. Simple relationship between combined cohort participation in BC athletics and entry LTSJ-B logit estimates

*A successful teacher helps students gain a sense of self-confidence and self-worth* (r=0.24, p<0.01). On the “Successful teacher” scale, candidates were asked to rate their level of endorsement to 10 statements defining a successful teacher. One item asks candidates to rate the statement, “A successful teacher helps students gain a sense of self-confidence and self-worth in the classroom,” with response options including “not important at all,” “not very important,” “very important,” and “essential,” ranging from 1-4, respectively. Candidates who rated the statement as “essential” also tended to have higher entry LTSJ-B logit estimates, or a stronger commitment to teaching for social justice as operationalized by the LTSJ-B scale. As demonstrated in the scatter plot in Figure 4.16, although there is a significant linear relationship between the entry LTSJ-B logit estimates and candidates’ endorsement of a successful teacher teaching self-confidence and self-worth, the candidates with the weakest commitment and strongest commitment to teaching for social justice strongly endorsed this item.
Figure 4.16. Simple relationship between combined cohort successful teacher teaches self-confidence and entry LTSJ-B logit estimates

Confidence in ability to diversify lessons to meet special needs ($r=-0.24$, $p<0.01$).

On the “teaching confidence” scale, candidates were asked to rate their confidence in their ability to perform a variety of tasks in the classroom. One item asks the candidate to rate his/her level of confidence in knowing ways to diversify lessons to meet the needs of individual students who have special education needs. Response options included “not confident at all,” “somewhat confident,” “very confident,” and “completely confident,” ranging from 1-4, respectively. Candidates who reported being less confident in their ability to diversify lessons tended to have higher entry LTSJ-B logit estimates. As depicted in Figure 4.17, seven candidates fall outside the 95% confidence interval. The four candidates with the highest entry LTSJ-B logit estimates tended to rate their confidence level as “not confident at all.” In addition, two candidates with the lowest entry LTSJ-B logit estimates also reported not being confident at all in their ability to diversify lessons.

Figure 4.17. Simple relationship between combined cohort confidence in diversifying
Important to learn how to address diversity \( (r=0.30, p<0.01) \). Candidates who had higher scores on the “Important to learn how to address diversity” item also tended to have higher entry LTSJ-B logit estimates (i.e., a stronger commitment to teaching for social justice).

The scatter plot in Figure 4.18 graphically represents the relationship between candidates’ scores on the “Important to learn how to address diversity” item and their entry LTSJ-B logit estimates. Five candidates fell outside the 95% confidence interval. In particular, the three candidates with the highest entry LTSJ-B logit estimates responded that it was “not very important,” “very important,” and “essential” to learn how to address diversity. The two candidates with the lowest entry LTSJ-B estimates responded that it was “very important” and “essential” to learn how to address diversity.
As previously discussed, the distribution of individual entry LTSJ-B logit estimates for the 2009 and 2010 cohorts combined is roughly normal. All 134 candidates had entry LTSJ-B logit estimates. All 134 candidates had scale scores for the “Goals for Teacher Preparation” scale, and responded to the item, “A successful teacher is one who helps students gain a sense of self-confidence and self-worth.” However, only 133 candidates rated the importance of participating in BC athletics. Furthermore, only 132 students rated their confidence to diversify lessons and rated the importance of learning how to address diversity. The missing data were replaced with the means of the items.

Exploratory multiple regression models were built with all significantly correlated variables in the models. Given the significant intercorrelations among the “Goals for teacher preparation” scale and the items “a successful teacher is one who helps students gain a sense of self-confidence” and “it is important to learn how to address diversity,”
the two items were not included in the final regression analysis.

The entry LTSJ-B logit estimates were regressed on “Participation in BC athletics,” “Confidence in ability to diversify lessons,” and “Goals for teacher preparation.” Together, these items and scale examine the relationship among candidates’ perceptions at the time of entry into the program and their beliefs about teaching for social justice. The overall regression for the 2010 cohort of entry logit LTSJ-B estimates on “Participation in BC athletics,” “Confidence in ability to diversify lessons,” and the “Goals for teacher preparation” accounted for a statistically significant 23.5% of the variance in LTSJ-B logit estimates \[ R^2=0.235, F(3,130)=13.34, p<.001 \]. As each predictor was entered into the model, it contributed a statistically significant portion of the variance, with “participation in BC athletics” accounting for 6.1% of the variance, “confidence in ability to diversify lessons” accounting for an additional 4.2% of the variance, and the “Goals for Teacher Preparation” scale accounting for an additional 13.2% of the variance.

In the final model, the magnitude of the partial regression coefficients for “participation in BC athletics” \( b=-0.18, \beta=-0.23, t=-3.00, p=.003 \), “confidence in ability to diversify lessons \( b=-0.11, \beta=-0.19, t=-2.44, p=.02 \), and “Goals for teacher preparation” \( b=0.57, \beta=0.36, t=4.74, p<.001 \) are all statistically significant. The VIFs were all near one, suggesting that there was minimal multicollinearity. Table 4.10 below presents the model summary.
Table 4.10. Summary of multiple regression analyses for variables predicting combined cohort entry LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-.85</td>
<td>.41</td>
<td>-2.04</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>Participation in BC athletics</td>
<td>-.18</td>
<td>.06</td>
<td>-3.00</td>
<td>.003</td>
<td></td>
</tr>
<tr>
<td>Confidence to diversify lessons</td>
<td>-.11</td>
<td>.05</td>
<td>-4.74</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Goals for teacher preparation</td>
<td>.57</td>
<td>.12</td>
<td>.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The distribution of residuals was adequate, as demonstrated by an analysis of the histogram the normal P-P plot. There were two potentially outlying cases (the two candidates with the highest LTSJ-B logit estimates).

The final regression solution for the combined cohorts at the time of entry into the program is: Predicted LTSJ-B logit estimates = -0.85 - 0.18(Participation in BC athletics) - 0.11(Confidence in ability to diversify lessons) + .57(Goals for teacher preparation).

The unstandardized coefficients demonstrate the expected change in the LTSJ-B logit estimates for every one-unit change in the predictor variables. In other words, for every one-unit increase in candidates’ rating of the importance of participating in BC athletics (e.g., moving from “very important” to “essential”), there is a predicted 0.18 decrease in their entry LTSJ-B logit estimates. In addition, for every one-unit increase candidates’ confidence to diversify lessons, candidates’ entry LTSJ-B logit estimates are expected to decrease 0.11. Finally, for every one-unit increase in candidates “Goals for teacher preparation” scale scores, candidates’ entry LTSJ-B logit estimates are expected to increase 0.57 logits. When referring back to the Rasch-Thurstone variable map, at any given location, this change could result in a shift in likelihood of endorsing several items on the LTSJ-B scale.

As demonstrated by the Beta coefficients, the “Goals for teacher preparation”
(β=.36) has a stronger relationship with candidates’ entry LTSJ-B logit estimates than either candidates’ participation in BC athletics (β=-.23) or candidates’ confidence in their ability to diversify lessons (β=.19). Furthermore, the magnitude of the relationship between the “Goals for teacher preparation” scale scores and entry LTSJ-B logit estimates is almost twice that of the magnitude between the “confidence to diversify lessons” and LTSJ-B logit estimates.

Looking across cohorts, several patterns emerge. Table 4.11 presents the simple relationships between the predictor variables entered across the multiple regression models for the 2009, 2010, and combined cohorts, and candidates’ entry LTSJ-B logit estimates. Specifically, the items in the gray boxes were entered into the multiple regression models predicting candidates’ entry LTSJ-B logit estimates, and the bold items indicate significant predictors in the multiple regression models. Clearly, across cohorts, candidates’ goals for teacher preparation were significantly related to their beliefs about teaching for social justice. However, for the 2009 cohort, having a family member in education was a significant predictor of candidates’ entry LTSJ-B logit estimates.

On the other hand, for the 2010 cohort, candidates’ confidence to address diversity was a significant predictor of their entry LTSJ-B logit estimates. Finally, when both cohorts were combined, the importance of participating in Boston College athletics became a significant predictor of candidates’ entry LTSJ-B logit estimates. Looking across cohorts, this newly appearing variable could be a function of the small sample size in each of the cohorts. Furthermore, candidates’ confidence in their ability to diversify lessons became a significant predictor of their entry LTSJ-B logit estimates only when
the cohorts were combined. These inconsistent results could be a function of the range and variety of experiences with which candidates’ entered the teacher education program.

Table 4.11. Relationships among significant predictors and entry LTSJ-B logit estimates for the 2009, 2010 and combined cohorts

<table>
<thead>
<tr>
<th></th>
<th>Participation in BC athletics</th>
<th>Family in education</th>
<th>Confidence to diversify lessons</th>
<th>Important to learn: diversity</th>
<th>Important to learn: parents</th>
<th>Goals for teacher preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 cohort</td>
<td>r=-0.26</td>
<td></td>
<td>r=0.32**</td>
<td>r=-0.29</td>
<td>r=0.22</td>
<td>r=0.31**</td>
</tr>
<tr>
<td>2010 cohort</td>
<td>r=-0.22</td>
<td>r=0.03</td>
<td>r=-0.18</td>
<td>r=0.37**</td>
<td>r=-0.19</td>
<td>r=0.33**</td>
</tr>
<tr>
<td>Combined cohorts</td>
<td>r=0.25**</td>
<td>r=0.16</td>
<td>r=0.24**</td>
<td>r=0.30**</td>
<td>r=0.04</td>
<td>r=0.37**</td>
</tr>
</tbody>
</table>

* Indicates significant at the p<0.05 level
** Indicates significant at the p<0.01 level

Summary

These relationships support the empirical literature that past and present influences contribute to candidates’ beliefs about teaching for social justice (e.g., Jones & Enriquez, 2009; Shakman, 2009). These analyses also support Levine-Rasky’s (2001) interpretations that those who have a desire to learn more about educational inequity and its causes were more likely to identify with a social justice stance. Not surprisingly, in this study, candidates who had a stronger commitment to teaching for social justice tended to endorse goals for their teacher preparation that aligned with their beliefs. In other words, candidates who were committed to covering multicultural topics in all subject areas also wanted to improve their understanding of other countries and cultures in their teacher preparation program. In addition, those who were committed to challenging school structures that maintain societal inequity also wanted to become more knowledgeable about the political and social issues that affect schooling. Furthermore, candidates who were not yet confident in their ability to diversify lessons, and potentially wanted to learn more about diversifying lessons tended to have higher entry LTSJ-B logit
estimates. Finally, candidates whose decisions to enroll in Boston College were largely influenced by participation in BC athletics tended to have lower entry LTSJ-B logit estimates. These findings, however, should be interpreted cautiously.

Although examination of candidates’ beliefs about teaching for social justice at the beginning of the teacher preparation program is important, as it sets a baseline for who they were and what they believed at the beginning of the freshman year, the analyses in Chapter 5 examine candidates’ experiences, perceptions, and beliefs about teaching for social justice at the end of the program.
CHAPTER FIVE: ANALYSES OF EXIT BELIEFS ABOUT TEACHING FOR SOCIAL JUSTICE

Hillary and Michelle graduated from the Boston College teacher preparation program in 2009 and 2010, respectively. Hillary was a secondary history major and completed her full-time student teaching experience in an all-male, suburban Catholic high school. At the time of graduation, Hillary rated her teacher education program as excellent and indicated she would definitely enroll in the program again if she had the opportunity, and she would definitely recommend the Boston College teacher education program to other prospective teachers. After graduation, Hillary planned to continue her studies in the fifth-year program and complete a master’s degree in Curriculum and Instruction at Boston College. After completing her degree, Hillary wrote, “I plan to teach until I retire. It is something I love to do, so I do not think I will ever seek another job.”

Michelle was an elementary education major and completed her full-time student teaching experience in a co-educational, urban public school. Like Hillary, Michelle rated her teacher education program as excellent. She indicated she would also definitely recommend the teacher education program to prospective teachers, and she would definitely enroll in the teacher education program if she were to do it again. Following graduation, Michelle was awarded a prestigious grant to attend Teachers College, Columbia University to pursue graduate studies in the fall. After completing her graduate degree, Michelle planned to “teach for many, many years because I love working with
children, especially in a classroom setting. I hope to one day teach high school English as well. I think being an educator is the most fitting job for me because it allows me to fulfill my love for helping others with characteristics as a lifetime student.”

Although they had shared similar experiences during their four years at Boston College, and both rated their social justice-oriented teacher preparation programs favorably, at the time of graduation, Hillary and Michelle differed in their beliefs about teaching for social justice. Specifically, Hillary’s scores on the LTSJ- B scale were lower than those of her peers, while Michelle’s scores on the LTSJ-B scale were higher than her peers.

At the end of their senior year, what experiences and perceptions, if any, differentiated Hillary and Michelle and their peers in terms of their beliefs about and commitment to teaching for social justice? The analyses presented in Chapter 5 address the second research question: At the time of graduation, what are teacher candidates’ beliefs about teaching for social justice? What aspects of their reported experiences in the teacher education program, perceptions of preparedness, and satisfaction with the program are related to candidates’ subsequent beliefs about social justice at graduation? To examine the relationship among teacher candidates’ perceptions, experiences, and beliefs about teaching for social justice, I followed a similar multi-step analysis plan as the one presented in Chapter 4. First, I examined teacher candidates’ experiences, perceptions, and beliefs based on descriptive statistics of candidates’ responses to the exit survey. Second, I analyzed candidates’ responses to the LTSJ-B scale through descriptive
statistics and Rasch rating scale analyses. Third, I conducted correlational analyses, exploring the relationship among survey scales, items, and candidates’ exit LTSJ-B logit estimates. Fourth, I built multiple regression models to examine these relationships. This series of analyses was conducted first on the 2009 cohort, then on the 2010 cohort. Fifth, I combined cohorts to examine the Rasch variable map, explore correlational relationships, and build multiple regression models with all participants in the 2009 and 2010 cohorts. Finally, I analyzed the 2009 cohort’s responses to an open-response question on the definition of teaching for social justice.

2009 cohort exit analyses

Descriptive statistics on exit survey responses

At the time of graduation, the 72 teacher candidates in the 2009 cohort had four years of experiences in the teacher education program. Some of these experiences, perceptions, and beliefs were captured on the 2009 exit survey. The exit survey asks participants to respond to questions about their experiences, perceptions and beliefs surrounding inquiry, teaching and learning, subject matter knowledge, pedagogy, teaching diverse learners, pre-practicum and full practicum experiences, program evaluation, and teaching for social justice. The descriptive analyses on candidates’ responses to the exit survey provide context for candidates’ experiences during, as well as their perceptions, degree of satisfaction, and beliefs at the end of their senior year and the completion of their teacher education program.
Of the candidates in the 2009 cohort, 6.9% completed their teacher preparation in early childhood education, 52.8% completed their teacher preparation in elementary education, and 40.3% completed their preparation in secondary education. While the vast majority (90.3%) completed their student teaching in a multicultural setting, candidates’ student teaching experiences differed across contexts. In particular, 62.5% of candidates reported that they completed their student teaching in a suburban setting, while 36.1% reported that they completed their student teaching in an urban setting. Most candidates (84.7%) completed their student teaching in a public school, and the remainder completed their student teaching in either an private independent (2.8%) or Catholic (9.7%) school. Almost all candidates (95.8%) completed their student teaching in a co-educational setting, while a small minority (4.2%) completed their student teaching in all-male schools.

At graduation, candidates in the 2009 cohort overwhelmingly rated their teacher education programs favorably; more than 95% of respondents rated their overall preparation as “excellent” (70.8%) or “good” (26.4%), and responded that they would still have enrolled in the Boston College teacher preparation program (76.4% “definitely yes,” 19.4% “probably yes”). Almost all candidates would “definitely” (77.8%) or “probably” (19.4%) recommend their program to other perspective teachers. Furthermore, almost all candidates rated their ability to make a significant difference in the learning of their students favorably (56.9% “excellent,” 40.3% “good”).
In particular, when asked how well the teacher preparation program prepared them to teach, greater than 95% of candidates positively rated their preparation to reflect on and improve their teaching performance (84.7% “excellent,” 13.9% “good”), evaluate their theories of teaching (77.8% “excellent,” 20.8% “good”), and teach content knowledge and skills (77.8% “excellent,” 19.4% “good”). Furthermore, more than 90% of candidates rated their preparation to teach all students including those of different ability levels (51.4% “excellent,” 40.3% “good”), socio-economic backgrounds (61.1% “excellent,” 30.6% “good”), ethnic and cultural backgrounds (61.1% “excellent,” 30.6% “good”), and students in urban school systems (55.6% “excellent,” 34.7% “good) positively.

Candidates were highly satisfied with some aspects of their program including their student teaching experience (81.9% “excellent,” 16.7% “good”) as well as the feedback they received from their cooperating teaching (79.2% “excellent,” 19.4% “good). However, compared to other aspects of their program, they were less favorable about the advice they received from their Arts and Sciences advisor (16.7% “excellent,” 18.1% “good”), and their inquiry seminar in the teacher education program (19.4% “excellent,” 36.1% “good”).

The candidates in the 2009 cohort were similar to other Boston College candidates completing the teacher preparation program. For example, in previous analyses we (Ludlow, Pedulla, et al., 2008) found that across exit surveys

[C]andidates were generally very satisfied with pre-service preparation and felt well
prepared to teach…Like many teacher candidates historically, exiting teacher candidates rated their full-time student teaching experience and feedback from their cooperating teachers very positively in terms of effectiveness and general preparation for teaching (p. 327).

In the following sections, I examine candidates’ beliefs about teaching for social justice and how these perceptions and experiences relate to their beliefs about social justice at the end of their Boston College undergraduate experience.

**Descriptive statistics on LTSJ-B scale**

To examine the 2009 cohort’s beliefs about teaching for social justice at the time of graduation from the program, a series of descriptive and Rasch rating scale analyses were conducted. For the 2009 cohort, teacher candidates’ mean raw scale scores on the 12-item LTSJ-B scale is 3.93/5.00. In other words, on average, candidates moderately endorsed the teaching for social justice principles and practices described in 12 items on the LTSJ-B scale. Across candidates, mean LTSJ-B scale scores range from 2.67/5.0 to 4.97/5.0. The distribution of candidate LTSJ-B raw scale scores is roughly normally distributed as presented in Figure 5.1.
Responses to the 12 items of the LTSJ-B scale generated a reliability estimate, as measured by Cronbach’s alpha, of 0.74, similar to previous analyses on the LTSJ-B scale (Ludlow, Enterline, et al., 2008). No items if removed, would increase the reliability estimate of the scale. The corrected item-correlations (correlation of an individual item with the remaining 11 items on the scale) produced all positive correlations, ranging from 0.10 (Item 5R) to 0.57 (3R).

Raw item means ranged from a low of 2.99/5.0 (uncertain) for item 12R, “Realistically, the job of a teacher is to prepare students for the lives they are likely to lead” to a high of 4.71/5.0 (strongly endorsing) on item 4, “Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.” Table 5.1 presents the descriptive statistics for the 12 items on the LTSJ-B scale ordered from lowest to highest mean.
Table 5.1. Descriptive statistics on the 2009 cohort raw exit LTSJ-B items

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Mean (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12R</td>
<td>Realistically, the job of a teacher is to prepare students for the lives they are likely to lead.</td>
<td>2.99 (1.19)</td>
</tr>
<tr>
<td>11R</td>
<td>Whether students succeed in school depends primarily on how hard they work.</td>
<td>3.21 (1.02)</td>
</tr>
<tr>
<td>10R</td>
<td>Although teachers have to appreciate diversity, it’s not their job to change society.</td>
<td>3.74 (0.88)</td>
</tr>
<tr>
<td>5R</td>
<td>The most important goal in working with immigrant children and English language learners is that they assimilate into American society.</td>
<td>3.85 (0.83)</td>
</tr>
<tr>
<td>3R</td>
<td>For the most part, covering multicultural topics is only relevant to certain subject areas, such as social studies and literature.</td>
<td>3.94 (1.02)</td>
</tr>
<tr>
<td>9R</td>
<td>Economically disadvantaged students have more to gain in schools because they bring less into the classroom.</td>
<td>4.06 (1.09)</td>
</tr>
<tr>
<td>2</td>
<td>Issues related to racism and inequity should be openly discussed in the classroom.</td>
<td>4.10 (0.61)</td>
</tr>
<tr>
<td>7</td>
<td>Part of the responsibilities of the teacher is to challenge school arrangements that maintain societal inequities.</td>
<td>4.10 (0.85)</td>
</tr>
<tr>
<td>6R</td>
<td>It’s reasonable for teachers to have lower classroom expectations for students who don’t speak English as their first language.</td>
<td>4.24 (0.76)</td>
</tr>
<tr>
<td>8</td>
<td>Teachers should teach students to think critically about government positions and actions.</td>
<td>4.26 (0.67)</td>
</tr>
<tr>
<td>1</td>
<td>An important part of learning to be a teacher is examining one’s own attitudes and beliefs about race, class, gender, disabilities, and sexual orientation.</td>
<td>4.54 (0.56)</td>
</tr>
<tr>
<td>4</td>
<td>Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.</td>
<td>4.71 (0.46)</td>
</tr>
</tbody>
</table>

Rasch rating scale analyses on LTSJ-B scale

The scores on the LTSJ-B scale were converted to logits, allowing for precise estimates of each individual’s level of endorsement in comparison to the level of difficulty of endorsing each item on the scale. The 12 items were anchored on the logit estimates from undergraduates from the 2005 exit cohort. The mean, or average, exit LTSJ-B logit estimate for the 2009 cohort at the time of graduation from the program was +1.34 (S.D. = 0.82). Individual logit estimates range from a low of -0.45 to a high of +4.63 logits. The distribution of individual exit LTSJ-B logit estimates was roughly normally distributed.
Figure 5.2, the Rasch-Thurstone thresholds variable map, provides evidence of the degree to which candidates demonstrated commitment to teaching for social justice at the time of graduation from the program. Candidates located at the mean cohort estimate (“M”), +1.34 logits, had a 0.5 probability, or 50% likelihood of scoring “5,” or strongly endorsing items 1 and 4. In addition, on average, candidates had a 0.5 probability or scoring a “4” on 9 items on the scale: 2, 7, 8, 9R, 6R, 3R, 105, 5R, and 11R. However, on average, based on the cohort mean person logit estimate of +1.34 logits, candidates also had a 0.5 probability of scoring “3,” or responding “uncertain” to item 12R. In other words, at the time of graduation from the teacher education program, candidates generally endorsed the concepts and principles outlined in the LTSJ-B scale. They were uncertain about only the most controversial concepts presented on the scale.

In contrast, the candidate with the lowest exit LTSJ-B estimate, -0.45 logits, had a 0.5 probability of moderately endorsing two items (1 and 4), responding “uncertain” to three items (2, 7, 8), and moderately rejecting five items (9R, 6R, 3R, 10R, 5R), and strongly rejecting the most controversial items (11R, 12R) on the LTSJ-B scale. The candidate with the highest logit estimate (+4.63) had a 0.5 probability of scoring “5,” or strongly endorsing all items on the LTSJ-B scale.
Correlational analyses

To identify candidates’ experiences and perceptions that are related to their beliefs about and commitment to social justice at the time of graduation from the program, a series of correlational analyses was conducted, examining in particular the relationships among the logit estimates produced on the LTSJ-B scale and the candidates’ responses to the scales and items on the exit survey. These exploratory analyses
examined the relationship between candidates’ reported experiences and perceptions during and at the end of the program and their beliefs about teaching for social justice, as measured in logits, by their responses to the LTSJ-B scale. The significance (alpha) level was set at $p<0.1$ to maximize the potential of finding, and subsequently replicating relationships in the analyses on the 2010 cohort.

Correlational relationships were first obtained among the exit LTSJ-B logit estimates and the scale scores for the 3 scales, “Preparation for classroom teaching,” “Teaching diverse learners,” and “BC Evaluation.” Although the “Preparation for classroom teaching,” “Teaching diverse learners,” and “BC evaluation” scales were highly intercorrelated, none of the scales was significantly correlated with the LTSJ-B logit estimates, as presented in Table 5.2.

### Table 5.2. Simple relationships among 2009 cohort exit scales and exit LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>LTSJ-B logit estimate</th>
<th>Preparation for classroom teaching</th>
<th>Teaching diverse learners</th>
<th>BC evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTSJ-B logit estimate</td>
<td>1</td>
<td>-0.10</td>
<td>0.12</td>
</tr>
<tr>
<td>Preparation for classroom teaching</td>
<td>---</td>
<td>1</td>
<td>0.69**</td>
</tr>
<tr>
<td>Teaching diverse learners</td>
<td>---</td>
<td>0.69**</td>
<td>0.69**</td>
</tr>
<tr>
<td>BC evaluation</td>
<td>---</td>
<td>1</td>
<td>0.50**</td>
</tr>
</tbody>
</table>

* Indicates significant at the $p<0.05$ level  
** Indicates significance at the $p<0.01$ level

Subsequent correlational analyses were obtained among the exit LTSJ-B logit estimates and the six subscales: (1) inquiry; (2) teaching and learning; (3) practicum evaluation; (4) program evaluation; (5) A&S evaluation; and (6) TE faculty evaluation. The first two subscales (inquiry and teaching and learning) fall under the “Preparation for classroom teaching” scale. The remaining four subscales (practicum evaluation, program
evaluation; A&S evaluation; and TE faculty evaluation) fall under “BC evaluation” scale.

Table 5.3 presents these relationships.

Table 5.3. Simple relationships among 2009 cohort exit subscales and exit LTSJ-B logit estimates

<table>
<thead>
<tr>
<th></th>
<th>Preparation for classroom teaching</th>
<th>BC Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LTSJ-B logit estimate</td>
<td>Inquiry</td>
</tr>
<tr>
<td>LTSJ-B logit estimate</td>
<td>1</td>
<td>0.01</td>
</tr>
<tr>
<td>Inquiry</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>Teaching and learning</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Practicum Evaluation</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Program Evaluation</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>A&amp;S Evaluation</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>TE faculty evaluation</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

*Indicates significance at the p<0.05 level  
**Indicates significance at the p<0.01 level

The subscales were highly correlated with each other; all five subscales were significantly positively correlated with the “Teaching and learning” subscale, demonstrating the conceptual relationship among candidates’ reported perceptions and as measured by responses on the exit survey. The “teacher education (TE) faculty evaluation” subscale was the only subscale significantly correlated with LTSJ-B estimates at the p<0.1 level.
Further exploratory analyses examined the relationship among the items on the exit survey and the exit LTSJ-B logit estimates. Correlational analyses were conducted at the item-level grouping items by scale or by overarching concept (e.g., student teaching context). From these analyses, items that were significantly related to the LTSJ-B logit estimates at the alpha level, p<0.1, were further examined. Of the 89 items on the exit survey that were examined, 13 items were significantly correlated with candidates’ exit LTSJ-B logit estimates (at the p<0.1 level). The relationships are presented below:

**Preparation for classroom teaching**

- Inquiry
  - Handle uncertainty (r=0.20, p<0.10)
  - Diversify lessons to meet special needs (r=0.22, p=0.07)
  - Read and understand IEPs and provide accommodations (r=-0.24, p<0.05)
- Teaching and Learning
  - Read and understand 504 plans and provide accommodations (r=-0.20, p=0.09)
  - Plan stimulating lessons (r=-0.25, p=0.03)
  - Teach content knowledge (r=-0.27, p=0.03)
  - Use educational technology (r=0.25, p=0.04)

**BC Evaluation**

- A&S Evaluation
  - Arts and Science faculty knew very little about the realities of contemporary schools (Recoded) (r=0.25, p=0.04)
- TE Evaluation**
  - Teacher education faculty knew very little about the realities of contemporary schools (Recoded) (r=0.35, p=0.003)**
  - Teacher education faculty structure their courses around real problems in schools (r=0.24, p<0.05)

**Student teaching context**

- Student teaching location (r=0.34, p=0.004)**

**Demographic characteristics (e.g., gender, race/ethnicity)**

- Gender (r=0.24, p=0.04)
- Race/ethnicity (r=0.32, p=0.007)**

**Indicates significance at the p<0.01 level.

Given the high likelihood of compounded (alpha) error rate, for purposes of
building multiple regression models to examine the relationship among candidates’ beliefs about teaching for social justice, experiences, and perceptions at the time of entry into the program, the relationships between the scales, items, and the exit LTSJ-B logit estimates were further examined at the alpha level p<0.01. One subscale, “Teacher education evaluation” was significantly correlated with the exit LTSJ-B estimates at the p<0.01 level. In addition to one item captured on the “Teacher education faculty evaluation” subscale, two items are significantly correlated with the exit LTSJ-B logit estimates: student teaching location and candidates’ race/ethnicity.

The correlational relationships among “Teacher education faculty evaluation” subscale, student teaching location, race/ethnicity and the exit LTSJ-B logit estimates were subsequently explored and are presented in Table 5.4. The exit LTSJ-B logits estimates are all significantly correlated with candidates’ reported beliefs and experiences in these areas. Additionally, the setting of candidates’ student teaching location is significantly correlated with candidates’ race/ethnicity at the p<0.05 level.

Table 5.4. Relationships among 2009 cohort significant exit subscales, items and exit LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>LTSJ-B logit estimates</th>
<th>Teacher education faculty evaluation</th>
<th>Student teaching location</th>
<th>Race/ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>r=0.36**</td>
<td>r=0.34**</td>
<td>r=0.32**</td>
</tr>
<tr>
<td>Teacher education faculty evaluation</td>
<td>---</td>
<td>1</td>
<td>r=-0.02</td>
</tr>
<tr>
<td>Setting for student teaching</td>
<td>---</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

* Indicates significant at the p<0.05 level
** Indicates significance at the p<0.01 level
The relationships between the exit LTSJ-B logit estimates and the “Teacher education faculty evaluation” subscale, and the items “student teaching location,” and “race/ethnicity” are further examined below.

*Teacher education faculty evaluation subscale* ($r=0.36$, $p<0.01$). The “Teacher education faculty evaluation” subscale asks candidates to rate their agreement with statements about the extent to which the teacher education faculty knew about the realities of contemporary schools, were involved in schools and youth, and structured their courses around real problems of teaching practice. Response options include “strongly disagree,” “disagree “agree” and “strongly agree,” ranging from 1-4 respectively. Candidates who had higher scores on the “Teacher education faculty evaluation” subscale, agreed with statements such as the teacher education faculty were involved with school and youth, knew about the realities of contemporary schools, and structured their courses around the real problems of teaching practice, also tended to have higher exit LTSJ-B logit estimates. In other words, those who believed that their BC teacher education faculty were knowledgeable about schools and youth, and who structured their courses accordingly, tended to have a stronger commitment to teaching for social justice, as measured by the LTSJ-B scale.

The scatter plot in Figure 5.3 below demonstrates the graphical relationship between candidates’ scores on the “Teacher education faculty evaluation” subscale and their exit LTSJ-B logit estimates. The three lines in the plot demonstrate the regression line (center line) and 95% confidence interval (outer lines). Looking at the scatter plot, there appears to be a positive, linear relationship between candidates’ exit LTSJ-B
estimates and their scores on the “Teacher education faculty” subscale. Four candidates fall outside of the 95% confidence interval. Specifically, the candidate with the highest exit LTSJ-B logit estimate (highest commitment to teaching for social justice) also agreed that the teacher education faculty were knowledgeable about and structured their courses around real problems of teaching practice. Another candidate with the second highest exit LTSJ-B logit estimate moderately rejected the items on the teacher education faculty subscale. Finally, the two candidates with the lowest exit LTSJ-B logit estimates agreed and strongly agreed with the statements on the teacher education faculty subscale.

*Figure 5.3.* Simple relationship between 2009 cohort teacher education faculty evaluation and exit LTSJ-B logit estimates

*Student teaching location* (r=0.34, p<0.01). Candidates were asked to describe the location of the school in which they did their student teaching. Response options include “suburban,” “urban,” and “other.” Only one candidate responded “other.” The item was recoded to include only the “suburban” (0) and “urban” (1) options. The candidate who responded “other” was recoded to “suburban” based on her responses to the other items.
Candidates who reported that they did their student teaching in an urban location tended to have higher exit LTSJ-B logit estimates than those who completed their student teaching in a suburban setting. Figure 5.4 demonstrates the graphical relationship between “student teaching location” and candidates’ exit LTSJ-B logit estimates. Interestingly, while the candidate with the highest exit LTSJ-B logit estimate completed her student teaching in an urban location, the candidate with the second highest exit LTSJ-B logit estimated completed her student teaching in a suburban location.

*Figure 5.4. Simple relationship between 2009 cohort student teaching location and exit LTSJ-B logit estimates*

*Race/ethnicity* \((r=0.32, p<0.01)\). Candidates were asked to report their race ethnicity on the 2009 exit survey. Candidates had the option to select all that apply to the following options: African American; Asian; Black, Caribbean, West Indies; Latino, Hispanic, Puerto Rican; Native American; White; Other. These responses were recoded into non-AHANA (anyone who selected White and no other race/ethnicity) \((0)\), and AHANA (anyone who selected at least one of the options: African American; Asian; Black, Caribbean, West Indies; Latino, Hispanic, Puerto Rican; Native American) \((1)\).
As depicted in Figure 5.5, candidates who self-identified as AHANA also tended to have higher exit LTSJ-B logit estimates, or a stronger commitment to teaching for social justice as operationalized by the LTSJ-B scale. As demonstrated in the scatter plot below, the candidate with the highest exit LTSJ-B logit estimate self-identified as AHANA. The candidate with the second highest exit LTSJ-B logit estimate self-identified as White, and the candidate with the lowest exit LTSJ-B logit estimate self-identified as White.

*Figure 5.5. Simple relationship between 2009 cohort race/ethnicity and exit LTSJ-B logit estimates*

The “Teacher education faculty” subscale and “Student teaching location,” and “race/ethnicity” can be loosely grouped into the following categories: (1) identity; (2) experiences; and (3) perceptions. Specifically, race/ethnicity relates to candidates’ identity, student teaching setting relates to candidates’ experiences, and teacher education faculty evaluation can be a proxy for candidates’ perceptions about their teacher education faculty.
Multiple regression analyses

As previously discussed, the distribution of individual exit LTSJ-B logit estimates on the 2009 exit survey for the 2009 cohort was roughly normally distributed. All 72 candidates in the 2009 cohort had exit LTSJ-B logit estimates. All 72 candidates had scores on the “teacher education faculty evaluation” subscale and self-identified in terms of race. However, one person responded that the location or his/her student teaching was “other,” and was recoded as missing data. Based on the candidate’s responses to the others items on the exit survey, the missing response was replaced with “suburban.”

The exit LTSJ-B logit estimates were regressed on “race/ethnicity,” “student teaching location,” and “teacher education faculty evaluation.” Specifically, the variables were entered in this way to examine the relationships among candidates’ beliefs about teaching for social justice, their identity, experiences while in the program, and perceptions of their teacher education faculty at the end of the program.

In the overall regression for the 2009 cohort of exit LTSJ-B logit estimates on “race/ethnicity,” “student teaching location,” and “teacher education faculty evaluation,” the overall model accounted for a significant 29.8% of the variance in exit LTSJ-B logit estimates [$R^2 = 0.298$, $F(3,68)=9.63,p<0.001$]. As each predictor was entered into the model, it contributed a statistically significant portion of the variance, with “race/ethnicity” accounting for 10% of the variance, “student teaching location” accounting for an additional 7.7% of the variance, and the “teacher education faculty evaluation” subscale accounting for an additional 12.1% of the variance.

In the final model, the magnitude of the partial regression coefficients for the
“race/ethnicity” item (b=0.54, β=0.22, t=2.09, p<0.05), student teaching location (b=0.51, β=0.29, t=2.85, p<0.01), and “teacher education faculty evaluation” (b=0.67, β=0.35, t=3.43, p<0.01) are statistically significant. The VIF statistics were all near one indicating that there were minimal multicollinearity effects. Table 5.5 presents the model summary for the multiple regression analysis.

Table 5.5. Summary of multiple regression analysis for variables predicting 2009 cohort exit LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.01</td>
<td>.62</td>
<td>-1.64</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>.54</td>
<td>.26</td>
<td>.22</td>
<td>2.09</td>
<td>.04</td>
</tr>
<tr>
<td>Student teaching location</td>
<td>.51</td>
<td>.18</td>
<td>.29</td>
<td>2.85</td>
<td>.006</td>
</tr>
<tr>
<td>Teacher education faculty evaluation</td>
<td>.67</td>
<td>.20</td>
<td>.35</td>
<td>3.43</td>
<td>.001</td>
</tr>
</tbody>
</table>

The distribution of residuals was adequate, as demonstrated by analysis of the histogram and the normal P-P plot, and there was only one potentially outlying case, the candidate with the highest logit estimate on the LTSJ-B scale, with a LTSJ-B logit estimate of 4.03 and a standardized residual of 3.03.

The final regression solution for the 2009 cohort at the time of graduation is:

\[
\text{Predicted exit LTSJ-B logit estimates} = -1.01 + 0.54(\text{race/ethnicity}) + 0.51(\text{student teaching location}) + 0.67(\text{teacher education faculty evaluation}).
\]

These unstandardized coefficients demonstrate the expected change in exit LTSJ-B logit estimates for a one-unit change in the predictor variables. In this case, for a one-unit change in race/ethnicity (i.e., moving from a candidate who is White to a candidate who is AHANA), candidates’ exit LTSJ-B logit estimates are predicted to increase 0.55 logits. In addition, for every one-unit increase in “student teaching location” (i.e., going from “suburban” to “urban”) candidates’ exit LTSJ-B logit estimates are predicted to increase 0.50 logits. Finally, for
every one-unit increase on the “Teacher education faculty evaluation” subscale, candidates’ exit LTSJ-B logit estimates are predicted to increase 0.67 logits.

The standardized coefficients (β) enable comparison of the magnitude of the effects that the predictor variables have on the outcome variable. In this case, “teacher education faculty evaluation” subscale (β=0.35) has a stronger relationship with candidates’ LTSJ-B logit estimates than either “student teaching location” (β=0.29) or “race/ethnicity” (β=0.22).

These exploratory analyses examined the relationships among the 2009 cohort’s experiences, perceptions, and beliefs about teaching for social justice. These analyses suggest that candidates in the 2009 cohort who self-identified as AHANA tended to have a stronger commitment to teaching for social justice as measured by the LTSJ-B scale, than candidates who self-identified as White. In addition, candidates who completed their student teaching in an urban school tended to have higher exit LTSJ-B logit estimates than those who completed their student teaching in a suburban school. Finally, candidates who agreed that the teacher education faculty were knowledgeable about and structured their courses around the realities of contemporary schools tended to have higher exit LTSJ-B logit estimates than those who did not.

Prior to interpreting the relationships explored among candidates’ experiences, perceptions and beliefs about teaching for social justice, it is important to note that the analyses conducted on the 2009 cohort were exploratory. Accordingly, based on the findings from the 2009 cohort, these analyses were replicated on the 2010 cohort and again on the 2009 and 2010 cohorts combined.
2010 cohort exit analyses

Descriptive statistics on exit survey responses

Prior to analyzing candidates’ beliefs about teaching for social justice, I examined candidates’ experiences and perceptions of teaching at the time of graduation from the program. At the end of their senior year, the 62 teacher candidates in the 2010 cohort looked in many ways similar to the candidates in the 2009 Cohort. The candidates in the 2010 cohort varied across majors. Specifically, 9.7% of candidates completed their teacher preparation in early childhood education, 58.1 % completed their teacher preparation in elementary education, and 32.3% completed their preparation in secondary education. In addition, while the vast majority (88.7%) completed their student teaching in a multicultural setting, their student teaching experiences differed across contexts. In particular, 58.1% of candidates reported that they completed their student teaching in a suburban setting, while 40.3% of candidates reported that they completed their student teaching in a urban setting. Additionally, most candidates completed their student teaching in public schools (77.4%), while the rest completed their student teaching in either private independent (3.2%) or Catholic schools (19.4%). Finally, the majority of candidates (88.7%) completed their student teaching in a co-educational setting, however a small minority completed their student teaching in all-male (1.6%) or all-female (8.1%) schools.

Like their peers in the 2009 cohort, candidates in the 2010 cohort overwhelmingly rated their teacher education programs favorably and were highly satisfied with aspects of
their program, such as their student teaching experience and the feedback they received from their cooperating teachers. Like the 2009 cohort, in comparison to other aspects of their program, candidates in the 2010 cohort were less favorable about the advice they received from their Arts and Sciences advisor, and their inquiry seminar in the teacher education program.

From these analyses it appears that the candidates in the 2010 cohort were much like the candidates in the 2009 cohort, and their predecessors in the Boston College teacher education program (Ludlow, Pedulla, et al., 2008). In fact, the two cohorts significantly differed on only a few of the items on the exit survey. In particular, the 2010 cohort was significantly more favorable about their preparation to conduct inquiry and read IEPs and accommodate students. Furthermore, candidates in the 2010 cohort rated their practicum syllabus, teacher preparation courses, and the evidence binder (a requirement of the student teaching experience) significantly more favorably than the 2009 cohort. In contrast, the 2009 cohort was more favorable about its preparation to work with students of different socio-economic backgrounds. Despite these small differences, the two cohorts were more similar to each other and other graduating cohorts than they were different.

In the following sections, I examine candidates’ beliefs about teaching for social justice and how these perceptions and prior experiences are related to their beliefs about social justice at the time of graduation from the program.
**Descriptive statistics on LTSJ-B scale**

To examine the 2010 cohort’s beliefs about teaching for social justice at the end of their teacher preparation program, a series of descriptive and Rasch rating scale analyses were conducted. For the 2010 cohort, teacher candidates’ mean raw scale scores on the twelve-item LTSJ-B scale is 3.95/5.00, almost identical to the mean raw scale score for the 2009 cohort, moderately endorsing (mean score of 4.0/5.0) the teaching for social justice principles and practices described in twelve items on the LTSJ-B scale. Across candidates, mean LTSJ-B scale scores ranged from 2.67/5.0, between moderately rejecting and responding “uncertain” to the concepts outlined in the LTSJ-B scale, to 4.75/5.0, closest to strongly endorsing the concepts and principles described in the scale. The distribution of candidate LTSJ-B scale scores is roughly normal.

The responses to the twelve items of the LTSJ-B scale generated a reliability estimate, as measured by Cronbach’s alpha, of 0.68, similar to the reliability estimate on the 2009 cohort, as well as previous analyses on the LTSJ-B scale (Ludlow, Enterline, et al., 2008). Two items (SJ4 and SJ7), if removed, would slightly increase the reliability estimate of the scale to 0.69. The corrected item-total correlations produced all positive correlations, ranging from 0.04 (Item 4) to 0.48 (3R).

Raw item means ranged from a low of 2.79/5.0 (closest to “uncertain”) for item 12R, “Realistically, the job of a teacher is to prepare students for the lives they are likely to lead” to a high of 4.76/5.0 on item 4 (closest to strongly endorsing), “Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.”
Additionally, the item means ranged from “uncertain” to strongly endorsing the concepts and principles described on the scale. Specifically, on average, candidates in the 2010 cohort fell between moderately or strongly endorsing seven items (4, 1, 8, 9R, 7, 2, 5R) on the LTSJ-B scale. On four items (6R, 10R, 3R, 11R) candidates fell somewhere between moderately endorsing and responding “uncertain” to the teaching for social justice concepts presented in the items. On the most difficult to endorse item, candidates on average were closest to “uncertain” about the concepts presented in the item (12R).

*Rasch rating scale analyses on LTSJ-B scale*

Candidates’ LTSJ-B scale scores were converted to logit estimates. The mean cohort estimate for the 2010 cohort at the time of graduation was +1.29 (S.D.=0.79). Individual logit estimates range from a low of -0.45 to a high of +3.35 logits. The distribution of individual exit LTSJ-B logit estimates was roughly normally distributed. Because the items were anchored, the item estimates (locations of the items) are identical to the item estimates for the previous analyses.

Like the candidates in the 2009 cohort, candidates in the 2010 cohort’s beliefs aligned with most of the concepts and principles of teaching for social justice outlined in the LTSJ-B scale at the time of graduation. Like their peers in the 2009 cohort, for the majority of the items on the scale, on average, candidates in the 2010 cohort moderately or strongly endorsed the concepts and principles described in the LTSJ-B scale. They were only “uncertain” about the most controversial and hardest to endorse item, SJ12R,
that addresses concepts of challenging school and societal structures that perpetuate inequity.

**Correlational analyses**

To identify candidates’ experiences and perceptions that are related to their beliefs about and commitment to social justice at the time of graduation from the program, a series of correlational analyses was replicated, examining the relationship between the logit estimates produced on the LTSJ-B scale and the candidates’ responses to the scales and items on the exit survey. These analyses examined the relationship among candidates’ reported experiences, perceptions, and their beliefs about teaching for social justice, as measured by the their responses to the LTSJ-B scale. Correlational analyses were replicated on the scales and items that were significant at the alpha level, p<0.1. Accordingly, correlational analyses were conducted on one subscale: “Teacher education evaluation.” The “Teacher education evaluation” subscale was not significantly related to candidates’ exit LTSJ-B logit estimates (r=0.14, p>0.1).

Further analyses examined the relationship among the items on the 2010 exit survey and the exit LTSJ-B logit estimates. Correlational analyses were conducted at the item-level grouping items by scale or by overarching concept. Specifically, correlational analyses were conducted on the 13 items significantly correlated with candidates’ exit LTSJ-B logit estimates (at the alpha level p<0.1) from the 2009 cohort. These correlations are presented below:

**Preparation for classroom teaching**
- Inquiry
  - Handle uncertainty (r=0.08, p=0.56)
• Diversify lessons to meet special needs (r=0.04, p=0.78)
• Read and understand IEPs and provide accommodations (r=0.02, p=0.86)

- Teaching and Learning
  • Read and understand 504 plans and provide accommodations (r=-0.01, p=0.94)
  • Plan stimulating lessons (r=0.20, p=0.12)
  • Teach content knowledge (r=0.12, p=0.34)
  • Use educational technology (r=0.01, p=0.97)

BC Evaluation
• A&S Evaluation
  • Arts and Science faculty knew very little about the realities of contemporary schools (Recoded) (r=0.34, p<0.01)**

• TE Evaluation
  • Teacher education faculty knew very little about the realities of contemporary schools (Recoded) (r=0.35, p<0.01)**
  • Teacher education faculty structure their courses around real problems in schools (r=-0.08, p=0.56)

Student teaching context
  • Student teaching location (r=0.37, p=0.003)**

Demographic characteristics (e.g., gender, race/ethnicity)
  • Gender (r=-0.04, p=0.75)
  • Race/ethnicity (r=0.13, p=0.34)

** Indicates significance at the p<0.01 level.

Of the 13 correlational analyses explored, 3 items were significantly correlated with candidates’ exit LTSJ-B logit estimates at the p<0.01 level. These items include: Arts and Sciences faculty knowledge of the realities of contemporary schools (r=0.34, p<0.01); teacher education faculty knowledge of the realities of contemporary schools (r=0.35, p<0.01); and student teaching location (r=0.37, p<0.01).

The correlational relationships among “Arts and Sciences faculty knowledge of contemporary schools,” “Teacher education faculty knowledge of contemporary schools,” student teaching location, and the exit LTSJ-B logit estimates were subsequently explored and are presented in Table 5.6. The exit LTSJ-B logits estimates
are significantly correlated with candidates’ reported perceptions in these areas.

Additionally, candidates’ perceptions of the Arts and Sciences faculty knowledge of schools and their perceptions of teacher education faculty knowledge of schools are also significantly correlated ($r=0.52$, $p<0.01$).

Table 5.6. Relationships among 2010 exit LTSJ-B logit estimates, A&S faculty knowledge of schools, teacher education faculty knowledge of schools, and student teaching location

<table>
<thead>
<tr>
<th></th>
<th>LTSJ-B logit estimates</th>
<th>A&amp;S faculty knowledge of contemporary schools</th>
<th>Teacher education faculty knowledge of contemporary schools</th>
<th>Student teaching location</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTSJ-B logit estimates</td>
<td>1</td>
<td>0.34**</td>
<td>0.35**</td>
<td>0.37**</td>
</tr>
<tr>
<td>A&amp;S faculty knowledge of contemporary schools</td>
<td>---</td>
<td>1</td>
<td>0.52**</td>
<td>0.08</td>
</tr>
<tr>
<td>Teacher education faculty knowledge of contemporary schools</td>
<td>---</td>
<td>1</td>
<td></td>
<td>0.09</td>
</tr>
<tr>
<td>Student teaching location</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

* Indicates significant at the $p<0.05$ level  
** Indicates significance at the $p<0.01$ level

The relationships between “Arts and Science faculty knowledge of contemporary schools,” “Teacher education faculty knowledge of contemporary schools,” student teaching location, and the exit LTSJ-B logit estimates are further explored below.

*Arts and Science faculty knowledge of contemporary schools* ($r=0.34$, $p<0.01$). On the Arts and Science faculty evaluation subscale, candidates are asked a series of items about the faculty and courses that they took in the Arts and Sciences at Boston College.
One item asks candidates to rate their level of endorsement to the statement “The A&S faculty knew very little about the reality of contemporary schools” with response options including, “strongly disagree,” “disagree,” “agree,” and “strongly agree,” ranging from 1-4, respectively. The item was then recoded so that the response option “strongly disagree” is the most favorable response. Candidates who agreed that the faculty in the Arts and Sciences had knowledge of the realities of the contemporary schools (i.e., disagreed that they had little knowledge), also tended to have higher exit LTSJ-B logit estimates (i.e., a stronger commitment to teaching for social justice).

The scatter plot in Figure 5.6 below demonstrates the graphical representation of the relationship between candidates’ scores on the “Arts and Sciences faculty knowledge of contemporary schools” and their exit LTSJ-B logit estimates. All candidates fall within the 95% confidence interval, except for two candidates. The individual with the highest exit LTSJ-B logit estimate moderately endorsed the statement that the Arts and Sciences faculty had knowledge of contemporary schools, while the candidate with the lowest exit LTSJ-B estimate moderately rejected that the Arts and Sciences faculty have knowledge of contemporary schools.
**Teacher education knowledge of contemporary schools** \( (r=0.35, p<0.01) \): On the teacher education faculty evaluation subscale, candidates are asked a series of items about the faculty and courses that they took in the teacher education program. One item asks candidates to rate their level of endorsement to the statement “The teacher education faculty knew very little about the reality of contemporary schools” with response options including, “strongly disagree,” “disagree,” “agree,” and “strongly agree,” ranging from 1-4, respectively. The item was then recoded so that the response option “strongly disagree” is the most favorable response. Candidates who agreed that the faculty in the teacher education had knowledge of the realities of the contemporary schools (i.e., disagreed that they had little knowledge), also tended to have higher exit LTSJ-B logit estimates (i.e., a stronger commitment to teaching for social justice) than those who disagreed.

The scatter plot in Figure 5.7 demonstrates the graphical relationship between
candidates’ scores on the “teacher education faculty knowledge of contemporary schools” item and their exit LTSJ-B logit estimates. All candidates fall within the 95% confidence interval, except for the three candidates with the highest exit LTSJ-B logit estimates, who moderately and strongly endorsed that teacher education faculty have knowledge of the realities of contemporary schools.

Figure 5.7. Simple relationship between 2010 cohort teacher education faculty knowledge of contemporary schools and exit LTSJ-B logit estimates

Student teaching location (r=0.37, p<0.01). Candidates were asked to describe the location of the school in which they did their student teaching. Response options include “suburban,” “urban,” and “other.” All but one candidate in the 2010 cohort responded to this item. Based on the candidate’s responses to the other items on the exit survey, the missing response was replaced with “suburban” location. Candidates who reported that they did their student teaching in an urban location, tended to have higher exit LTSJ-B logit estimates than those who reported that they completed their student teaching in a “suburban” location. Figure 5.8 demonstrates the graphical relationship between “student
teaching location” and candidates’ exit LTSJ-B logit estimates. Interestingly, while the candidate with the highest exit LTSJ-B logit estimate completed his or her student teaching in an urban location, the candidate with the second highest exit LTSJ-B logit estimated completed his or her student teaching in a suburban location.

*Figure 5.8.* Simple relationship between 2010 cohort student teaching location and exit LTSJ-B logit estimates

Multiple regression analyses

As previously discussed, the distribution of individual exit LTSJ-B logit estimates on the 2006 exit survey for the 2010 cohort is roughly normally distributed. All 62 candidates responded to the item on teacher education faculty knowledge of contemporary schools. All but one student responded to student teaching location. Only 59 candidates responded to the item on A&S faculty knowledge of contemporary schools. The missing data were replaced with the mean of the items.

Exploratory models were built to include all three items (i.e., student teaching location, teacher education faculty knowledge, and Arts and Sciences faculty
knowledge). Despite the significant correlation between “Arts and Sciences faculty knowledge of contemporary schools” and exit LTSJ-B logit estimates, the item on “Arts and Sciences faculty knowledge of contemporary schools” was not included in the subsequent regression analyses because of its significant correlation with teacher education faculty knowledge of contemporary schools. Accordingly, the exit LTSJ-B logit estimates were regressed on “teacher education location” and “teacher education knowledge of contemporary schools.”

In the final model, the overall regression for the 2010 cohort of exit LTSJ-B logit estimates on “teacher education faculty knowledge of contemporary schools” and “student teaching location” the overall model accounted for a significant 24.6% of the variance in exit LTSJ-B logit estimates \([R^2=0.246, F(2,59)=9.61, p<0.001]\). Both items contributed a significant portion of additional variance. When “student teaching location” was entered into the model, it contributed 14.4% of the variance. In addition, when teacher education faculty knowledge was entered into the model, it contributed an additional 10.1% of the variance.

In the final model the magnitude of the partial regression coefficient for “student teaching location” \((b=0.57, \beta=0.35, t=3.10, p<0.01)\) is statistically significant. In addition, the magnitude of the partial regression coefficient for “teacher education faculty knowledge” \((b=0.35, \beta=0.32, t=2.82, p<0.01)\) is also statistically significant. Table 5.7 presents the model summary.
Table 5.7. Summary of multiple regression analysis for variables predicting 2010 cohort exit LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.05</td>
<td>0.41</td>
<td>-0.11</td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td>Student teaching location</td>
<td>0.57</td>
<td>0.18</td>
<td>0.35</td>
<td>3.10</td>
<td>0.003</td>
</tr>
<tr>
<td>Teacher education faculty knowledge</td>
<td>0.35</td>
<td>0.13</td>
<td>0.32</td>
<td>2.82</td>
<td>0.007</td>
</tr>
</tbody>
</table>

The distribution of residuals was adequate, as demonstrated by an analysis of the histogram the normal P-P plot. No points were identified as potentially influential, and the VIF statistic was close to one, indicating minimal multicollinearity.

The final regression solution for the 2010 cohort at the time of graduation from the program is: Predicted exit LTSJ-B logit estimates = -0.05 +0.57(Student teaching location + 0.35(Teacher education faculty knowledge). For a one-unit increase on student teaching location (moving from a suburban to an urban location), there is an estimated 0.57 increase in exit LTSJ-B logit estimates. Additionally, for every one-unit increase in candidates’ endorsement that teacher education faculty knew the realities of contemporary schools (e.g., moving from “disagree” to “strongly disagree”), there is a predicted 0.35 increase in their exit LTSJ-B logit estimate.

The standardized Beta coefficients demonstrate the magnitude of the effect of the predictor variable on candidates’ exit LTSJ-B logit estimates. As demonstrated by the Beta coefficients, the “student teaching location” has a similar relationship with candidates’ exit LTSJ-B logit estimates (β=0.35) as teacher education faculty knowledge of contemporary schools (β=0.32) with the LTSJ-B logit estimates.

These analyses suggest that for the 2010 cohort, candidates’ beliefs about teaching for social justice, as measured by the LTSJ-B scale were related to their
perceptions of teacher education faculty’s knowledge of contemporary schools. In addition, those who reported having a student teaching placement in an urban school also tended to have a stronger commitment to principles and concepts of teaching for social justice outlined in the LTSJ-B scale.

Given the similarities between the candidates in the 2009 and 2010 cohorts, a third series of analyses was conducted combining candidates’ responses across cohorts. Combining cohorts increased the sample size for the subsequent analyses and allowed for further examination of teacher candidates’ beliefs about teaching for social justice, and the experiences and perceptions that may be related to their beliefs.

**Combined cohort exit analyses**

*Descriptive statistics on LTSJ-B scale*

To examine the 2009 and 2010 cohorts’ combined beliefs about teaching for social justice at the time of graduation from the program, descriptive and Rasch rating scale analyses were conducted. Across both cohorts, teacher candidates’ mean raw scale scores on the twelve-item LTSJ-B scale is 3.97/5.00, moderately endorsing (mean score of 4.0/5.0) the teaching for social justice principles and practices described in twelve items on the LTSJ-B scale. Across candidates, mean LTSJ-B scale scores range from 2.67/5.0 (moderately rejecting the concepts and principles outlined on the scale) to 4.92/5.0. The distribution of candidate LTSJ-B scale scores is roughly normal, as presented in Figure 5.9.
The responses to the twelve items of the LTSJ-B scale generated a reliability estimate, as measured by Cronbach’s alpha, of 0.71. As previously mentioned, this reliability estimate is consistent with previous analyses on the LTSJ-B scale (e.g., Enterline, Ludlow, et al., 2008; Ludlow, Enterline, et al., 2008). One item (4), if removed, would increase the reliability estimate of the scale. The corrected item-correlations produced all positive correlations, ranging from 0.07 (Item 4) to 0.52 (5R).

Raw item means ranged from a low of 2.90/5.0 (close to uncertain) for item 12R, “Realistically, the job of a teacher is to prepare students for the lives they are likely to lead” to a high of 4.73/5.0 on item 4, “Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.”
Rasch rating scale analyses on LTSJ-B scale

Across cohorts, the mean exit LTSJ-B logit estimate was +1.31 (S.D.=0.81). Individual exit LTSJ-B logit estimates range from a low of -0.45 to a high of +4.63 logits. The distribution of individual exit LTSJ-B logit estimates was approximately normal.

Across both cohorts, on average, the mean exit LTSJ-B logit estimate was almost identical. The 2009 cohort had a mean scale exit LTSJ-B logit estimate of 1.34, the 2010 cohort had a mean scale logit estimate of 1.29, and combined candidates across both cohorts had a mean logit estimate of 1.31. These estimates are slightly lower than previous analyses on graduating undergraduate teacher candidates, in which candidates mean logit estimates were between 1.36 and 1.44 (Enterline, et al., 2008). However, across cohorts and analyses, the estimates correspond to the same level of beliefs about teaching for social justice. On average, across cohorts, candidates demonstrated the same response patterns on the 12 items on the LTSJ-B scale. Specifically, across cohorts, candidates had a 0.5 probability of scoring “5” or strongly endorsing the easiest to endorse items on the scale: SJ1 examining their underlying beliefs about race, culture, and teaching; and SJ4 incorporating diverse cultures in teaching. In addition, candidates had a 0.5 probability of scoring “4” or moderately endorsing the concepts and principles outlined in 8 items: SJ2, SJ7, SJ8, SJ3R, SJ9R, SJ6R, 10R and 5R. Candidates had a 0.5 probability of scoring a “3” or responding uncertain to two items: SJ11R and SJ12R. Figure 5.10 presents the mean cohort exit LTSJ-B logit estimates.
The Rasch-Thurstone variable map also provides an opportunity to compare differences in degrees of beliefs. At the time of graduation, Hillary, the candidate described at the beginning of the chapter, had an exit LTSJ-B logit estimate of +0.42, lower than the average cohort estimate. At +0.42 logits, Hillary had a 0.5 probability of scoring “5” or strongly endorsing the two easiest to endorse items of the scale (SJ1, SJ4). She had a 0.5 probability of scoring “4” or moderately endorsing six items (SJ2, SJ7, SJ8, SJ6R, SJ3R, SJ9R). She has a 0.5 probability of scoring “3,” or being uncertain about two items (SJ10R, SJ5R). She also had a 0.5 probability of scoring “2,” or moderately rejecting the two most difficult to endorse items on the scale (SJ11R, and SJ12R). In contrast, Michelle, also described at the beginning of the chapter, had an exit LTSJ-B logit estimate of +2.09, higher than the average cohort estimate. At +2.09, she had a 0.5
probability of scoring “5,” or strongly endorsing, five items (SJ1, SJ4, SJ7, SJ2, SJ8). Michelle had a 0.5 probability of scoring “4,” or moderately endorsing the remaining seven items (SJ9R, SJ6R, SJ3R, SJ10R, SJ11R, and SJ12R). In other words, Michelle endorsed all of the concepts and principles described in the LTSJ-B scale.

Together these analyses suggest that although candidates varied in their endorsement of the concepts and principles outlined on the LTSJ-B scale, on average, they were familiar with and endorsed most of the items on the scale, while being uncertain about only the most controversial items. In their study on masters level teacher candidates, Cochran-Smith and colleagues (Cochran-Smith, Shakman, et al., 2009) found that although graduates of a social justice-oriented teacher education program tended to discuss micro-level issues, they seldom referred to larger critiques of school and society. These larger macro-level issues are the ones about which candidates in this study, on average, tended to respond that they were “uncertain.”

At the end of their senior year in college, the candidates’ beliefs about teaching for social justice are not unexpected. These candidates had four years of coursework, field experiences, and practica in a school with an explicit mission of teaching for social justice. Accordingly, they had multiple opportunities to learn more about the complexities of teaching for social justice and the roles they have to play as teachers and advocates for change. However, these candidates also varied in terms of their endorsement of and commitment to the principles and concepts outlined in the LTSJ-B scale. In the following section, I explore what factors were related to their beliefs about teaching for social justice.
Correlational analyses

At the cohort level, certain experiences and perceptions were related to each cohort’s beliefs about teaching for social justice. In particular, candidates’ perceptions of the teacher education faculty’s knowledge of the realities of contemporary schools and their reported student teaching location were related to their beliefs about teaching for social justice. In addition, for the 2009 cohort, candidates’ race was significantly related to their beliefs about teaching for social justice.

The following analyses examined these relationships when both cohorts were combined. Correlational analyses were replicated on the scales and items that were significant at the alpha level $p<0.1$. Specifically, I examined the linear relationship between candidates’ exit LTSJ-B logit estimates and the “Teacher education faculty evaluation” subscale. The “Teacher education faculty evaluation” subscale was significantly correlated with the exit LTSJ-B logit estimates ($r=0.26$, $p<0.01$).

Further analyses examined the relationship among the items on the 2009 exit survey and the exit LTSJ-B logit estimates. Correlational analyses were conducted at the item-level grouping items by scale or by overarching concept. Specifically, correlational analyses were conducted on the 13 items significantly correlated with candidates’ exit LTSJ-B logit estimates (at the $p<0.1$ level) from the 2009 cohort. These correlations include:

Preparation for classroom teaching
- Inquiry
  - Handle uncertainty ($r=0.14$, $p=0.12$)
  - Diversify lessons to meet special needs ($r=-0.12$, $p=0.17$)
  - Read and understand IEPs and provide accommodations ($r=-0.12$, $p=0.15$)
• Teaching and Learning
  o Read and understand 504 plans and provide accommodations (r=-0.11, p=0.20)
  o Plan stimulating lessons (r=-0.06, p=0.51)
  o Teach content knowledge (r=-0.06, p=0.50)
  o Use educational technology (r=-0.13, p=0.14)

BC Evaluation
• A&S Evaluation
  o Arts and Science faculty knew very little about the realities of contemporary schools (Recoded) (r=0.29, p=0.001)**

• TE Evaluation**
  o Teacher education faculty knew very little about the realities of contemporary schools (Recoded) (r=0.35, p<0.001)**
  o Teacher education faculty structure their courses around real problems in schools (r=0.07, p=0.38)

Student teaching context
  o Student teaching location (r=0.35, p<0.001)**

Demographic characteristics (e.g., gender, race/ethnicity)
  o Gender (r=-0.12, p=0.18)
  o Race/ethnicity (r=0.23, p=0.007)**

** Indicates significance at the p<0.01 level.

Of the 13 correlational analyses explored, 4 items were significantly correlated with candidates’ LTSJ-B logit estimates at the alpha level, p<0.01. These items included one item captured on the “teacher education faculty evaluation” subscale and three additional items: Arts and Sciences faculty knowledge of contemporary schools (r=0.29, p=0.001); student teaching location (r=0.35, p<0.001); and candidates’ reported race ethnicity. It is interesting to note that candidates’ responses to the item pertaining to candidates’ endorsement of their “teacher education faculty knowledge of contemporary schools” is the only item on the “teacher education faculty evaluation” subscale significantly correlated with candidates’ exit LTSJ-B logit estimates.

The relationships among candidates’ exit LTSJ-B logit estimates and “Teacher education faculty evaluation” subscale, “Teacher education faculty knowledge of
contemporary schools,” “Arts and Sciences faculty knowledge of contemporary schools,” student teaching location, and candidates’ reported race ethnicity are explored in Table 5.8.

Table 5.8. Relationships among combined cohort exit LTSJ-B logit estimates and items and scales on the exit survey

<table>
<thead>
<tr>
<th></th>
<th>LTSJ-B logit estimates</th>
<th>Teacher education faculty evaluation subscale</th>
<th>Teacher education faculty knowledge of contemporary schools</th>
<th>A&amp;S faculty knowledge of contemporary schools</th>
<th>Student teaching location</th>
<th>Race/ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTSJ-B logit estimates</td>
<td>1</td>
<td>0.26**</td>
<td>0.35**</td>
<td>0.29**</td>
<td>0.35**</td>
<td>0.23**</td>
</tr>
<tr>
<td>Teacher education faculty evaluation subscale</td>
<td>---</td>
<td>1</td>
<td>0.65**</td>
<td>0.27**</td>
<td>-0.001</td>
<td>0.03</td>
</tr>
<tr>
<td>Teacher education faculty knew the realities of contemporary schools</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>0.36**</td>
<td>0.06</td>
<td>0.02</td>
</tr>
<tr>
<td>A&amp;S faculty knowledge of contemporary schools</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>-0.01</td>
<td>0.14</td>
</tr>
<tr>
<td>Student teaching location</td>
<td>---</td>
<td>---</td>
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<td>---</td>
<td>1</td>
<td>0.14</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
</tr>
</tbody>
</table>

* Indicates significant at the p<0.05 level
** Indicates significance at the p<0.01 level

The exit LTSJ-B logits estimates are significantly correlated with candidates’ reported perceptions in these areas. Additionally, the “teacher education faculty evaluation” subscale, “teacher education faculty knowledge of contemporary schools” and “Arts and Sciences faculty knowledge of contemporary schools” are also significantly intercorrelated a the p<0.01 level. It is not surprising that candidates’ responses to the
item on teacher education faculty knowledge of contemporary schools are related to candidates’ scale scores on the “teacher education faculty” scale, as the item is captured in the subscale. It is surprising, however, that candidates’ evaluation of the Arts and Sciences faculty is related to their evaluation of the teacher education faculty. These relationships are further explored below.

*Teacher education faculty evaluation subscale* \((r=0.26, p<0.01)\). Candidates who had higher scores on the “Teacher education faculty evaluation” subscale, agreeing with statements such as the teacher education faculty were involved with school and youth, knew about the realities of contemporary schools, and structured their courses around the real problems of teaching practice, also tended to have higher exit LTSJ-B logit estimates. In other words, those who believed that the faculty were knowledgeable about schools and youth and structured their courses accordingly, tended to have a stronger commitment to teaching for social justice, as measured by the LTSJ-B scale, than those who disagreed.

The scatter plot in Figure 5.11 demonstrates the graphical relationship between candidates’ scores on the “Teacher education faculty evaluation” subscale and their exit LTSJ-B logit estimates. Looking at the scatter plot, there appears to be a positive, linear relationship between candidates’ exit LTSJ-B logit estimates and their scores on the “Teacher education faculty” subscale. Seven candidates fall outside of the 95% confidence interval. Specifically the five candidates with the highest exit LTSJ-B logit estimates (highest commitment to teaching for social justice), ranged in their endorsement of the teacher education faculty subscale from moderately rejecting the
statements on the scale to strongly endorsing the statements on the scale. Additionally, the candidates with the lowest exit LTSJ-B estimates moderately endorsed the items on the teacher education faculty evaluation subscale.

*Figure 5.11.* Simple relationship between combined cohort teacher education faculty evaluation subscale and exit LTSJ-B logit estimates

![scatter plot](image)

*Teacher education knowledge of contemporary schools* ($r=0.35$, $p<0.01$). Candidates who agreed that the faculty in teacher education had knowledge of the realities of contemporary schools (i.e., disagreed that they had little knowledge) also tended to have higher exit LTSJ-B logit estimates (i.e., a stronger commitment to teaching for social justice), than those who disagreed.

The scatter plot in Figure 5.12 demonstrates the relationship between candidates’ scores on the “teacher education faculty knowledge of contemporary schools” and their LTSJ-B logit estimates. All candidates fall within the 95% confidence interval, except for six candidates with higher than expected exit LTSJ-B logit estimates, who varied in their agreement that the teacher education faculty had knowledge of the realities of
contemporary schools.

*Figure 5.12. Simple relationship between combined cohort teacher education knowledge of contemporary schools and exit LTSJ-B logit estimates*

*Arts and Sciences faculty knowledge* \( (r=0.29, p<0.01) \). Candidates who agreed that the Arts and Sciences faculty had knowledge of the realities of contemporary schools tended to have higher LTSJ-B logit estimates. Figure 5.13 demonstrates the relationship between “Arts and Sciences faculty knowledge” and candidates’ exit LTSJ-B logit estimates. Four candidates fall outside the 95% confidence interval, three of who had higher than expected exit LTSJ-B logit estimates and one who had a lower than expected exit LTSJ-B logit estimate. Interestingly, two of the candidates with higher than expected exit LTSJ-B logit estimates moderately rejected the idea that the Arts and Sciences faculty had knowledge of the realities of contemporary schools, while the third moderately endorsed the concept. The candidate with the lowest exit LTSJ-B logit estimate also rejected the idea that the Arts and Sciences faculty had knowledge of contemporary schools.
Figure 5.13. Simple relationship between combined cohort Arts and Sciences faculty knowledge of contemporary schools and exit LTSJ-B logit estimates

Student teaching location \( (r=0.35, p<0.01) \). Candidates who reported that they did their student teaching in an urban location tended to have higher exit LTSJ-B logit estimates than those who reported that they completed their student teaching in a suburban location. Figure 5.14 demonstrates the graphical relationship between “student teaching location” and candidates’ exit LTSJ-B logit estimates. Five candidates fall outside the 95% confidence interval. Specifically, the candidate with the lowest exit LTSJ-B logit estimate completed her student teaching placement in a suburban location. In addition, two candidates with higher than expected exit LTSJ-B logit estimates completed their student teaching location in a suburban location, while the candidate with the highest exit LTSJ-B logit estimate completed her student teaching placement in an urban location.
**Figure 5.14.** Simple relationship between combined cohort student teaching location and exit LTSJ-B logit estimates.

*Race/ethnicity (r=0.23, p<0.01).* On the 2009 exit survey, candidates were asked to report their race ethnicity. Candidates had the option to select all that apply to the following options: African American; Asian; Black, Caribbean, West Indies; Latino, Hispanic, Puerto Rican; Native American; White; Other. These responses were recoded into non-AHANA (anyone who selected White and no other race/ethnicity), and AHANA (anyone who selected at least one of the options: African American; Asian; Black, Caribbean, West Indies; Latino, Hispanic, Puerto Rican; Native American). However, on the 2010 exit survey, this item was removed, as these data were available from the college-wide database. From the database, students were coded as the following: unknown; Black; American Indian; White; Asian; Hispanic; Other; and “Non-US citizen.” These responses were coded into non-AHANA (anyone who selected White), and AHANA (anyone who selected any of the other options, except for “unknown”).

As depicted in Figure 5.15, candidates who self-identified as AHANA also
tended to have higher exit LTSJ-B logit estimates, or a stronger commitment to teaching for social justice as operationalized by the LTSJ-B scale, than those who identified as White. As demonstrated in the scatter plot below, four students fall outside the 95% confidence interval. The candidate with the highest exit LTSJ-B logit estimate self-identified as AHANA. Two candidates with the higher than expected exit LTSJ-B logit estimates self-identified as White, and the candidate with the lowest exit LTSJ-B logit estimate self-identified also as self-identified as White.

Figure 5.15. Simple relationship between combined cohort race/ethnicity and exit LTSJ-B logit estimates

Multiple regression analyses

As previously discussed, the distribution of individual exit LTSJ-B logit estimates for the 2009 and 2010 cohorts combined is roughly normal. All 134 candidates had exit LTSJ-B exit logit estimates. All 134 candidates had scores for the “Teacher education faculty evaluation” subscale, responded to the item on teacher education faculty knowledge of contemporary schools and reported their race/ethnicity. However, only 132 students reported their location for student teaching as suburban or urban, and only 128
candidates responded to the item about their Arts and Sciences faculty. Based on candidates’ responses to the other items on the exit survey, scores were substituted for the missing data.

Exploratory regression models investigated the relationships of the all of the significant variables and candidates’ exit LTSJ-B logit estimates. Given the significant inter-correlations among the “Teacher education evaluation” subscale and the items “teacher education faculty knowledge of contemporary schools” and “Arts and Sciences faculty knowledge of contemporary schools,” I decided to only include the item on teacher education knowledge of contemporary schools in the regression analysis. After further examination of the teacher education faculty subscale, the only item in the subscale significantly related to candidates’ exit LTSJ-B logit estimates was the teacher education knowledge of contemporary schools item. Furthermore, it has a stronger relationship with candidates’ exit LTSJ-B logit estimates than either the teacher education evaluation subscale or the Arts and Sciences faculty knowledge of contemporary schools.

The remaining items can be grouped into candidates’ identity, perceptions and experiences. Specifically, students’ self-reported race can be categorized as part of their identity, students’ perceptions of their teacher education faculty’s knowledge can be grouped into perceptions, and students’ location of their student teaching placement falls into experiences.

The exit LTSJ-B logit estimates were regressed on race/ethnicity, student teaching placement, and teacher education knowledge of contemporary schools. The overall
regression for the combined cohort of exit LTSJ-B logit estimates on “race/ethnicity,” student teaching placement” and “teacher education faculty knowledge of contemporary schools,” accounted for a significant 26.9% of the variance in LTSJ-B logit estimates \(R^2=0.269, F(3,130)=15.88, p<.001\]. As each predictor was entered into the model, it contributed a statistically significant portion of the variance, with “race/ethnicity” accounting for 5.4% of the variance, “student teaching location” accounting for an additional 10.9% of the variance, and the “teacher education faculty evaluation” accounting for an additional 10.6% of the variance.

In the final model the magnitude of the partial regression coefficients for “race/ethnicity” \((b= 0.45, \beta=0.18, t= 2.37, p<.05)\), “student teaching location \((b=0.52, \beta=0.32, t=4.15, p<.001)\), and teacher education knowledge of contemporary schools \((b=0.36, \beta=0.33, t=4.33, p<.001)\) are all statistically significant. The VIF statistic was near one, suggesting that there was minimal multicollinearity. Table 5.9 presents the model summary.

Table 5.9. Summary of multiple regression analysis for variables predicting combined cohort exit LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>(\beta)</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-.07</td>
<td>.27</td>
<td>-.24</td>
<td>.81</td>
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<td>Race/ethnicity</td>
<td>.45</td>
<td>.19</td>
<td>.18</td>
<td>2.37</td>
<td>.02</td>
</tr>
<tr>
<td>Student teaching location</td>
<td>.52</td>
<td>.13</td>
<td>.32</td>
<td>4.15</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Teacher education faculty knowledge of</td>
<td>.36</td>
<td>.08</td>
<td>.33</td>
<td>4.33</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The distribution of residuals was adequate, as demonstrated by an analysis of the histogram the normal P-P plot. There was one potentially outlying case, specifically the candidate with the highest exit LTSJ-B logit estimate (logit estimate 4.63 and a standardized residual of 3.27)
The final regression solution for the combined cohorts at the time of entry into the program is: \(\text{Predicted exit LTSJ-B logit estimates} = -0.07 + 0.45(\text{race/ethnicity}) + 0.52(\text{Student teaching location}) + 0.36(\text{Teacher education faculty knowledge of schools}).\)

The unstandardized coefficients demonstrate the expected change in the exit LTSJ-B logit estimates for every one-unit change in the predictor variables. For every one-unit increase in candidates’ race/ethnicity (i.e., moving from White/Non-AHANA to AHANA) there is a predicted 0.45 increase in exit LTSJ-B logit estimates. In addition, for every one-unit increase in candidates’ student teaching location (i.e., moving from suburban to urban), candidates’ exit LTSJ-B logit estimates are expected to increase 0.52. Finally, for every one-unit increase in candidates rating of the extent to which teacher education faculty knew little about the realities of contemporary schools (e.g., moving from “disagree” to “strongly disagree”), candidates’ exit LTSJ-B logit estimates are expected to increase 0.36 logits. When referring back to the Rasch-Thurstone variable map, at any given location, this change could result in a shift in likelihood of endorsing several items on the LTSJ-B scale. For example, from the mean cohort estimate of 1.31, a shift from student teaching in a suburban location to student teaching in an urban location, would result in an expected increase of 0.52, moving to 1.82. This shift would result in a shift in expected candidate response from having a 0.5 probability of being uncertain about item 11R ("Whether students succeed in school depends primarily on how hard they work.") to having a 0.5 probability of moderately endorsing the item, and rejecting the notion of a meritocratic society.

As demonstrated by the Beta coefficients, the teacher education faculty
knowledge of contemporary schools ($\beta=.33$) has a similar relationship with candidates’ LTSJ-B logit estimates as candidates’ student teaching location ($\beta=.32$). The magnitude of the relationship between the candidates’ race/ethnicity and LTSJ-B logit estimates is somewhat weaker ($\beta=.18$).

Looking across cohorts, several patterns emerge. Table 5.10 presents the simple relationships between the predictor variables entered across the multiple regression models for the 2009, 2010, and combined cohorts, and candidates’ exit LTSJ-B logit estimates. Specifically, the items in the gray boxes were entered into the multiple regression models predicting candidates’ exit LTSJ-B logit estimates. Clearly, across cohorts, candidates’ reported student teaching location and their perceptions of their teacher education faculty’s knowledge of contemporary schools were significantly related with their beliefs about teaching for social justice. Furthermore, although the relationship was stronger for the 2009 cohort than the 2010 cohort, across cohorts candidates’ race/ethnicity was also positively related to their beliefs about teaching for social justice.

<table>
<thead>
<tr>
<th></th>
<th>Race/ethnicity</th>
<th>Student teaching location</th>
<th>Teacher education faculty evaluation subscale</th>
<th>Teacher education faculty knowledge (item)</th>
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<td>$r=0.36^{**}$</td>
<td>$r=0.35^{**}$</td>
</tr>
<tr>
<td>2010 cohort</td>
<td>$r=0.13$</td>
<td>$r=0.37^{**}$</td>
<td>$r=0.14$</td>
<td>$r=0.35^{**}$</td>
</tr>
<tr>
<td>Combined cohorts</td>
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<td>$r=0.35^{**}$</td>
<td>$r=0.26^{**}$</td>
<td>$r=0.35^{**}$</td>
</tr>
</tbody>
</table>

* Indicates significant at the $p<0.05$ level
** Indicates significance at the $p<0.01$ level

Open response analyses: Candidates’ descriptions of teaching for social justice

On the 2009 exit survey, candidates were asked to respond to the following question: “How would you explain to someone else the idea of teaching for social
justice? What does it mean?” The purpose of the question was to have candidates clarify, elaborate and expand on their understanding of teaching for social justice at the time of graduation from the Boston College teacher education program. While candidates did not have an opportunity to elaborate in great detail, this question prompted candidates to generate and discuss their own ideas about teaching for social justice. Furthermore, the responses provide evidence to the degree to which candidates’ responses to the LTSJ-B scale aligned with their understanding and definition of teaching for social justice. Although the open response question did not call for a strict definition of teaching for social justice, for the purposes of this research, this question was an attempt to "define" or outline the scope of candidates’ understanding of teaching for social justice. This question was only asked on the 2009 exit survey, and as a result, only the candidates in the 2009 cohort had the opportunity to respond to it. Out of the 72 candidates in the 2009 cohort, 50 (69%) responded to this question.

The coding schemes were drawn from the local, rigorous research conducted by Cochran-Smith and colleagues (Cochran-Smith, Shakman, Jong, Terrell, Barnatt, & McQuillan, 2009), who analyzed Boston College Masters level candidates’ responses to interview questions on “what they said” about teaching for social justice. Specifically, after a first read of candidates’ responses to the question, the themes and codes outlined by Cochran-Smith and colleagues were applied to candidates’ responses. Accordingly, the data were first read on their own terms. During the second reading, I examined the degree to which the codes and themes meshed with those of Cochran-Smith and colleagues (2009). When they did not fit, additional codes emerged from the data. Three
of the four themes from Cochran-Smith et al. were directly applicable to the undergraduate candidates’ responses to the question (student learning, relationships and respect, and teacher as activist). A fourth theme emerged from the data after extensive rereading of the data (opportunity). Additionally, while some of Cochran-Smith et al.’s codes applied to the undergraduates in this study, others seemed more applicable to the data.

The four themes and their eighteen codes are as follows:

- **Student learning**: “Ideas about making sure all [students] learn, preparing [students] accommodating and differentiating instruction, promoting critical thinking, and holding [students] to high expectations” (Cochran-Smith, et al. p. 356)
  - Applying relevant curriculum
  - Accommodating/differentiating instruction
  - Ensuring all students learn
  - Engaging students
  - Promoting multiple viewpoints
  - Preparing students for the future
  - Holding students to high expectations
  - Educating the whole person

- **Opportunities**: Ideas about providing equal or all opportunities to all students to learn and succeed in the classroom (theme emergent from the data)
  - Equal opportunities to all students
• **Relationships and respect**: “Ideas about building relationships with students and their families, developing a culture of respect, and caring for [students]” (Cochran-Smith, et al., 356).
  - Relationships with students
  - Communicating with families
  - Creating a culture of respect
  - Creating a caring environment

• **Teacher as activist**: Ideas about advocating for students, engaging in community work, building coalitions…participating in activism” (Cochran-Smith, et al., 2009, p. 356), as well as recognizing inequities, and addressing inequities in the classroom and beyond.
  - Advocating for students
  - Activism
  - Community work
  - Recognizing inequities
  - Addressing inequities in the classroom and beyond

Most candidates described teaching for social justice as a variety of ideas, “not one thing but…rather a spectrum,” and as a result, their responses fit into a variety of themes and codes. Overall, candidates’ understandings of teaching for social justice tended to parallel their responses to the LTSJ-B scale. Looking back on the 2009 cohort’s mean exit raw scores and logit estimates, candidates strongly and moderately endorsed items dealing with micro-level issues in the classroom such as incorporating diverse
cultures and holding all students to high expectations. However, candidates were less likely to endorse items related to macro issues such as broadly challenging the notion of a meritocratic society and identifying the teacher’s role in changing society. Similarly, in their response to the open-ended question on teaching for social justice, candidates in the 2009 cohort tended to focus on micro-level issues that were within their control in the classroom, rather than approaching the macro-level issues of social justice.

Specifically, based on their responses to this question, the majority (60%) described teaching for social justice in terms of student learning and almost half (48%) described teaching for social justice in terms of providing all students equal opportunities. In contrast, only twenty-six percent of respondents described teaching for social justice in terms of relationships and respect or in terms of activism and recognizing inequity. Each of the themes and examples are presented below. Candidates’ responses were selected to highlight and contextualize the analyses.

**Student learning**

Overwhelmingly, candidates in the 2009 cohort defined teaching for social justice around student learning. Many respondents (40%) described teaching for social justice as implementing differentiated instruction and providing accommodations to meet the needs of all learners. One candidate explained, “Teaching for social justice means holding a commitment to teaching a differentiated curriculum which strives to meet the needs of a diverse group of learners. In an ever-diversifying world, it is critical for teachers to be sensitive to the needs of students with varying cultural, ethnic, and racial backgrounds, as well as students with varying learning disabilities and learning needs.” Another
described teaching for social justice as “making classroom material relevant and accessible for students of all backgrounds and abilities.” A third respondent described, “Teaching for social justice means that teachers have the responsibility to get to know the needs of all of their students and use appropriate methods to teach each diverse student.” These responses are consistent with micro-level issues of teaching for social justice, including meeting the needs of all students and building on students’ cultural, ethnic, linguistic and experiential backgrounds.

Across responses, candidates repeatedly described meeting the diverse strengths and needs of students in their classrooms. This included making the curriculum relevant to students by “teaching excellently, as it's important to preserve the integrity of the subject matter.” Beyond subject matter, for some respondents it also meant ensuring that students are exposed to, appreciate, and critique different cultures and perspectives. As one respondent explained, “It [teaching for social justice] means providing diverse curriculum materials, and presenting multiple viewpoints, not just the dominant one.” Furthermore, for a few candidates it meant viewing and educating the whole person, “teaching the whole person and teaching students of all backgrounds to improve their education and growth as a person.” Like their responses to the LTSJ-B scale, candidates tended to describe teaching for social justice in terms of what they could control, or the micro-level issues of student learning. These ideas are consistent with a teaching for social justice stance.

*Equal opportunities*

Almost half of respondents (48%) described teaching for social justice in terms of
providing equal opportunities to all students and “equal access for all.” In this case, the candidates employed “equity” and “equality” interchangeably, a common misconception that was highlighted in candidates’ responses. Repeatedly, candidates described teaching for social justice as “mak[ing] sure each child in the classroom has the opportunity to receive a high quality education.” In some cases, this meant providing opportunity by acknowledging and building on students’ cultural, linguistic, experiential, and economic backgrounds. However, in other cases, this meant providing opportunity “regardless of” or “despite” students’ gender, socio-economic status, or race. This demonstrates the candidates’ misconceptions of teaching for social justice that were not captured on the LTSJ-B scale, including the notion of being color blind or looking “beyond” students’ race, culture, language and experiences.

*Relationships and respect*

For twenty-six percent of respondents, relationships and respect were key elements to teaching for social justice. For example, one candidate explained, “…Teaching for social justice has a wide variety of meanings, but overall it I feel it has to do with respecting the students and their welcomed differences within the classroom and teaching them to respect not only each other, but others as well.” Another described, “Teaching for social justice means that teachers have the ability, opportunity, and responsibility to teach all students…both the content matter while infusing life lessons such as like treat others as yourself, respect, and responsibility.” A third candidate described, “The emotional aspect of school for students is crucial to understanding that effort must be put forth in the classroom. ALL students must know that their teachers
have faith in them. To me, this is teaching for social justice -- students in my classroom will know that I have faith in their ability to succeed academically.”

Only one candidate described teaching for social justice as developing relationships outside the classroom with parents and other community members. In this case, the candidate touched on parent communication as one of the many aspects of teaching for social justice, explaining “I believe it means that as a teacher you will try your best to provide each student in your classroom the opportunity to learn to their highest potential. You will provide differentiated instruction, teach using varied/multiple strategies, and communicate with the students' families.”

Teacher as activist and recognizing inequities

Approximately one quarter of respondents (26%) described teaching for social justice in terms of macro-level issues such as recognizing larger societal inequities in the classroom, or becoming an advocate for students and an activist for change. Specifically, for sixteen percent of respondents, this meant recognizing and addressing societal inequities. As one respondent wrote, “teaching for social justice means being a conscious educator, one who strives to explicitly teach students about injustices in our society and help them find ways to work towards change.” However, only two candidates described teaching for social justice in terms of advocating for students, with one explaining, “teaching is inherently moral, and the teacher upholds certain responsibilities as a public servant. He or she is there, first and foremost, for the students.” In fact, these responses were not commonly expressed across candidates in the 2009 cohort. Notably absent from candidates’ responses were any descriptions of challenging the cannon, making
connections to oppression, challenging stereotypes, or breaking down race and class barriers that exist within and outside of the educational system. Furthermore, like the masters level candidates in the Cochran-Smith, et al. (2009) study, there was a lack of “critical and activist perspectives” (p. 362).

**Summary**

These analyses support the conceptual literature on teacher education for social justice (Cochran-Smith, Shakman, et al., 2009; Shakman, 2009; Zeichner, 2009). In particular, candidates’ reported location of their student teaching was related to their beliefs about teaching for social justice. Specifically, candidates who completed their student teaching in an urban setting tended to have stronger beliefs about teaching for social justice than candidates who completed their student teaching experience in an urban location. Furthermore, candidates of color (identified in this study as AHANA) tended to have a stronger commitment to teaching for social justice than their White peers. Finally those who agreed that their teacher education faculty had knowledge of contemporary schools tended to have higher scores on the LTSJ-B scale. However, this study attempts to make no causal claims. Based on these analyses, it is unclear whether one variable, such as student teaching location, strengthened candidates’ commitment to teaching for social justice, whether those who had strong commitment to teaching for social justice requested student teaching placements in urban schools, or whether the relationship between the two variables was mutually reinforcing. However, these analyses identified specific characteristics of candidates’ identities, their experiences and perceptions that were related to their beliefs about teaching for social justice.
In Chapter 6, I look across time to analyze candidates’ change (or lack thereof) in beliefs about teaching for social justice from the time of entry into the program to the time of graduation.
CHAPTER SIX: CHANGING BELIEFS ABOUT TEACHING FOR SOCIAL JUSTICE FROM ENTRY TO EXIT

Hillary and Michelle entered Boston College with different beliefs about teaching for social justice. When they graduated, they also had different beliefs about teaching for social justice compared to each other and their peers. However, from the time they started at Boston College to the time they graduated, their beliefs about teaching for social justice had changed. By the end of the program, both had more deeply held beliefs about teaching for social justice as compared to when they started the program. Both were more likely to endorse concepts and principles outlined on the LTSJ-B scale. Yet the degree to which Hillary and Michelle changed their beliefs differed. For example, Hillary, whose LTSJ-B scores at entry and exit were lower than her peers, explained, “It is not that my beliefs about teaching for social justice have changed, it’s more that now I know how to teach for social justice.” Furthermore, as demonstrated by her responses to the items on the LTSJ-B scale, the change in Hillary’s beliefs about teaching for social justice over the course of the teacher education program was somewhat less than her peers. As measured by the difference in her entry LTSJ-B and exit LTSJ-B logit estimates, Hillary’s LTSJ-B scores increased 0.49 logits from the beginning of her freshman year to the end of her senior year. However, Michelle’s change in beliefs, on the other hand, was somewhat greater than her peers. As measured by the difference in the entry and exit LTSJ-B logit estimates, Michelle’s LTSJ-B scores increased 1.35 logits from the beginning of her freshman year to the end of her senior year.
At the end of their senior year, what experiences prior to and during, as well as perceptions at the beginning and end of their teacher education program, if any, differentiated Hillary and Michelle and their peers in terms of their change in beliefs about and commitment to teaching for social justice? The analyses presented in Chapter 6 address the third research question: How do teacher candidates’ beliefs about teaching for social justice change and develop from the time of entry into the program to the time of graduation? What experiences and perceptions about teaching and preparedness are related to a change in beliefs about teaching for social justice?

To examine the relationship among teacher candidates’ perceptions, experiences and change in beliefs about teaching for social justice, I modified the multi-step analysis plan followed in Chapters 4 and 5. First, I analyzed a change in candidates’ responses to the LTSJ-B scale through descriptive and inferential statistics as well as Rasch rating scale analyses. Second, I conducted correlational analyses, exploring the relationship among survey scales, items, and candidates’ logit estimates on the exit LTSJ-B scale, looking at change in terms of identifying significant predictors beyond candidates’ initial beliefs. Third, I built multiple regression models to examine these relationships. This series of analyses was conducted first on the 2009 cohort, then on the 2010 cohort. Fourth, I combined cohorts and replicated the analyses. Finally, I analyzed candidates’ responses to two open response questions added that pertained specifically to candidates’ change in beliefs about teaching for social justice.
2009 cohort change analyses

Examining change: LTSJ-B raw scale descriptive and inferential statistics

To examine the 2009 cohort’s change in beliefs about teaching for social justice across time, a series of descriptive, inferential, and Rasch rating scale analyses were conducted. Looking at the raw LTSJ-B scale scores from entry and exit, it appeared that candidates’ raw exit LTSJ-B scores (Mean = 3.97, S.D. = 0.43) were substantially higher than their raw entry LTSJ-B scores (Mean = 3.42, S.D. = 0.39). Furthermore, as Figures 6.1 and 6.2 suggest below, at the time of entry into the program and again graduation, although the spread of responses from entry to exit remained approximately the same, the distribution of candidates’ raw LTSJ-B scores had shifted to the right, toward endorsement of the teaching for social justice principles outlined in the LTSJ-B scale.

Figure 6.1. Distribution of raw 2009 cohort entry LTSJ-B scale scores
Additionally, each item mean increased from the time of entry into the program to the time of graduation. Table 6.1 presents the raw LTSJ-B means in ascending order, standard deviations and raw score change for the 2009 cohort on the entry and exit surveys. Interestingly, two of the items that exhibited the greatest change from entry to graduation (SJ 5R, SJ 6R), addressed concepts and principles of working with English language learners, a heavy emphasis of the BC teacher education program.
Table 6.1. Descriptive statistics on the 2009 cohort raw LTSJ-B items at entry and exit

<table>
<thead>
<tr>
<th>Item</th>
<th>Entry Mean (S.D.)</th>
<th>Exit Mean (S.D.)</th>
<th>Raw score change</th>
</tr>
</thead>
<tbody>
<tr>
<td>12R</td>
<td>2.48 (1.04)</td>
<td>2.99 (1.19)</td>
<td>0.51</td>
</tr>
<tr>
<td>11R</td>
<td>2.85 (0.97)</td>
<td>3.21 (1.02)</td>
<td>0.36</td>
</tr>
<tr>
<td>10R</td>
<td>3.41 (0.97)</td>
<td>3.74 (0.88)</td>
<td>0.33</td>
</tr>
<tr>
<td>5R</td>
<td>3.03 (0.86)</td>
<td>3.85 (0.83)</td>
<td>0.82</td>
</tr>
<tr>
<td>3R</td>
<td>2.97 (0.93)</td>
<td>3.94 (1.02)</td>
<td>0.97</td>
</tr>
<tr>
<td>9R</td>
<td>3.59 (0.86)</td>
<td>4.06 (1.09)</td>
<td>0.47</td>
</tr>
<tr>
<td>2</td>
<td>3.71 (0.76)</td>
<td>4.10 (0.61)</td>
<td>0.39</td>
</tr>
<tr>
<td>7</td>
<td>3.79 (0.78)</td>
<td>4.10 (0.85)</td>
<td>0.31</td>
</tr>
<tr>
<td>6R</td>
<td>3.51 (0.88)</td>
<td>4.24 (0.76)</td>
<td>0.73</td>
</tr>
<tr>
<td>8</td>
<td>3.85 (0.67)</td>
<td>4.26 (0.67)</td>
<td>0.41</td>
</tr>
<tr>
<td>1</td>
<td>3.93 (0.67)</td>
<td>4.54 (0.56)</td>
<td>0.61</td>
</tr>
<tr>
<td>4</td>
<td>4.07 (0.64)</td>
<td>4.71 (0.46)</td>
<td>0.64</td>
</tr>
</tbody>
</table>

*Rasch rating scale analyses on LTSJ-B scale change*

Dependent means t-tests were conducted on candidates’ logit estimates from the time of entry into the program to the time of graduation. The mean, or average, LTSJ-B logit estimate for the 2009 cohort at the time of entry into the program was +0.45 logits (S.D. = 0.54), while the mean cohort estimate at the time of graduation from the program was +1.34 (S.D.=0.82). The mean (raw) logit change from the time of entry into the program to graduation was +0.89 logits (S.D. = 0.77), with the distribution of raw logit change scores ranging from -0.90 logit to +3.89 logits. As expected, candidates’ logit estimates at the end of their senior year were statistically significantly higher than their estimates at the beginning of their freshman year (t=9.69, p<0.001).
The Rasch-Thurstone thresholds variable map, provides evidence of the extent to which the candidates in the 2009 cohort changed their beliefs from the time of entry into the program to the time of graduation. At entry, candidates located at the mean cohort estimate (“M”), +0.45 logits, had a 0.5 probability, or 50% likelihood of scoring “5,” or strongly endorsing items 1 and 4. In addition, on average, candidates had a 0.5 probability of scoring “4” on 6 items on the scale: 2, 7, 8, 9R, 6R, 3R. Candidates also had a 0.5 probability of scoring “3,” or responding “uncertain” to items 10R, 5R, and scoring “2” or moderately rejecting items 11R and 12R.

At the time of graduation, candidates located at the mean cohort estimate (“M”), +1.34 logits, had a 0.5 probability, or 50% likelihood of scoring “5,” or strongly endorsing items 1 and 4. In addition, on average, candidates had a 0.5 probability or scoring a “4” on 9 items on the scale: 2, 7, 8, 9R, 6R, 3R, 105, 5R, and 11R. Candidates also had a 0.5 probability of scoring “3,” or responding “uncertain” to item 12R. Table 6.2 presents the change in candidates’ beliefs in terms of likelihood of endorsing different items on the LTSJ-B scale.

Table 6.2. Probability of endorsing each item on the LTSJ-B scale at the 2009 mean cohort entry and exit LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>2009 Cohort</th>
<th>Strongly rejecting</th>
<th>Moderately rejecting</th>
<th>Uncertain</th>
<th>Moderately endorsing</th>
<th>Strongly endorsing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry mean (+0.45 logits)</td>
<td>11R, 12R</td>
<td>10R, 5R</td>
<td>2, 7, 8, 9R, 6R, 3R</td>
<td>1, 4</td>
<td></td>
</tr>
<tr>
<td>Exit mean (+1.34 logits)</td>
<td></td>
<td>12R</td>
<td>2, 7, 8, 9R, 6R, 3R, 105, 5R, 11R</td>
<td>1, 4</td>
<td></td>
</tr>
</tbody>
</table>

**Correlational analyses**

To identify candidates’ experiences and perceptions that are related to their
change in beliefs about and commitment to social justice, a series of correlational analyses were conducted, examining in particular candidates’ entry LTSJ-B logit estimates, and candidates’ perceptions and reported experiences at the time of graduation.

Like the analyses in Chapters 4 and 5, these exploratory analyses examined the relationship between candidates’ reported experiences and perceptions at the beginning and end of the program and their beliefs about teaching for social justice. Correlational relationships were obtained among the exit LTSJ-B logit estimates, entry LTSJ-B logit estimates, race/ethnicity, student teaching location, and teacher education faculty evaluation were explored, and are presented in Table 6.3 below.

Table 6.3. Correlational relationships among 2009 cohort exit LTSJ-B logit estimates, entry LTSJ-B logit estimates and significant exit variables

<table>
<thead>
<tr>
<th>Exit LTSJ-B logit estimate</th>
<th>Entry LTSJ-B logit estimate</th>
<th>Race/ethnicity</th>
<th>Student teaching location</th>
<th>Teacher education faculty evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit LTSJ-B logit estimates</td>
<td>1</td>
<td>0.42**</td>
<td>0.32**</td>
<td>0.34**</td>
</tr>
<tr>
<td>Entry LTSJ-B logit estimate</td>
<td>---</td>
<td>1</td>
<td>0.19</td>
<td>0.09</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>0.24*</td>
</tr>
<tr>
<td>Student teaching location</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>Teacher education faculty evaluation</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

* Indicates significant at the p<0.05 level
** Indicates significance at the p<0.01 level

The simple relationships between exit LTSJ-B logit estimates, race/ethnicity, student
teaching location, and teacher education faculty evaluation are discussed in Chapter 5. The relationship between exit LTSJ-B and entry LTSJ-B logit estimates is described below.

*Entry LTSJ-B logit estimates* (*r*=0.42, *p*<0.01). As presented in Figure 6.4 below, candidates’ with higher entry LTSJ-B logit estimates tended to have higher exit LTSJ-B logit estimates. In other words, those who entered Boston College with beliefs that aligned with the concepts and principles described on the LTSJ-B scale, tended to graduate from Boston College with beliefs that aligned with the concepts and principles on the scale. The three lines on the scatter plot demonstrate the regression line (middle line) and the 95% confidence interval (outer lines). Three candidates fall outside the 95% confidence interval. Specifically, based on her entry LTSJ-B logit estimate, one candidate (the candidate with the lowest exit LTSJ-B logit estimate) had a lower than expected exit LTSJ-B logit estimate. In addition, two candidates had higher than expected exit LTSJ-B logit estimates (those with the highest exit LTSJ-B logit estimates). However, as demonstrated in the scatter plot and by the magnitude of the correlation coefficient (*r*=0.42), although significantly correlated, candidates’ beliefs about teaching for social justice at the time of entry into the program do not perfectly predict their beliefs about teaching for social justice at the end of the program.
Figure 6.3. Simple relationship between 2009 cohort entry and exit LTSJ-B logit estimates

Multiple regression analyses

All 72 candidates in the 2009 cohort had exit LTSJ-B logit estimates, entry LTSJ-B logit estimates, scores on the “teacher education faculty evaluation” subscale, and self-identified in terms of race. However, one person responded that the location or his/her student teaching was “other,” and was replaced as suburban, based on her responses to the other items on the exit survey.

The exit LTSJ-B logit estimates were regressed on entry LTSJ-B logit estimates, “race/ethnicity,” “student teaching location,” and “teacher education faculty evaluation.” Specifically, the variables were entered in this way to examine the relationships among candidates’ beliefs about teaching for social justice at graduation, in relation to their beliefs about teaching for social justice at the time they began the teacher education program, their identity, experiences while in the program, and perceptions of their teacher education faculty at the end of the program. In other words, this regression model explored the extent to which candidates’ identity, reported experiences while in the
program, and perceptions at the end of the program were related to their beliefs about teaching for social justice, above and beyond their beliefs at the time they started the program.

In the overall regression for the 2009 cohort of exit LTSJ-B logit estimates on entry LTSJ-B logit estimates, “race/ethnicity,” “student teaching location,” and “teacher education faculty evaluation,” the overall model accounted for a significant 39.9% of the variance in exit LTSJ-B logit estimates \( R^2 = 0.399, F(4,67)=11.14, p<0.001 \). As each variable was entered into the model, it contributed a statistically significant portion of the variance, with entry LTSJ-B logit estimates accounting for 16.7% of the variance, “race/ethnicity” accounting for an additional 6.9% of the variance, “student teaching location” accounting for an additional 5.6% of the variance, and the “teacher education faculty evaluation” subscale adding 9.6% of the variance.

In the final model, the magnitude of the partial regression coefficients for entry LTSJ-B logit estimates \( (b=0.49, \beta=0.32, t=3.30, p<0.01) \), race/ethnicity \( (b=0.53, \beta=0.20, t=2.05, p<0.05) \), student teaching location \( (b=0.44, \beta=0.26, t=2.61, p<0.05) \), and the teacher education faculty evaluation subscale \( (b=0.60, \beta=0.31, t=3.27, p<0.01) \) are statistically significant. The VIF statistics were all near one indicating minimal multicollinearity effects. Table 6.4 presents the model summary for the multiple regression analysis.
Table 6.4. Model summary of multiple regression analysis for variables predicting 2009 cohort exit LTSJ-B logit estimates (change)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-.99</td>
<td>.58</td>
<td>-1.71</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>Entry LTSJ-B logit estimates</td>
<td>.49</td>
<td>.15</td>
<td>.32</td>
<td>3.30</td>
<td>.002</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>.53</td>
<td>.26</td>
<td>.20</td>
<td>2.05</td>
<td>.045</td>
</tr>
<tr>
<td>Student teaching location</td>
<td>.44</td>
<td>.17</td>
<td>.26</td>
<td>2.61</td>
<td>.01</td>
</tr>
<tr>
<td>Teacher education faculty evaluation</td>
<td>.60</td>
<td>.18</td>
<td>.31</td>
<td>3.27</td>
<td>.002</td>
</tr>
</tbody>
</table>

The distribution of residuals was adequate, as demonstrated by analysis of the histogram and the normal P-P plot, and there was only one potentially outlying case, the candidate with the highest logit estimate on the LTSJ-B scale, with a LTSJ-B logit estimate of 4.63 and a standardized residual of 3.17.

The final regression solution for the 2009 cohort at the time of graduation is:

Predicted exit LTSJ-B logit estimates = -0.99 + 0.49 (entry LTSJ-B logit estimate) + 0.53(race/ethnicity) + 0.44(student teaching location) + 0.60(teacher education faculty evaluation). These unstandardized coefficients demonstrate the expected change in LTSJ-B logit estimates for a one-unit change in the predictor variables. In this case, for a one-unit change in candidates’ entry LTSJ-B logit estimate, there is an expected 0.49 increase in candidates’ exit LTSJ-B logit estimates. In addition, for every one-unit increase in candidates’ race/ethnicity (i.e., moving from a candidate who is White to a candidate who is AHANA), candidates’ LTSJ-B logit estimates are predicted to increase 0.53 logits. For every one-unit increase in “student teaching location” (i.e., going from “suburban” to “urban”) candidates’ exit LTSJ-B logit estimates are predicted to increase 0.44 logits. For every one-unit increase on the “Teacher education faculty evaluation” subscale, candidates’ exit LTSJ-B estimates are predicted to increase 0.60 logits.
As demonstrated by the standardized coefficients ($\beta$), the magnitude of the relationship between exit LTSJ-B logit estimate and entry LTSJ-B logit estimates ($\beta=0.32$) is similar to that of “teacher education faculty evaluation” ($\beta=0.31$). These relationships are slightly stronger than the relationship between candidates’ exit LTSJ-B logit estimates and candidates’ student teaching location ($\beta=0.26$), and much stronger than the relationship between candidates’ exit LTSJ-B logit estimates and their race/ethnicity ($\beta=0.20$).

These analyses suggest that although candidates’ beliefs about teaching for social justice at the time they started the program were related to their beliefs about teaching for social justice when they graduated, candidates’ experiences during and perceptions at the end of the program were also related to their beliefs, above and beyond their initial beliefs. However, while candidates’ who had higher entry LTSJ-B logit estimates also tended to have higher exit LTSJ-B estimates, other factors contributed to the variance in their beliefs about teaching for social justice at the time of graduation. In particular, candidates’ race/ethnicity is a significant predictor of their exit LTSJ-B logit estimates, where AHANA candidates are predicted to have higher exit LTSJ-B logit estimates than White candidates. In addition, candidates who completed their student teaching placement in an urban setting tended to also have higher exit LTSJ-B logit estimates. Furthermore, candidates’ who endorsed the statements surrounding their teacher education faculty’s knowledge of contemporary schools and structuring of courses around these issues, tended to have higher exit LTSJ-B logit estimates than those who did not. In fact, candidates’ perceptions of their teacher education faculty (as measured by
the “teacher education faculty evaluation” subscale) predicted their exit LTSJ-B logit estimates almost as well as their entry LTSJ-B logit estimates.

Based on the findings from the 2009 cohort, and the findings in the previous chapters, these analyses were replicated on the 2010 cohort and again on the 2009 and 2010 cohorts combined.

**2010 cohort change analyses**

*Examining change: Rasch rating scale analyses on LTSJ-B scale change*

Dependent means t-tests were conducted on candidates’ logit estimates from the time of entry into the program to the time of graduation. The mean, or average, entry LTSJ-B logit estimate for the 2010 cohort was +0.38 (S.D.=0.65) logits, while the mean cohort exit LTSJ-B logit estimate at the time of graduation from the program was +1.29 (S.D.=0.80). The mean raw change score for the 2010 cohort was +0.91 logits (S.D. = 0.71), with the distribution of raw change logit scores ranging from -0.63 logits to +3.19 logits. As expected, candidates’ logit estimates at the end of their senior year were statistically significantly higher than their estimates at the beginning of their freshman year (t=10.14, p<0.001).

Like candidates in the 2009 cohort, on average, candidates in the 2010 cohort changed in their level of endorsement of particular items. At entry, candidates located at the mean cohort estimate (“M”), +0.38 logits, had a 0.5 probability, or 50% likelihood of scoring “5,” or strongly endorsing items 1 and 4. In addition, on average, candidates had a 0.5 probability of scoring “4” on 6 items on the scale: 2, 7, 8, 9R, 6R, 3R. Candidates also had a 0.5 probability of scoring “3,” or responding “uncertain” to items 10R, 5R, and
scoring “2” or moderately rejecting items 11R and 12R. At the time of graduation, candidates located at the mean cohort estimate (“M”), +1.29 logits, had a 0.5 probability, or 50% likelihood of scoring “5,” or strongly endorsing items 1 and 4. In addition, on average, candidates had a 0.5 probability or scoring a “4” on 9 items on the scale: 2, 7, 8, 9R, 6R, 3R, 105, 5R, and 11R. Candidates also had a 0.5 probability of scoring “3,” or responding “uncertain” to item 12R. Table 6.5 presents the change in candidates’ beliefs in terms of likelihood of endorsing different items on the LTSJ-B scale.

Table 6.5. Probability of endorsing each item on the LTSJ-B scale at the 2010 mean cohort entry and exit LTSJ-B logit estimates

<table>
<thead>
<tr>
<th>2010 Cohort</th>
<th>Strongly rejecting</th>
<th>Moderately rejecting</th>
<th>Uncertain</th>
<th>Moderately endorsing</th>
<th>Strongly endorsing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry mean</td>
<td></td>
<td>11R, 12R</td>
<td>10R, 5R</td>
<td>2, 7, 8, 9R, 6R, 3R</td>
<td>1, 4</td>
</tr>
<tr>
<td>(+0.38 logits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exit mean</td>
<td></td>
<td></td>
<td>12R</td>
<td>2, 7, 8, 9R, 6R, 3R, 105, 5R, 11R</td>
<td>1, 4</td>
</tr>
<tr>
<td>(+1.29 logits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Correlational analyses

Correlational analyses were replicated on the 2010 cohort to examine the relationships among candidates’ exit LTSJ-B logit estimates, their entry LTSJ-B logit estimates, student teaching location, and teacher education faculty knowledge of contemporary schools were explored and are presented in Table 6.6 below.
Table 6.6. Correlational relationships among 2010 cohort exit LTSJ-B logit estimates, entry LTSJ-B logit estimates and significant exit variables

<table>
<thead>
<tr>
<th>LTSJ-B logit estimate (Exit)</th>
<th>LTSJ-B logit estimate (Entry)</th>
<th>Student teaching location</th>
<th>Teacher education faculty knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.54**</td>
<td>0.37**</td>
<td>0.35**</td>
</tr>
<tr>
<td>LTSJ-B logit estimate (Entry)</td>
<td>---</td>
<td>1</td>
<td>0.21</td>
</tr>
<tr>
<td>Student teaching location</td>
<td>---</td>
<td>---</td>
<td>1</td>
</tr>
<tr>
<td>Teacher education faculty knowledge</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

* Indicates significant at the p<0.05 level
** Indicates significance at the p<0.01 level

The simple relationships between exit LTSJ-B logit estimates, student teaching location, and teacher education knowledge of contemporary schools are discussed in Chapter 5.

The relationship between exit LTSJ-B and entry LTSJ-B logit estimates is described below.

*Entry LTSJ-B logit estimates (r=0.54, p<0.01).* As presented in Figure 6.4 below, candidates with higher entry LTSJ-B logit estimates tended to have higher exit LTSJ-B logit estimates. In other words, those who entered Boston College with beliefs that aligned with the concepts and principles described on the LTSJ-B scale, tended to graduate from Boston College with beliefs that aligned with the concepts and principles on the scale. Three candidates fall outside the 95% confidence interval. These candidates had higher than expected exit LTSJ-B logit estimates. The relationship between 2010 cohort’s entry LTSJ-B logit estimates and exit LTSJ-B logit estimates appears stronger.
than the 2009 cohort’s correlation between the same two variables. However, like the 2009 cohort, for the 2010 cohort, although significantly correlated, candidates’ beliefs about teaching for social justice at the time of entry into the program do not perfectly predict their beliefs about teaching for social justice at the end of the program.

*Figure 6.4. Simple relationship between 2010 cohort entry and exit LTSJ-B logit estimates*

![Graph showing relationship between entry and exit LTSJ-B logit estimates](image)

**Multiple regression analyses**

All 62 candidates in the 2010 cohort had exit LTSJ-B logit estimates, entry LTSJ-B logit estimates, and responded to the item on teacher education knowledge of contemporary schools. However, one person did not respond to his/her student teaching location. Based on this candidate’s responses to the other items on the exit survey, the missing response was replaced with “suburban.”

The exit LTSJ-B logit estimates were regressed on entry LTSJ-B logit estimates, “student teaching location,” and “teacher education knowledge of contemporary schools.” Like the analyses conducted on the 2009 cohort, this regression model explored the extent to which candidates’ reported experiences while in the program, and
perceptions at the end of the program were related to their beliefs about teaching for social justice, above and beyond their beliefs at the time they started the program.

In the overall regression for the 2010 cohort of exit LTSJ-B logit estimates on entry LTSJ-B logit estimates, “student teaching location,” and “teacher education faculty knowledge of contemporary schools,” the overall model accounted for a significant 41% of the variance in exit LTSJ-B logit estimates [$R^2 = 0.41$, $F(3,58)=13.43$, $p<0.001$]. As each predictor was entered into the model, it contributed a statistically significant portion of the variance, with entry LTSJ-B logit estimates accounting for 28.9% of the variance, “student teaching setting” accounting for an additional 7.3% of the variance, and the “teacher education faculty knowledge of contemporary schools” adding 4.7% of the variance.

In the final model, the magnitude of the partial regression coefficients for entry LTSJ-B logit estimates ($b=0.52$, $\beta=0.43$, $t=4.02$, $p<0.01$), student teaching location ($b=0.43$, $\beta=0.27$, $t=2.60$, $p<0.05$), and the teacher education faculty knowledge of contemporary schools ($b=0.25$, $\beta=0.22$, $t=2.15$, $p<0.05$) are statistically significant. The VIF statistics were all near one indicating minimal multicollinearity effects. The distribution of residuals was adequate, as demonstrated by analysis of the histogram and the normal P-P plot, and there were no outlying cases. Table 6.7 presents the model summary for the multiple regression analysis.
Table 6.7. Summary of multiple regression analysis for variables predicting 2010 cohort exit LTSJ-B logit estimates (change)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.15</td>
<td>.36</td>
<td>0.40</td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td>Entry LTSJ-B logit estimates</td>
<td>.52</td>
<td>.13</td>
<td>.43</td>
<td>4.02</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Student teaching location</td>
<td>.43</td>
<td>.17</td>
<td>.27</td>
<td>2.60</td>
<td>.01</td>
</tr>
<tr>
<td>Teacher education faculty knowledge</td>
<td>.25</td>
<td>.11</td>
<td>.22</td>
<td>2.15</td>
<td>.04</td>
</tr>
</tbody>
</table>

The final regression solution for the 2010 cohort at the time of graduation is:

\[
\text{Predicted exit LTSJ-B logit estimates} = 0.15 + 0.52(\text{entry LTSJ-B logit estimates}) + 0.43(\text{student teaching location}) + 0.25(\text{teacher education faculty knowledge}).
\]

For a one-unit change in candidates’ entry LTSJ-B logit estimate, there is an expected 0.52 increase in candidates’ exit LTSJ-B logit estimates. In addition, for every one-unit increase in “student teaching location” (i.e., going from “suburban” to “urban”) candidates’ exit LTSJ-B logit estimates are predicted to increase 0.43 logits. Finally, for every one-unit increase in the level of endorsement of the teacher education faculty’s knowledge of contemporary schools, candidates’ exit LTSJ-B estimates are predicted to increase 0.25 logits.

The standardized coefficients (\(\beta\)) demonstrate that entry LTSJ-B logit estimates have the strongest relationship with exit LTSJ-B logit estimates (\(\beta=0.43\)). In comparison, candidates’ student teaching location (\(\beta=0.27\)) and perceptions of the teacher education faculty’s knowledge (\(\beta=0.23\)) tend to have somewhat weaker relationships with their exit LTSJ-B logit estimates. Furthermore, the strength of the relationship between candidates’ entry LTSJ-B logit estimates and exit LTSJ-B logit estimates is almost twice as strong as the magnitude of the relationship between candidates’ perceptions of the teacher
Like the analyses on the 2009 cohort, these analyses suggest that for the 2010 cohort, although candidates’ beliefs about teaching for social justice at the time they started the program were related to their beliefs about teaching for social justice when they graduated, candidates’ experiences during and perceptions at the end of the program were also related to their beliefs, above and beyond their initial beliefs. Even though candidates who had higher entry LTSJ-B logit estimates also tended to have higher exit LTSJ-B estimates, other factors contributed to the variance in their beliefs about teaching for social justice at the time of graduation. In particular, candidates who completed their student teaching placement in an urban setting tended to also have higher exit LTSJ-B logit estimates. Additionally, candidates who endorsed the statements surrounding their teacher education faculty’s knowledge of contemporary schools tended to have higher exit LTSJ-B logit estimates than those who did not.

Given the similarities between the candidates in the 2009 and 2010 cohorts, a third series of analyses was conducted combining candidates’ responses across cohorts. Combining cohorts increased the sample size for the subsequent analyses and allowed for further examination of teacher candidates’ change in beliefs about teaching for social justice across time, and the experiences and perceptions that may be related to their beliefs.

**Combined cohort change analyses**

*Examining change: Rasch rating scale analyses on LTSJ-B scale change*

Dependent means t-tests were also conducted on candidates’ logit estimates from
the time of entry into the program to the time of graduation. The mean, or average, entry LTSJ-B logit estimate was +0.42 (S.D.=0.59) logits, while the mean exit LTSJ-B cohort estimate was +1.31 (S.D. = 0.81). The mean for the raw logit change scores was +0.90 (S.D. = 0.74), with a distribution of raw logit change scores ranging from -0.90 to 3.89. As expected, candidates’ logit estimates at the end of their senior year were statistically significantly higher than their estimates at the beginning of their freshman year (t=14.00, p<0.001).

Across cohorts and analyses, candidates’ changed in the degree to which they endorsed particular items on the LTSJ-B scale, as demonstrated by the Rasch-Thurstone variable map in Figure 6.5. At entry, candidates located at the mean cohort estimate (“M”), +0.42 logits, had a 0.5 probability, or 50% likelihood of scoring “5,” or strongly endorsing items 1 and 4. In addition, on average, candidates had a 0.5 probability of scoring “4” on 6 items on the scale: 2, 7, 8, 9R, 6R, 3R. They also had a 0.5 probability of scoring “3,” or responding “uncertain” to items 10R, 5R, and scoring “2” or moderately rejecting items 11R and 12R. At the time of graduation, candidates located at the mean cohort estimate (“M”), +1.31 logits, had a 0.5 probability, or 50% likelihood of scoring “5,” or strongly endorsing items 1 and 4. In addition, on average, candidates had a 0.5 probability or scoring a “4” on 9 items on the scale: 2, 7, 8, 9R, 6R, 3R, 105, 5R, and 11R. However, on average, based on the cohort mean person logit estimate of +1.31 logits, candidates also have a 0.5 probability of scoring “3,” or responding “uncertain” to item 12R.
The Rasch-Thurstone variable map also provides an opportunity to compare differences in degrees of beliefs. Hillary began the teacher education program with an entry LTSJ-B logit estimate of -0.07, slightly lower than her peers. At the time of graduation, Hillary, had an exit LTSJ-B logit estimate of +0.42, again, somewhat lower than the average cohort estimate. Across time her logit estimate increased +0.49.
Specifically, at the time of entry into the program, at -0.07 logits, Hillary had a 0.5 probability of scoring “4” or moderately endorsing five items (SJ1, SJ4, SJ2, SJ7, and SJ8). She had a 0.5 probability of being uncertain about three items (SJ9R, SJ6R, and SJ3R). She also had a 0.5 probability of scoring “2,” or moderately rejecting the four most difficult to endorse items on the scale (SJ10R, SJ5R, SJ11R, and SJ12R). At graduation, +0.42 logits, Hillary had a 0.5 probability of scoring “5” or strongly endorsing the two easiest to endorse items of the scale (SJ1, SJ4). She had a 0.5 probability of scoring “4” or moderately endorsing six items (SJ2, SJ7, SJ8, SJ6R, SJ3R, SJ9R). She has a 0.5 probability of scoring “3,” or being uncertain about two items (SJ10R, SJ5R). She also has a 0.5 probability of scoring “2,” or moderately rejecting the two most difficult to endorse items on the scale (SJ11R, and SJ12R).

In contrast, Michelle, also described at the beginning of the chapter, had a logit estimate of +0.74 at the beginning of her freshman year. At +0.74, she had a 0.5 probability of scoring “5,” or strongly endorsing, two items (SJ1, SJ4). Michelle had a 0.5 probability of scoring “4,” or moderately endorsing 8 items (SJ2, SJ7, SJ8, SJ9R, SJ6R, SJ3R, SJ10R), and scoring “3” or being uncertain about the two most difficult items to endorse on the scale (SJ11R and SJ12R). At graduation, Michelle’s exit LTSJ-B logit estimate of +2.09 was higher than the average cohort estimate. At +2.09, she had a 0.5 probability of scoring “5,” or strongly endorsing, five items (SJ1, SJ4, SJ7, SJ2, SJ8). Michelle had a 0.5 probability of scoring “4,” or moderately endorsing the remaining seven items (SJ9R, SJ6R, SJ3R, SJ10R, SJ11R, and SJ12R). In other words, Michelle endorsed all of the concepts and principles described in the LTSJ-B scale. Table 6.8
demonstrates the shift in expected responses from entry to exit for the combined cohorts, Hillary, and Michelle.

Table 6.8. Probability of endorsing each item on the LTSJ-B scale on the combined cohort entry and exit LTSJ-B logit estimates

<table>
<thead>
<tr>
<th></th>
<th>Strongly rejecting</th>
<th>Moderately rejecting</th>
<th>Uncertain</th>
<th>Moderately endorsing</th>
<th>Strongly endorsing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined cohort Entry mean</td>
<td>11R, 12R</td>
<td>10R, 5R</td>
<td>2, 7, 8, 9R, 6R, 3R</td>
<td>1, 4</td>
<td></td>
</tr>
<tr>
<td>(+0.42 logits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined cohort Exit mean</td>
<td></td>
<td>12R</td>
<td>2, 7, 8, 9R, 6R, 3R, 105, 5R, 11R</td>
<td>1, 4</td>
<td></td>
</tr>
<tr>
<td>(+1.31 logits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hillary at Entry (-0.07 logits)</td>
<td>10R, 5R, 11R, 12R</td>
<td>9R, 6R, 3R</td>
<td>1, 4, 2, 7, 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hillary at Exit (+0.42 logits)</td>
<td>11R, 12R</td>
<td>10R, 5R</td>
<td>2, 7, 8, 6R, 3R, 9R</td>
<td>1, 4</td>
<td></td>
</tr>
<tr>
<td>Michelle at Entry (+0.74 logits)</td>
<td>11R, 12R</td>
<td></td>
<td>2, 7, 8, 9R, 6R, 3R, 10R</td>
<td>1, 4</td>
<td></td>
</tr>
<tr>
<td>Michelle at Exit (+2.09 logits)</td>
<td></td>
<td>9R, 6R, 3R, 10R, 11R, 12R</td>
<td>1, 4, 7, 2, 8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The findings support our previous findings (Enterline, Cochran-Smith, et al., 2008) in which candidates’ entering beliefs about teaching for social justice were dramatically different from graduating candidates’ beliefs as measured by the LTSJ-B scale. As we previously explained,

it is particularly noteworthy that entering candidates’ uncertainty about some of the beliefs related to structural and societal inequities contrasts sharply with the much stronger endorsements (either agreement or disagreement, depending on the wording of the item), by exiting candidates. Exiting candidates indicated more
understanding of the complexities of teaching for social justice and the roles of teachers and teaching in school and social change (p. 282).

However, as noted in Chapter 5, while candidates had a more nuanced understanding of teaching for social justice at the time of graduation from the program, they were, on average, uncertain about the most controversial and macro-level concept described on the LTSJ-B scale. Furthermore, as presented in the examples of Hillary and Michelle, individual candidates were at very different points in terms of their understanding of, beliefs about, and commitment to teaching for social justice when they began the program and when they graduated from the program.

**Correlational analyses**

At the cohort level, beyond candidates’ initial beliefs about teaching for social justice at the time of entry into the program, certain experiences and perceptions were related to each cohort’s beliefs about teaching for social justice. In particular, candidates’ perceptions of the teacher education faculty’s knowledge of the realities of contemporary schools and their reported student teaching location were related to their beliefs about teaching for social justice.

The following analyses examined these relationships when both cohorts were combined. Correlational analyses were replicated among candidates’ entry LTSJ-B logit estimates and the items and scales that were significant predictors of exit LTSJ-B logit estimates, specifically race/ethnicity, student teaching location, and teacher education faculty knowledge of schools. As presented in Table 6.9 below, all variables are
significantly correlated with candidates’ exit LTSJ-B logit estimates. Furthermore, candidates’ entry LTSJ-B logit estimates are significantly correlated with candidates’ endorsement of teacher education faculty knowledge of contemporary schools.

Table 6.9. Correlational relationships among combined cohort exit LTSJ-B logit estimates, entry LTSJ-B logit estimates, and significant exit variables

<table>
<thead>
<tr>
<th>Exit LTSJ-B logit estimates</th>
<th>Entry LTSJ-B logit estimate</th>
<th>Race/ethnicity</th>
<th>Student teaching location</th>
<th>Teacher education faculty knowledge of schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.48**</td>
<td>0.23**</td>
<td>0.35**</td>
<td>0.35**</td>
</tr>
<tr>
<td>---</td>
<td>1</td>
<td>0.11</td>
<td>0.15</td>
<td>0.23**</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>1</td>
<td>0.14</td>
<td>0.02</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
<td>0.06</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1</td>
</tr>
</tbody>
</table>

* Indicates significant at the p<0.05 level  
** Indicates significance at the p<0.01 level

Across cohorts, the simple relationships between exit LTSJ-B logit estimates and candidates’ race/ethnicity, student teaching location, and teacher education faculty knowledge of contemporary schools were explored in Chapter 5. The relationship between candidates’ exit LTSJ-B logit estimates and their entry LTSJ-B logit estimates is explored below.

*Entry LTSJ-B logit estimates* (r=0.48, p<0.01). As presented in Figure 6.4 below, candidates’ with higher entry LTSJ-B logit estimates tended to have higher exit LTSJ-B
logit estimates. In other words, those who entered Boston College with beliefs that aligned with the concepts and principles described on the LTSJ-B scale, tended to graduate from Boston College with beliefs that aligned with the concepts and principles on the scale. As demonstrated in Figure 6.6, six candidates fall outside the 95% confidence interval. Specifically, based on her Entry logit estimate, one candidate (the candidate with the lowest exit LTSJ-B logit estimate) had a lower than expected exit LTSJ-B logit estimate. In addition, five candidates had higher than expected exit LTSJ-B logit estimates (those with some of the highest exit LTSJ-B logit estimates).

*Figure 6.6. Simple relationship between combined cohort entry and exit LTSJ-B logit estimates*

![Graph showing relationship between entry and exit logit estimates.](image)

**Multiple regression analyses**

All 134 candidates had exit LTSJ-B and entry LTSJ-B logit estimates, all students had a reported race/ethnicity, and responded to the item on teacher education faculty knowledge of contemporary schools. However, only 132 students reported their location for student teaching as suburban or urban. The missing responses to student teaching
location were replaced with “suburban,” based on candidates’ responses to the other items on the exit survey.

The exit LTSJ-B logit estimates were regressed on entry LTSJ-B logit estimates, “race/ethnicity,” “student teaching location,” and “teacher education faculty knowledge of contemporary schools.” In the overall regression for the combined cohorts of exit LTSJ-B logit estimates on entry LTSJ-B logit estimates, “race/ethnicity,” “student teaching location,” and “teacher education faculty knowledge of contemporary schools,” the overall model accounted for a significant 37.2% of the variance in exit LTSJ-B logit estimates \([R^2=0.372, F(4,129)=20.46, p<0.001]\). As each variable was entered into the model, it contributed a statistically significant portion of the variance, with entry LTSJ-B logit estimates accounting for 22.9% of the variance, “race/ethnicity” accounting for an additional 4.4% of the variance, “student teaching location” accounting for an additional 6.0% of the variance, and the “teacher education faculty knowledge of contemporary schools” adding 6.0% of the variance.

In the final model, the magnitude of the partial regression coefficients for entry LTSJ-B logit estimates \((b=0.50, \beta=0.37, t=5.12, p<0.01)\), race/ethnicity \((b=0.46, \beta=0.17, t=2.37, p=0.01)\), student teaching location \((b=0.41, \beta=0.25, t=3.46, p<0.01)\), and teacher education faculty knowledge of contemporary schools \((b=0.28, \beta=0.25, t=3.55, p<0.01)\) are statistically significant. The VIF statistics were all near one indicating that there were minimal multicollinearity effects. Table 6.10 presents the model summary for the multiple regression analysis.
Table 6.10. Summary of multiple regression analysis for variables predicting combined cohort exit LTSJ-B logit estimates (change)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.04</td>
<td>.25</td>
<td>.15</td>
<td>5.12</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Entry LTSJ-B logit estimates</td>
<td>.50</td>
<td>.10</td>
<td>.37</td>
<td>5.12</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>.46</td>
<td>.19</td>
<td>.17</td>
<td>2.37</td>
<td>.02</td>
</tr>
<tr>
<td>Student teaching location</td>
<td>.41</td>
<td>.12</td>
<td>.25</td>
<td>3.46</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Teacher education knowledge</td>
<td>.28</td>
<td>.08</td>
<td>.25</td>
<td>3.55</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

The distribution of residuals was adequate, as demonstrated by analysis of the histogram and the normal P-P plot, and there was only one potentially outlying case, the candidate with the highest exit LTSJ-B logit estimate, with an estimate of 4.63 and a standardized residual of 3.61.

The final regression solution across cohorts is: Predicted exit LTSJ-B logit estimates = 0.04 + 0.50(entry LTSJ-B logit estimate) + 0.46(race/ethnicity) + 0.41(student teaching location) + 0.28(teacher education faculty evaluation). In this case, for a one-unit change in candidates’ entry LTSJ-B logit estimate, there is an expected 0.50 increase in candidates’ exit LTSJ-B logit estimates. In addition, for every one-unit increase in candidates’ race/ethnicity (moving from non-AHANA/White to AHANA), candidates’ exit LTSJ-B logit estimates are expected to increase 0.46. Furthermore, for every one-unit increase in “student teaching location” (i.e., going from “suburban” to “urban”) candidates’ exit LTSJ-B logit estimates are predicted to increase 0.41 logits. Finally, for every one-unit increase in candidates’ endorsement of their teacher education faculty knowledge of contemporary schools, there is a 0.28 predicted increase in candidates’ exit LTSJ-B logit estimates.

When looking at the standardized coefficients (β), the entry logit estimates have by far the strongest relationship with exit LTSJ-B logit estimates (β=0.37). This
relationship is greater than the magnitude of the relationship between exit LTSJ-B logit estimates and candidates’ student teaching location (β=0.25) or endorsement of teacher education faculty knowledge of contemporary schools (β=0.25). In fact, the relationship between entry and exit LTSJ-B logit estimates is more than twice the magnitude of the relationship between exit LTSJ-B logit estimates and candidates’ race/ethnicity (β=0.17).

Just as in the other analyses described in this chapter, these analyses suggest that although candidates’ beliefs about teaching for social justice at the time they started the program were related to their beliefs about teaching for social justice when they graduated, candidates’ experiences during and perceptions at the end of the program were also related to their beliefs about teaching for social justice at the time of graduation, above and beyond their initial beliefs. Although candidates’ who had higher entry LTSJ-B logit estimates also tended to have higher exit LTSJ-B estimates, other factors contributed to the variance in their beliefs about teaching for social justice at the time of graduation. In particular, candidates’ race/ethnicity is related to candidates’ exit LTSJ-B logit estimates; candidates who self-identified as AHANA tended to have higher LTSJ-B logit estimates than those who identified as White. Also, candidates who completed their student teaching placement in an urban setting tended to also have higher exit LTSJ-B logit estimates than those who completed their student teaching in a suburban setting. Additionally, candidates who endorsed the statement about their teacher education faculty’s knowledge of contemporary schools, tended to have higher exit LTSJ-B logit estimates than those who did not.

Looking across cohorts, several patterns emerge. Table 6.11 presents the simple
relationships between the entry LTSJ-B logit estimates, predictor variables entered across the multiple regression models for the 2009, 2010, and combined cohorts, and candidates’ exit LTSJ-B logit estimates. Specifically, the items in the gray boxes were entered into the multiple regression models predicting candidates’ exit LTSJ-B logit estimates. The entry-LTSJ-B logit estimates have the strongest simple relationship with exit LTSJ-B logit estimates. Additionally, like the analyses in Chapter 5, across cohorts, candidates’ reported student teaching location and their perceptions of their teacher education faculty’s knowledge of contemporary schools were significantly related to their beliefs about teaching for social justice. Furthermore, although the relationship was stronger for the 2009 cohort than the 2010 cohort, across cohorts candidates’ race/ethnicity was also related to their beliefs about teaching for social justice. In other words, those who identified as AHANA tended to have higher exit LTSJ-B logit estimates than those who identified as White.
Table 6.11. Relationships among significant predictors, entry-LTSJ-B logit estimates and exit LTSJ-B logit estimates for the 2009, 2010 and combined cohorts

<table>
<thead>
<tr>
<th></th>
<th>Entry LTSJ-B logit estimates</th>
<th>Race/ethnicity</th>
<th>Student teaching location</th>
<th>Teacher education faculty evaluation subscale</th>
<th>Teacher education faculty knowledge (item)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 cohort</td>
<td>r=0.42**</td>
<td>r=0.32**</td>
<td>r=0.34**</td>
<td>r=0.36**</td>
<td>r=0.35**</td>
</tr>
<tr>
<td>2010 cohort</td>
<td>r=0.54**</td>
<td>r=0.13</td>
<td>r=0.37**</td>
<td>r=0.14</td>
<td>r=0.35**</td>
</tr>
<tr>
<td>Combined cohorts</td>
<td>r=0.48**</td>
<td>r=0.23**</td>
<td>r=0.35**</td>
<td>r=0.26**</td>
<td>r=0.35**</td>
</tr>
</tbody>
</table>

Open response analyses

On the 2009 exit survey, candidates were asked to respond to two questions regarding their change in beliefs about teaching for social justice:

- *How did your beliefs about teaching for social justice change while you were in the teacher education program?*
- *What specific aspects of the teacher education program influenced your beliefs about teaching for social justice?*

The purpose of these questions, like the question analyzed in Chapter 5, was to have candidates clarify, elaborate and expand on their beliefs about teaching for social justice, if and how their beliefs changed during their four year undergraduate education, and what specific aspects of the Boston College teacher education program influenced their beliefs. While candidates did not have an opportunity to elaborate in great detail, these questions prompted them to generate and discuss their own ideas about teaching for social justice. Furthermore, the responses provide evidence of the extent to which the multiple
regression models predicting candidates’ exit LTSJ-B logit estimates aligned with their beliefs about teaching for social justice and the major Boston College influences that may have impacted their beliefs. These questions were only asked on the 2009 exit survey, and as a result, only the candidates in the 2009 cohort had the opportunity to respond to them. Out of the 72 candidates in the 2009 cohort, 48 (67%) responded to these questions.

Change in beliefs

For the question, “How did your beliefs about teaching for social justice change while you were in the teacher education program?” codes emerged from candidates’ responses. Specifically, after a first read of candidates’ responses to the questions, codes were developed from the data themselves. After a second reading, candidates’ responses were applied to the emergent codes. Finally, after a third reading of the data, the codes were categorized into three overarching themes. The three themes and their twelve codes are as follows:

- **Beliefs**: Explicit ideas about how candidates’ beliefs did or did not change during their time at Boston College
  - No prior knowledge/beliefs about teaching for social justice
  - Expanded/enhanced beliefs
  - Same beliefs
  - Uncertain about change in beliefs
  - Provided a language/vocabulary to existing beliefs
  - Beliefs directed career goals
• **Conceptual understanding:** Ideas about clarification and their conceptual understanding of teaching for social justice
  
  o Conceptual clarification
  
  o Importance of teaching for social justice
  
  o Awareness of injustices/differences
  
  o Power of teachers
  
  o Connection to teaching

• **Practical understanding:** Ideas about learning how to teach for social justice
  
  o Practicing teaching for social justice

Most candidates described their change in beliefs in a variety of ways, and as a result, their responses fit into a variety of themes and codes. Overall, candidates’ descriptions of their change in beliefs complement and enhance the change analyses based on their LTSJ-B scores. Specifically, in their responses candidates not only described a change, but they described the process of change in terms of their prior beliefs, conceptual understanding and practical understanding of teaching for social justice. Additionally, these analyses provide context for candidates’ change in beliefs across time.

Specifically, based on their responses to this question, the majority of candidates (60.4%) described their change in beliefs in terms of a conceptual clarification or understanding of teaching for social justice. Additionally, one-third (33%) of respondents described their change in beliefs in terms of learning the practicality or technicality of teaching for social justice. In other words, they learned “how to teach” for social justice.
Finally, one-third (33%) of candidates described the change (or not) in terms of their beliefs themselves. Each of the themes and candidates’ responses are described in further detail below to contextualize and support the analyses.

**Conceptual understanding**

Most of the respondents (60.4%) in the 2009 cohort described their “change in beliefs” in terms of a better understanding of the concept of teaching for social justice. In fact, 27% of respondents to this question described their change in beliefs in terms of learning the importance of teaching for social justice. As one candidate explained, “It [teaching for social justice] has taken on a new dimension that schooling has an important place in democracy and a great deal can be accomplished through an excellent educational system.” Another described that teaching for social justice “made me realize that teaching for social justice is not only possible, but completely necessary.”

Furthermore, for 19% of respondents, their change in beliefs was demonstrated in their increased awareness of the injustices and difference in the educational system and across America more broadly. For example, one candidate wrote, “I became more educated and gained a more well rounded understanding of the education system in our country and the injustices that lie within our system.” For other candidates, this awareness was contrasted against their prior schooling experiences. As another candidate explained, “I became much more aware of the variety of students that exist, and how many students have a completely different experience than I have had.”

Fifteen percent of respondents described their change in terms of conceptual clarification of teaching for social justice, or learning what teaching for social justice
“means.” One candidate described the process in this way: “Four years ago, I likely would have said that teaching for social justice is more about alleviating the affects of poverty. Now I understand that it is multi-faceted and is about how much more than helping low-income children meet their potential.” Another described that in teaching for social justice “it is very important to not just be critical of society but to be critical of yourself.”

Finally, a small minority of respondents (4%) related their change in beliefs to learning more about the power of the teacher to “impact a student in matters other than classroom learning,” while another small minority (4%) described their change in beliefs in terms of learning how social justice was connected to teaching.

**Practical understanding**

One-third of respondents described their change in beliefs in terms of the technicality and practicality of teaching for social justice. In other words, candidates described their change in beliefs in terms of learning “how” to teach for social justice. In some cases, a candidate described it as, “what [teaching for social justice] looks like in the classroom and how to implement it in my own classroom.” As another candidate explained, “Getting to see ideas put into practice really made this vision realistic and available to me.” A third candidate wrote, “They [my beliefs] matured and evolved from a theoretical standpoint to a practical outlook.”

In some cases, candidates’ change in beliefs meant learning “the many ways” and concrete practices that constitute teaching for social justice. According to one candidate, these concrete practices included, “increasing the font or having line spaces that are
bigger so that kids with vision problems and fine motor skills can be more comfortable in the classroom.” Learning these practices “humbled” one candidate, “by the amount of time, energy, and care it takes to uphold social justice in the classroom.” In contrast, another candidate explained, “I originally thought teaching for social justice was a lot more complicated and difficult to achieve. However, after reading an article about how student teachers were able to ‘teach for social justice,’ the idea became less daunting. I was able to see how my cooperating teacher was teaching for social justice everyday in her classroom, and it just seemed so routine and effortless.”

Beliefs

Finally, one-third of the candidates described their change (or not) in beliefs in terms of the beliefs themselves. For these candidates, some had not considered teaching for social justice prior to coming to Boston College and others did not have the language to describe their existing beliefs. A small percentage described how their beliefs had deepened or were enhanced over the four years at Boston College, and another small group of students explained that their beliefs about teaching for social justice had not changed at all.

Seventeen percent of candidates explained their change in beliefs in terms of their knowledge prior to enrolling in Boston College their freshman year. For these candidates, “teaching for social justice” was not necessarily something that they had previously discussed or conceptualized. As one candidate explained simply, “I never heard of teaching for social justice before BC.” Another candidate elaborated on this idea, “prior to entering the teacher education program social justice and teaching for social justice
were not terms I had really heard or even considered. I came into the program a blank slate as far as social justice and was molded by the ideals that Boston College attempts to instill in its students.” A third candidate described her progression: “At first I didn't really know what it was. Then, I learned what it was, but not really what it meant or what it meant to me.” Along similar lines, one candidate described that the teacher education program helped her to put a language to her existing beliefs: “The teacher education program helped me to put a name to something I already believed and to define it more concretely, allowing me to more easily put it into practice.”

A small minority of candidates (4%) explained that their beliefs had expanded or been enhanced. As one candidate explained, “They [my beliefs about teaching for social justice] became more extensive. I had the foundations prior to coming to BC but while here I extended them and made my beliefs deeper.” In contrast, another small minority (6%) described how their beliefs about teaching for social justice had not changed at all. In this case, responses included, “They [my beliefs] did not [change]” and “I already held many of the same beliefs before entering the program.” Interestingly, the three candidates (6%) who responded that their beliefs had not changed had smaller than average increases in their LTSJ-B logits from the time of entry into the program to graduation. In other words, their description of “no change” closely matched their minimal change in responses on the LTSJ-B scale from entry to exit. Furthermore, although these candidates entered with similar beliefs about teaching for social justice as their peers at the time of graduation their LTSJ-B logit estimates were lower than their peers. In other words, these candidates entered with beliefs that were somewhat consistent with a social justice stance.
and graduated with similar beliefs four years later. In contrast, those whose beliefs changed the most, tended to describe their change in terms of the conceptual and practical changes listed above.

In responding to this question, candidates briefly touched on how their beliefs about teaching for social justice had changed. In the following open response question, candidates elaborated on the major factors in their teacher education program that influenced their beliefs about teaching for social justice.

**Factors influencing beliefs about teaching for social justice**

Like the analyses on the previous open response question, for the question, “*What specific aspects of the teacher education program influenced your beliefs about teaching for social justice?*” codes emerged from candidates’ responses. Specifically, after a first read of candidates’ responses to the questions, codes were developed from the data themselves. After a second reading, candidates’ responses were applied to the emergent codes. The codes and their responses were reviewed a third time to ensure that candidates’ responses matched the codes, which were then grouped into three overarching themes. The themes and their codes are presented below:

- **Student teaching/practica**: Ideas about context and location of student teaching, student teaching experience and practica
- **Coursework**: Ideas about teacher education classes, professors, readings and assignments that influenced teacher candidates’ beliefs about teaching for social justice
  - Classes

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Overwhelmingly, candidates’ responses about the major influences on their beliefs about teaching for social justice were related to their student teaching and practica. In fact, 75% of respondents described their student teaching or practica as major influences. In addition, 58% of respondents pointed to some aspect of their coursework as having a major influence on their beliefs about social justice. These aspects include their classes, professors, readings and assignments, as well as class discussions. Finally, some candidates (10%) pointed to factors outside the Lynch School of Education that influenced their beliefs. Together, these analyses lend support to the multiple regression models built in this chapter; above and beyond candidates’ initial beliefs about teaching for social justice, candidates’ reported student teaching context and location, as well as their perceptions of their faculty’s knowledge of the realities of contemporary schools were related to their beliefs about teaching for social justice at the time of graduation.

Interestingly, while in the multiple regression models candidates’ race/ethnicity appeared to be a significant predictor of their beliefs about teaching for social justice, no candidate explicitly mentioned learning about his or her identity and how it affects his or her
teaching. Each theme is discussed below, with specific examples of candidates’ responses to contextualize and support each finding.

*Student teaching/practicum*

For the vast majority of respondents (75%), their student teaching and practica largely influenced their beliefs about teaching for social justice. Quite simply, as one candidate put it, “Student teaching was the most meaningful and influenced my beliefs.” In particular, one candidate explained, “My pre-practicums and full practicum gave me the opportunities to experience what social justice looks like in the classroom and school.”

In some cases, candidates referred specifically to the location and context of their student teaching experiences, which included economic, racial and linguistic diversity. For example, one candidate explained, “Working in real situations with real students who had different backgrounds forced me to adapt to different ways of teaching.” Another candidate explained, “It [my student teaching experience] really showed me that teaching for social justice and multiculturalism is not just having diverse books available in the classroom or celebrating diversity for a month. However, this practice must be ongoing and the teacher must always find methods that relate to students of all diverse backgrounds and make the curriculum accessible to all students.” A third candidate related her student teaching experience back to her prior schooling experience, “coming from a Catholic school background and working in public schools for all of my practicums, I was introduced into so many different cultures of students and how to address and incorporate these cultures in the classroom. I realized how much my
students can learn from each other, not just from me.” Along similar lines, several candidates described the power of the students in their student teaching placements as major influences. In particular, one candidate wrote, “The students- hearing their stories and seeing the way they come to school everyday wanting to learn when they do not have to.”

Coursework

Often in addition to the student teaching and practica, candidates continually cited their coursework as a major influence of their beliefs about teaching for social justice. Candidates listed particular courses and professors by name when referring to their major influences. One candidate explained, “a few of the theory classes helped with this [changing my beliefs] as well.” Another wrote “Mostly my coursework [influenced by beliefs]. Specifically, ED323 with Prof. XXX and Ethics & Equity in Education with Prof. XXX. In these two courses, I learned that there will always be one group that is supported while another is marginalized. It is our job to lift up the marginalized, bring them to the forefront, and ensure that they receive the same benefits as traditionally advantaged students.” A third candidate explained, “One particular class truly influenced my beliefs about teaching for social justice. One of the best, if not the best, professors that I had at Boston College was Professor XXX. The class, Literacy in the Secondary Ed. Classroom, truly opened my eyes to the participatory culture that we live in today and the importance of social justice in education.” A fourth candidate explained, “Classroom Assessment was also helpful in making me aware of the care that must go into assessments, and how easily one can make them biased. I consider this…class quite
important considering that, as educators, our assessments measure student progress, as well as determine grades, both of which would hurt the student if designed improperly.”

Along these lines, for 19% of candidates, their professors specifically influenced their beliefs about teaching for social justice, including interactions with professors, “hearing from professors,” “working with particular professors,” having “discussions with professors,” as well as their “professors’ attitudes” and “faculty knowledge and enthusiasm.” One candidate explained, “I was influenced most by having almost every professor I’ve had stress their commitment to teaching for social justice both in the syllabus and during lectures and other class time.” Candidates also referred to assignments and readings that influenced their beliefs about teaching for social justice, including “All the requirements [that] include cultural aspects and politics in lesson plans.” Another wrote, “The most influential part of the teaching program was the PPA+. This forced us to notice social justice in our lesson plans. Because we were acting on our lesson plans, this was the best way to influence our beliefs about it. Much more than a journal.”

Factors outside of teacher education

Finally, a small minority (8%) of respondents referred to factors outside the teacher education program that influenced their beliefs. These factors included, psychology classes and sociology classes. As one candidate explained, “Family, School and Society - it actually prompted me to declare my second major in sociology. FSS showed me the deep divide in education that existed and the disparities in our schools.”

Although the teacher education program is housed in a Catholic, Jesuit institution, only
one candidate referred to her religious beliefs as a major influence, explaining, “As I have grown in my faith in walking with Jesus, I have learned from him how to love and have a heart for the lost, sick and poor.”

**Summary**

On average, candidates’ beliefs about teaching for social justice significantly changed from the time they started the teacher education program their freshman year to the time they graduated from the program their senior year. Specifically, as measured by their responses to the items on the LTSJ-B scale, from the time of entry to the time of exit from the teacher education program, candidates were more likely to endorse the concepts and principles outlined on the scale. However, as demonstrated by Hillary and Michelle, at the individual level candidates’ beliefs at each time point as well as their change in beliefs across time varied within each cohort.

More importantly, when looking at the factors related to candidates’ change in beliefs several patterns emerge. Although candidates’ beliefs about teaching for social justice at the time of entry into the program (as measured by the LTSJ-B scale) were the strongest predictors of their beliefs about teaching for social justice at the time of graduation, several variables remained significant predictors above and beyond candidates’ initial beliefs. Specifically, the location of candidates’ student teaching experience was a significant predictor of their beliefs at graduation. Candidates who completed their student teaching in an urban setting tended to have more deeply held beliefs than those who completed their student teaching in a suburban setting. Furthermore, candidates’ race remained a significant predictor of their beliefs about
teaching for social justice at graduation above and beyond their initial beliefs; candidates of color (identified in this study as AHANA) tended to have a stronger commitment to teaching for social justice than their White peers. Finally those who agreed that their teacher education faculty had knowledge of contemporary schools tended to have higher scores on the exit LTSJ-B scale, above and beyond their initial beliefs.

The open response analyses complement, enhance, and lend context to these findings. Specifically, in response to the question asking whether their beliefs about teaching for social justice had changed from the beginning to the end of their teacher education program, candidates not only supported the idea that their beliefs had changed, but also described how their beliefs had (or had not) changed in terms of conceptual and practical understanding of teaching for social justice. Furthermore, again supporting the statistical analyses, candidates’ described the major factors in the teacher education program that influenced their beliefs. Like the findings in the multiple regression models, candidates overwhelmingly referred to their student teaching experiences, coursework, and professors, in particular, as major influences.

In Chapter 7, I examine the findings across the three research questions, explore the implications of these findings combined, discuss the significance and limitations of this research, and offer recommendations for future research that builds on these findings.
CHAPTER SEVEN: CONCLUSION AND IMPLICATIONS

This dissertation attempted to disrupt and expand on the limited understanding of “outcomes” of teacher education by framing teacher candidates’ beliefs—or interpretive frameworks through which individuals filter and mediate practice—as a legitimate and measurable outcome of teacher education for social justice. As we (Cochran-Smith, Reagan, Shakman and the BC TNE Evidence Team, 2009), have discussed elsewhere,

On the one hand, constructing social justice as an outcome is, to a certain extent, buying into the prevailing viewpoint that teacher education is an intervention or policy strategy to be evaluated according to its results, consequences and outcomes. On the other, our intention is not to simply buy into, but rather interrupt, several of the major assumptions driving the outcomes thrust of teacher education (p. 244).

Through the use of psychometrically sound instruments and sophisticated statistical techniques, I examined not only undergraduate teacher candidates’ beliefs about teaching for social justice, but I also explored specific factors related to those beliefs at entry into the program, graduation, and across their undergraduate experience.

This dissertation makes several noteworthy contributions to the research on teacher education for social justice. First, the overarching theoretical framework of this dissertation—which draws on theories of justice in teacher education as well as the quantitative criticalist perspective—responds to some of the criticism of teacher education for social justice and provides a rationale for exploring, from a quantitative lens, the undergraduate experience from the time of entry into a social justice-oriented

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teacher education program to the time of graduation. Second, this dissertation contributes to the small, but growing body of rigorous empirical research that focuses on teacher education for social justice. Finally, this dissertation begins to present a deeper understanding of undergraduate teacher candidates’ beliefs about teaching for social justice, as well as some of the factors that are related to their beliefs. In other words, this study explored not only how, across two cohorts and time, undergraduate teacher candidates’ beliefs about teaching for social justice varied and changed, but it also sought to identify the perceptions and experiences prior to and during the teacher education program that were related to these beliefs. This chapter revisits the theoretical framework guiding this dissertation, highlights the major findings, and discusses how these findings relate to and inform the larger body of research, policy and practice.

**Theories of justice in teacher education and the quantitative criticalist perspective**

Teaching and teacher education for social justice have often been criticized for being “under-theorized” and for not recognizing or drawing on the historical, political, or philosophical roots of justice (Cochran-Smith, Barnatt, et al., 2009; Grant & Agosto, 2008; North, 2006, 2008). In response to this criticism, this dissertation examined theories of justice in (teacher) education that explicitly acknowledge and examine the historical underpinnings of social justice from outside of and within education (e.g., McDonald, 2003, 2005; McDonald & Zeichner, 2009; North, 2006, 2008). These theories highlight the tensions and complexities that are an integral part of teacher education and teaching for social justice, including the competing notions of recognition and redistribution (North, 2006, 2008) and the tensions between individual and institutional
oppression (McDonald, 2003, 2005). Acknowledging these tensions, this study drew on Cochran-Smith’s (2008, 2010) theory of teacher education for social justice, which presupposes that teacher education for social justice is more than a patchwork of activities, but rather a “coherent and intellectual approach” (p. 3) to teacher education. Furthermore, this theory is based on the premise that teaching and teacher education are “inescapably political and ideological activities that inherently involve ideas, ideals, power, and access to learning and life opportunities” (p. 3). Cochran-Smith’s theory of teacher education for social justice also assumes that “teacher education is a key interval in the process of learning with the potential to be a site for educational change” (p. 4), and that teaching and teacher education for social justice are for all candidates, teachers, and students.

Cochran-Smith (2008, 2010) presents three overlapping theories of justice, practice, and teacher preparation. Specifically, Cochran-Smith’s theory of justice addresses the competing and often contradictory notions of justice. Additionally, Cochran-Smith (2008) argues that a theory of justice in teacher education should recognize and build on the knowledge base while simultaneously critiquing it. Cochran-Smith argues that justice in teacher education is about “promoting equity in opportunities and outcomes while challenging classroom and societal structures that reinforce inequities” (p. 13) and respecting all social groups and the knowledge traditions of each group. As Cochran-Smith explains, part of learning to teach for social justice involves learning how to negotiate and navigate the inherent tensions and contradictions in teaching for social justice in “knowingly imperfect ways” (p. 13).
Cochran-Smith’s (2008) theory of practice rejects the notion that teaching practice is “simply what, when or how teachers do things” (p. 14). Instead, Cochran-Smith conceptualizes teaching as an “an amalgam of: knowledge; interpretive frameworks; teaching strategies, methods, and skills; and, advocacy with and for students, parents, colleagues, communities, and others involved in larger social movements” (p. 14). This study examined one aspect of teaching practice, candidates’ beliefs about teaching for social justice, or the interpretive frames that “emerge from a comingling of knowledge, experience, beliefs and values [that] are an essential aspect of practice” (p. 16). As Cochran-Smith describes in detail, key interpretive frames include the ideas that “educators are potential agents for social change,” an asset-based perspective of students’ cultural, linguistic, and experiential backgrounds, an inquiry stance, and an “active stand on society’s current distribution of resources and current respect/disrespect for certain groups” (p. 16).

This dissertation explored the extent to which experiences and perceptions resulting from formal teacher education were related to candidates’ beliefs about teaching for social justice. In other words, this dissertation examined whether and how one social-justice oriented teacher education program was a site for change in terms of candidates’ beliefs about social justice. The LTSJ-B scale, used in this dissertation, was developed to address some of the overarching principles described in Cochran-Smith’s (2008, 2010) theory of teacher education for social justice. As we (Cochran-Smith, Reagan, et al., 2009) have discussed elsewhere, “the items on the [LTSJ-B] scale were chosen to reflect the idea of teaching as an agency for change and to encompass key ideas about justice as
a more equitable distribution of learning opportunities and outcomes and as a recognition of the knowledge traditions and identities of multiple groups” (p. 247). Specifically, the items on the scale represent the idea that teaching for social justice involves: examining of one’s own underlying assumptions of race, class, gender, disability, and sexual orientation (SJ1); discussing topics of culture, race, equity/inequity, and respect/disrespect in all subjects and across all curricula (SJ2, SJ3R, SJ4); providing rich learning opportunities that allow students to build on and critique the knowledge base (SJ8); holding high expectations of all students (SJ6R); viewing students’ cultural, linguistic and experiential backgrounds as assets on which to build instruction (9R); acknowledging and valuing students’ multiple linguistic, experiential, and cultural identities (5R); advocating for students and participating as an activist for change (7, 10R); and challenging the notion of a meritocratic society (11R) and the school and societal structures that perpetuate inequity (12R). In view of that, the concepts and principles described in the LTSJ-B scale acknowledge on the tensions inherent in teaching for social justice and present them in concrete, albeit knowingly imperfect ways.

Finally, Cochran-Smith (2008) presents a theory of teacher preparation for social justice asking, “How do we conceptualize and assess teacher education that prepares teachers to foster justice and supports them as they try to live out this commitment by working in educational settings” (p. 2)? This study attempted to explore some of Cochran-Smith’s recommendations in the theory of teacher preparation including who should teach, how and from/with whom teachers learn, and how teacher education for social justice is assessed. In view of that, this study sought to recast “accountability in
terms of...teacher candidates’ commitments to social justice goals” (p. 24), as operationalized by the LTSJ-B scale in terms of the concepts described above.

This study was limited to assessing only one of the many outcomes of teacher education for social justice, specifically candidates’ beliefs about teaching for social justice. As such, this study could not assess candidates’ methods, skills, and strategies, relationships with families and the broader community, or their advocacy and activism against larger structures that reinforce inequity. Despite these limitations, as discussed further in this chapter, the findings from this study support some of Cochran-Smith’s (2008, 2010) recommendations outlined in a theory of teacher education for social justice.

Given the complexity, contradictions, and critical perspective inherent in teaching and teacher education for social justice, some argue that teacher education and learning to teach for social justice should only be explored through qualitative methods (e.g., Shakman, 2009; King, 2008). However, in this dissertation, I argued that research on teacher education and learning to teach for social justice could be explored using quantitative methods. Framed by Cochran-Smith’s (2008, 2010) theory of teacher education for social justice, this dissertation is inherently political, ideological, social, and value-laden. As described above, and in greater detail in Chapter 2, the concepts and principles addressed in this dissertation, and in the LTSJ-B scale in particular, examine issues of power, race, culture, equity and inequity both at the individual and institutional levels. Furthermore, this dissertation assumed that candidates’ contextual and social
experiences in teacher education were related to an integral part of their teaching practice—their beliefs about teaching for social justice.

Although the quantitative criticalist perspective (Stage, 2007) did not guide or determine the variables entered in or excluded from the models, it provided a rationale for examining critical questions using a large sample (N=134) and primarily quantitative methods. In particular, the Stage argues that that research on and for social justice should be driven by the questions asked, rather than the methods to address such questions. In this dissertation, I explored the variability in candidates’ beliefs about teaching for social justice, as measured by their responses to the entry and exit surveys. In view of the research questions addressed in this dissertation, quantitative methods were appropriate to examine candidates’ beliefs about teaching for social justice as measured by the LTSJ-B scale (Ludlow, Enterline, et al., 2008). Finally, the quantitative criticalist perspective acknowledges the limitations of the variables entered into the model. Later in this chapter, I explore the limitations of the LTSJ-B scale as a measure of candidates’ beliefs about teaching for social justice.

**Candidates’ beliefs about teaching for social justice**

Within this framework, this dissertation sought to address the overarching research question: *What is the relationship among undergraduate teacher candidates’ experiences, perceptions, and their subsequent beliefs about teaching for social justice?* At different points in time, across time, and across cohorts, there were identifiable and measurable perceptions and experiences related to teacher candidates’ beliefs about social justice. These quantitative findings were expanded on and complemented by qualitative
analyses of candidates’ responses to three open-ended questions. In the following section, I elaborate on the findings to each sub-research question.

**Research Question 1: Candidates’ beliefs about teaching for social justice at the time of entry**

The first set of research questions examined candidates’ beliefs about teaching for social justice at the beginning of their freshman year by asking, *At the time of entry into the program, what are teacher candidates’ beliefs about teaching for social justice? What prior experiences and perceptions about teaching are related to their beliefs at entry about teaching for social justice?* Based on descriptive and Rasch rating scale analyses on the LTSJ-B scale, at the beginning of their freshman year, across cohorts, this research found that the candidates in this study entered Boston College with some familiarity about teaching for social justice. On average their beliefs about teaching for social justice aligned with the concepts and principles on the LTSJ-B scale that represent what are commonly understood as “good teaching” practices. Specifically, across cohorts, candidates tended to agree with the importance of reflecting on their own beliefs and incorporating diverse, multicultural curricula in the classroom. Yet, on average, at the time of entry into the program, candidates were uncertain about some concepts of teaching for social justice, such as working with historically marginalized student populations, including English language learners. Furthermore, candidates tended to reject the most controversial concepts outlined in the LTSJ-B scale, including the notion that part of the teacher’s role is to challenge school and societal inequity. These findings were consistent at the individual cohort-level and when both cohorts were combined.
Furthermore, these findings were consistent with previous analyses on entering teaching candidates (Enterline, et al., 2008; Ludlow, Pedulla, et al., 2008; Ludlow, Enterline, et al., 2008).

Previous research on teaching and teacher education for social justice suggests that candidates’ identity, what they believe, and what they bring to teacher education impacts and interacts with how they learn to teach for social justice during the preservice period (Burant & Kirby, 2002; Wiggin, Follo & Eberly, 2007; Rios & Montecino, 2007; Urrieta, 2007). Accordingly, this research question looked at candidates’ beliefs at the time of entry into the program as a baseline measure from which point their beliefs would change and develop (or not) through their undergraduate teacher education experience. The candidates in this study enrolled in the Boston College teacher preparation program with a wealth of prior experiences and perceptions that may have influenced or interacted with their beliefs about teaching for social justice. In general, based on their responses to the entry survey, almost all candidates had prior experiences working with children. Furthermore, at the time of entry into the program, student learning was of paramount importance to all teacher candidates. However, as demonstrated by the correlational and multiple regression analyses, it was not candidates’ prior experiences with children or their commitment to student learning that were related to their initial beliefs about teaching for social justice. Rather, across cohorts, at the time of entry into the program, candidates’ goals for teacher preparation—or what they wanted to learn while in the teacher preparation—were significantly related to these beliefs about teaching for social justice. Specifically, those who wanted to learn how to promote understanding across
different groups, how to prepare students to live in a democracy, and become knowledgeable about the social and political issues that affect teaching and schooling, tended to have more deeply held beliefs about teaching for social justice than those whose goals for teacher preparation were not aligned with these ideas. These findings are supported by the empirical literature on learning to teach for social justice that found that candidates who were open to learning about concepts related to teaching for social justice, tended to have more deeply-held beliefs about teaching for social justice (e.g., Jones & Enriquez, 2009; Levine-Rasky, 2001).

Yet beyond candidates’ goals for teacher preparation, at the cohort level, and when cohorts were combined, different variables were significantly related to candidates’ beliefs about teaching for social justice. Specifically, for the 2009 cohort, in addition to candidates’ endorsement of the items in the “goals for teacher preparation” scale, whether candidates had a family member in education was also significantly related to their beliefs about teaching for social justice. In contrast, for candidates in the 2010 cohort, the extent to which candidates endorsed the importance of learning how to accommodate diversity in the classroom significantly predicted the extent to which candidates’ beliefs about teaching for social justice aligned with the statements on the LTSJ-B scale. Finally, when both cohorts were combined, beyond their endorsement of the items on the “goals for teacher preparation” scale, the extent to which candidates’ participation in BC athletics influenced their enrollment in BC, and the extent to which candidates were confident in their ability to diversify lessons significantly predicted their level of
commitment to teaching for social justice, as measured by their endorsement of the items on the entry LTSJ-B scale.

Looking across these analyses, because of the differences in the significant predictors at the cohort-level, and across cohorts, it is difficult to identify a discernable pattern of reported experiences and perceptions that were related to candidates’ beliefs about teaching for social justice at the beginning of their freshman year. As the conceptual and empirical literature suggests, candidates tend to enter teacher education programs with a wide variety of experiences and perceptions. Some of these experiences and perceptions may have been captured on the entry survey, however there were many that were not. In fact, when both cohorts were combined in the multiple regression analyses, only 23.5% of the variance in candidates’ beliefs about teaching for social justice was accounted for by the predictor variables. While this demonstrates a statistically significant proportion of the variance accounted for in candidates’ beliefs about teaching for social justice, it also suggests that most of the variance (76.5%) in teacher candidates’ beliefs was not accounted for. In other words, given the range of candidates’ experiences prior to entering the teacher education program, there were many different factors that may have contributed to candidates’ beliefs about teaching for social justice at the time of entry into the program. Furthermore, these findings suggest that candidates’ beliefs about teaching for social justice at the time of entry into the program may have been related to a complex interaction between their identity, prior experiences, and perceptions, something that was not entirely captured on the entry survey (Jones & Enriquez, 2009; Gomez, et al., 2007).
Research Question 2: Candidates’ beliefs about teaching for social justice at the time of graduation

The second set of research questions examined candidates’ beliefs about teaching for social justice at the end of the teacher preparation program by asking, At the time of graduation, what are teacher candidates’ beliefs about teaching for social justice? What aspects of their reported experiences in the teacher education program, perceptions of preparedness, and satisfaction with the program are related to candidates’ subsequent beliefs about social justice at graduation? Based on descriptive and Rasch rating scale analyses on the LTSJ-B scale, at the end of their teacher education program, candidates’ beliefs about teaching for social justice tended to align with most of the concepts and principles described on the LTSJ-B scale. In particular, across cohorts, candidates tended to endorse the “easiest items” on the LTSJ-B scale, such as incorporating diverse cultures into the curriculum and openly discussing racism and inequity in the classroom, as well as those concepts that were “more difficult to endorse” such as disagreeing that the primary role of English language learners is to assimilate into American society. However, at the time of graduation from the program, on average, candidates were uncertain about the most difficult to endorse item on the LTSJ-B scale—particularly pertaining to macro level issues—including rejecting the ways in which society and the education system privilege certain groups over others. These findings were also consistent with previous analyses on graduating undergraduate teaching candidates (Enterline, et al., 2008; Ludlow, Enterline, et al., 2008; Ludlow, Pedulla, et al., 2008).
When given the opportunity to describe what teaching for social justice means, candidates provided a variety of responses centered on opportunities, student learning, relationships and respect, and the role of teacher as activist. In large part, candidates’ descriptions of teaching for social justice matched their responses to the LTSJ-B scale. Specifically, in their responses, candidates tended to focus on micro-level issues of teaching, rather than explicitly describing how teaching for social justice relates to macro-level issues of school and societal change. Additionally, these responses also demonstrate the variety of ways in which candidates interpreted and understood teaching for social justice. In other words, candidates did not describe teaching for social justice in the “same way.” As Cochran-Smith and colleagues have suggested (Cochran-Smith, Shakman, et al., 2009), given the range of candidate responses, this provides some evidence that teacher education for social justice is not “indoctrination.” These responses also demonstrated candidates’ misconceptions about teaching for social justice, including the idea that teaching for social justice means providing equal opportunity “regardless” of race, linguistic, socio-economic or experiential backgrounds.

By the end of their senior year, the candidates in this study had four years of experience in the same social-justice oriented teacher education program. As demonstrated by the findings from the correlational and multiple regression analyses, at the end of their teacher education program, candidates’ student teaching experiences, and perceptions of their teacher education faculty’s knowledge significantly predicted their beliefs about teaching for social justice. In particular, across cohorts, candidates who had completed their student teaching placement in what they described as an urban location...
tended to have higher scores on the LTSJ-B scale than those who completed their student teaching in a suburban location. In addition, candidates who perceived their teacher education faculty as having knowledge of contemporary schools also tended to have more deeply held beliefs about teaching for social justice than those who believed that their teacher education faculty knew very little about contemporary schools.

Looking across these analyses, there was a discernable pattern at the time of graduation. These findings are supported by the research on the influence of coursework (e.g., Chubbuck, 2007; Graziano, 2008; Hyland & Noffke, 2007; Lenski, et al., 2005; Pugach, et al., 2008), and student teaching or field experiences (e.g., Adams, et al., 2005; Cherian, 2007) on candidates’ beliefs about teaching for social justice. In contrast to the wide variety of experiences and perceptions that candidates brought with them when they started the teacher education program, candidates’ shared experiences during their teacher preparation program were related to their beliefs about teaching for social justice at the time of graduation.

Another important finding is that for the 2009 cohort and when both cohorts were combined, candidates’ race/ethnicity was also a predicting variable of candidates’ beliefs about teaching for social justice; those who self-identified as candidates of color (coded as AHANA in this study) tended to have stronger commitment to teaching for social justice than those who self-identified as White. However, for the 2010 cohort, candidates’ race/ethnicity was not a significant predictor of their beliefs about teaching for social justice. This finding could be a function of sample size; in the 2010 cohort, only 6 candidates (9.6% of the total cohort) self-identified as AHANA. Furthermore,
when cohorts were combined, candidates’ race/ethnicity appeared as a significant predictor of their beliefs about teaching for social justice.

It is also interesting to note that although across cohorts, candidates’ race/ethnicity was a significant predictor of their beliefs about teaching for social justice at the time of graduation, it was not a significant predictor at the time of entry into the program. Previous research suggests that as candidates learn more about how their identity, past experiences, and beliefs affected their teaching and learning, race may have played a larger factor in terms of their beliefs about teaching for social justice (Au & Blake, 2003; Bennett, 2002). This finding at graduation, but not at entry, could be a function of this growing understanding. However, as discussed later in the chapter, further research is necessary to explore this phenomenon.

**Research Question 3: Candidates’ changing beliefs about teaching for social justice from entry to exit**

The third set of research questions examined the change in candidates’ beliefs from the time of entry into the program to the time of graduation by asking, *How do teacher candidates’ beliefs about teaching for social justice change and develop from the time of entry into the program to the time of graduation? What experiences and perceptions about teaching and preparedness are related to a change in beliefs about teaching for social justice?* Based on the results of the dependent means t-tests, candidates’ scores on the LTSJ-B scale at the time of graduation were statistically significantly higher than their scores at the time of entry into the program. In other words, candidates’ beliefs about teaching for social justice were significantly more aligned with
the concepts and principles outlined on the LTSJ-B scale at the end of their senior year than they were at the beginning of their freshman year. This change was evident in terms of candidates’ level of endorsement of, or shift in likelihood of responding to, particular items on the LTSJ-B scale. However, as demonstrated by the examples of Hillary and Michelle, as well as the spread of candidates’ scores on the LTSJ-B scale at the time of entry and exit, candidates varied greatly in terms of their initial beliefs, beliefs at the time of graduation, and their change in beliefs about teaching for social justice. As a result, it was possible to identify factors that were related to the variation in candidates’ beliefs about teaching for social justice.

When asked in the open response question to describe how (if at all) their beliefs had changed through the duration of their teacher education program, candidates’ responses tended to parallel their change in scores on the LTSJ-B scale. Candidates in the 2009 cohort described their change in beliefs in terms of conceptual and practical understanding, as well as an increased awareness of injustices in schooling and society. Furthermore, those whose beliefs did not change tended to articulate a lack of change in both the open response analyses as well as in their responses to the LTSJ-B scale at entry and exit. Like the previous open response questions, these analyses also provided an opportunity to understand candidates’ misconceptions. In particular, a few candidates stated that they learned how “easy” it was to teach for social justice. While it is important to learn practical skills, some candidates may have missed the complexity and inherent tension in teaching for social justice by suggesting that teaching for social justice could be reduced to discreet skills and strategies in the classroom.
As demonstrated by the correlational and multiple regression analyses, candidates’ change in beliefs about teaching for social justice were examined by looking at candidates’ beliefs about teaching for social justice at the time of graduation in relation to their entering beliefs as well as the significant predictors of their exiting beliefs about teaching for social justice. Across cohorts and analyses, although candidates’ entering beliefs about teaching for social justice were the strongest predictors of their beliefs about teaching for social justice at the time of graduation from the program. As supported by much of the literature (Burant & Kirby, 2002; Shakman, 2009; Wiggins, et al., 2007), who candidates were and what they believed when they entered the teacher education program were significantly related to what they believed four years later. However, candidates’ experiences during and perceptions at the end of the program were also significantly related to their beliefs about teaching for social justice. In particular, above and beyond their initial beliefs, the location of candidates’ student teaching experience and their perceptions of the teacher education faculty’s knowledge of contemporary schools were significantly related to their beliefs about teaching for social justice at graduation. In addition, for the 2009 cohort and when both cohorts were combined, candidates’ race/ethnicity was also a significant predictor of candidates’ beliefs about teaching for social justice, where candidates of color tended to have more deeply held beliefs about teaching for social justice than their White peers.

The qualitative analyses on factors in the teacher education program that influenced candidates’ beliefs about teaching for social justice complement and expand on these findings. Indeed, candidates overwhelmingly referenced their student teaching
experience as a major influence of their beliefs about teaching for social justice, citing it as an opportunity to learn about the realities of schools as well as educational experiences different from their own. In addition, candidates pointed toward their coursework including particular courses, assignments and professors who greatly impacted their beliefs about teaching for social justice.

**Overall findings**

Taken together, these research findings begin to present a picture of the undergraduate teacher candidate experience at Boston College. While no causal statements can be made, the quantitative and qualitative analyses suggest that candidates’ change in beliefs from the time of entry into the teacher education program to the time of graduation were related to their prior beliefs, identity, and particular experiences during their teacher education program. Specifically, candidates’ beliefs about teaching for social justice were the strongest predictors of their beliefs at the time of graduation. This finding is supported by Wideen, Mayer-Smith, and Moon (1998) who argue that candidates’ beliefs and perspectives at the beginning of formal teacher preparation may influence what they learn during their teacher education program. Yet, there were also identifiable experiences and perceptions that were significant predictors of candidates’ beliefs above and beyond their beliefs about teaching for social justice at the time of entry into the program. As a result, this research provides some evidence that formal teacher preparation may not be a “weak intervention” (Lortie, 1975). Rather, in a program with an explicit overarching theme that is woven through out the program,
candidates’ experiences with professors, in coursework, and in student teaching were related to the growth and development of their beliefs about teaching for social justice.

In view of these findings, this dissertation supports previous research indicating that the LTSJ-B scale is sensitive to measuring change across time (Enterline, et al., 2008; Ludlow, Enterline, et al., 2008). In addition, this study demonstrated that the entry and exit surveys were sensitive measures in identifying significant factors related to candidates’ beliefs about teaching for social justice. In other words, this dissertation used sound instruments and quantitative methods to analyze candidates’ responses to the entry and exit surveys in relation to their responses on the LTSJ-B scale.

It is also important to place this study within the larger BC TNE Evidence Team portfolio of studies. Within this portfolio, this study provides a valuable but partial understanding of the topic of learning to teach for social justice. Following Greene and Caracelli (2003), from a dialectical mixed methods approach, “the tensions created by studies’ differing assumptions and ways of knowing are regarded as generating richer understandings rather than incompatible approaches” (Cochran-Smith, et al., 2009, p. 258). The power of this study is that it adds to the findings of other rigorous studies that examine learning to teach for social justice. In particular, this is the only study that longitudinally examines undergraduate teacher candidates’ change in beliefs across time and the perceptions and experiences related to their change.
Discussion and interpretations

This study supports and raises questions in response to the existing body conceptual and empirical literature on teacher education for social justice. Specifically, the findings from this dissertation address some of Cochran-Smith’s (2008, 2010) recommendations in her theory of teacher education for social justice as well as McDonald and Zeichner’s (2009) practices in social justice teacher education. In particular, the findings from this study address issues of recruitment and selection of teacher candidates and faculty, as well as the nature, type, and quality of coursework and field experiences.

In her theory of teacher education for social justice, Cochran-Smith (2008, 2010) argues that the recruitment and selection of teacher candidates are integral components of teacher preparation for social justice. Specifically, Cochran-Smith (2008) recommends: “diversifying the teaching force in terms of cultural, racial, and linguistic backgrounds; and recruiting teachers whose beliefs, experiences, and values are consistent with social justice goals” (p. 20). The findings from this dissertation support the recruitment of candidates whose beliefs at the beginning of formal teacher education are closely aligned with a social justice stance. As the results of this dissertation suggest, across both cohorts, candidates’ beliefs about teaching for social justice at the beginning of the program tended to be the strongest factors related to their beliefs at the time of graduation. In other words, although, on average, candidates’ beliefs about teaching for social justice changed and developed from the time of entry to graduation from the program, those who entered
with a relatively weaker commitment to teaching for social justice also tended to leave
the teacher education program with an increased, but weaker, commitment to teaching for
social justice than those who started the program with beliefs that were more closely
aligned with a social justice stance.

Although Sleeter (2009a) argues that “admission to teacher education is rarely
denied on the basis of unwillingness to teacher diverse students well,” (p. 616), the idea
of assessing candidates’ beliefs and other attributes as part of the recruitment and
selection process in teacher education is not new. Martin Haberman (Haberman, 1993,
1995; Haberman & Post, 1998) has long argued that recruiting, assessing and selecting
prospective teachers into teacher education programs based on their beliefs and attributes,
such as their perseverance, is a better way to ensure effective teachers for urban schools
than through formal teacher preparation. Currently, these recruitment and admissions
practices exist in some non-university based teacher education programs, such as Teach
for America, that recruit candidates in terms of their attributes and commitments as well
as their previous academic performance (Teach for America, 2011).

In relation to teacher education for social justice, McDonald and Zeichner (2009)
explain that the practice of recruiting and selecting candidates whose beliefs tend to align
with a social justice stance, is due in part to,

“the limited power of preservice teacher education to influence prospective
teachers’ worldviews and commitments toward equity and social justice (Haberman
& Post, 1992). This pragmatic stance of choosing to work with prospective teachers
who arrive wanting to learn how to teach for social justice, and showing some
potential to teach in this way, is supported by the evidence on teacher learning (Hammerness, Darling-Hammond, & Bransford, 2005) (p. 603).

The findings from this dissertation support the idea of assessing candidates’ beliefs about teaching for social justice as part of the selection process, and raise questions for the recruitment, selection, and admissions processes of teacher candidates at Boston College. Does recruitment of candidates, in part, on the basis of their commitment to teaching for social justice align with the overarching mission and themes of the teacher education program? What would recruitment and selection on the basis of candidates’ beliefs look like at the undergraduate and graduate levels?

In addition, the results of this dissertation support the recruitment of candidates of color. As McDonald and Zeichner (2009) describe, recruiting candidates of color “has been defended on the grounds that a more diverse teaching force is needed in order to provide an increasingly diverse public school population with a high quality education” (p. 602). Furthermore, McDonald and Zeichner (2009), suggest, “diverse cohorts of teacher education students…will create the learning conditions needed to education teachers to be successful in today’s schools” (p. 602). Similarly, Cochran-Smith (2008) explains, “research suggests that the experiences and maturity of minority and non-traditional candidates often make them more likely to succeed in high-need areas than traditional candidates (Haberman, 1991, 1996; Clewell & Villegas, 2001; Villegas, et. al, 1995)” (p. 20). This dissertation provides an additional rationale for the explicit recruitment and selection of candidates of color in social-justice oriented teacher education programs. Specifically, this study supports the recruitment of teacher
candidates of color based on the finding that at graduation, above and beyond candidates’ initial beliefs about teaching for social justice, their race/ethnicity was a significant predictor of their exiting beliefs about teaching for social justice. Candidates of color tended to have a stronger commitment to teaching for social justice than their White peers. If a social justice stance is an intended outcome of teacher education for social justice, and at the time of graduation candidates who self-identified as AHANA tended to have a stronger commitment than their White peers, this dissertation supports the recruitment of candidates on color on the basis of their commitment to teaching for social justice, as well.

This dissertation also raises questions about the recruitment of faculty who are connected to and knowledgeable about the realities of contemporary schools. As Haberman (1995) argues, “the majority of teacher education faculty, in any program, should be experienced…classroom teachers who have been identified as effective” (p. 32). In other words, Haberman suggests that teacher educators should be knowledgeable and have experience working as teachers in contemporary schools, and should ground their courses in what goes on in schools. Furthermore, to some extent, the Boston College teacher education program supports the idea that the teacher education faculty should have knowledge of what goes on in contemporary schools. The Boston College exit survey explicitly includes items in this area for the purpose of examining candidates’ perceptions about and evaluation of their teacher education faculty in this area (Ludlow, Pedulla, et al., 2008).

On a somewhat related note, this idea is also supported Cochran-Smith’s (2008)
theory of teacher education for social justice. Specifically, Cochran-Smith argues, “candidates [should] learn in the company of their more experienced mentors who are also engaged in the life-long processes of teaching “against the grain” (Cochran-Smith, 1990) by working with others in inquiry communities to construct ‘local knowledge of practice’ that enhances equity, access, and participation (Cochran-Smith & Lytle, 1999)” (p. 29). Furthermore, as Westheimer and Suurtamm (2009) suggest, “teacher educators can help bridge the disconnect between teacher education and practice by building strong links in the K-12 community, and teaching social justice in a way that clearly connects it with practice” (p. 591). Whether these mentors serve as faculty in the teacher education program, cooperating teachers during candidates’ field experiences, or supervisors in the field, the mentors should work with candidates to engage in critical dialogue of what social justice looks like in practice and the tensions and contradictions that play out in the realities of the classroom.

In this dissertation, candidates who viewed their teacher education faculty as knowledgeable about the realities of contemporary schools tended to have stronger commitment to teaching for social justice at the time of graduation from the teacher education program than those who did not. Further research is needed to explore why the candidates who endorsed the statement that their faculty had knowledge of the realities of contemporary schools tended to have beliefs more aligned with a teaching for social justice stance. This study did not explore whether candidates who endorsed this item took courses from different faculty members than those who did not view their faculty as having knowledge of contemporary schools, or whether these candidates viewed the same
faculty members differently. However, this finding raises questions about the importance of candidates’ perceptions and why those who perceived their teacher education faculty as knowledgeable about the realities of contemporary schools tended to have a stronger commitment to teaching for social justice.

Additionally, the findings from this dissertation raise questions about the location, nature, and quality of field experiences. As McDonald and Zeichner (2009) explain, “[a]lthough research is largely inconclusive about the characteristics of…school-based experiences that further the goal of preparing teachers to teach for social justice, it is clear that from studies to date that it is the particular quality of these experiences that matters rather than merely placing student teachers in schools with diverse learners” (p. 604). Sleeter (2009) recommends an “extensive, carefully designed mix of field experiences” (p. 619), that includes working with cooperating teachers “who can support inquiry-based, democratic, social-justice oriented practice.” Interestingly, in this study, the location of candidates’ field experiences was a significant predictor of their beliefs about teaching for social justice at the time of graduation. Specifically, candidates who completed their student teaching experience in an urban setting tended to have stronger commitment to teaching for social justice than those who reported that they completed their student teaching in a suburban setting.

This finding raises questions about the nature and quality of candidates’ student teacher experiences: What was different about the student teaching experiences in the reportedly urban and suburban locations? Was there a lack of coherence across settings between the practices observed and demonstrated in the student teacher experiences and
the practices and theory discussed by faculty in coursework? Did Boston College have closer relationships with some schools in particular settings than others? Did the urban placements provide a context that supported “inquiry-based, democratic, social justice practice” more so than the suburban placements? Or did the teacher candidates who selected to complete their student teaching experience in urban schools tend to espouse these beliefs and practices more so than their peers in suburban settings?

Responding to the critiques

In their review of the critiques of teacher education for social justice, Cochran-Smith, Barnatt, Lahann, Shakman, and Terell (2009) unpack four major, overlapping criticisms of teacher education for social justice, in terms of the “ambiguity critique,” “knowledge critique,” “ideology critique,” and “free speech critique.” They suggest that the “knowledge critique” or the claim that the goal of teacher education for social justice is to build self-esteem rather than promote student learning is particularly “deadly” (e.g., Crowe, 2008; Stern, 2008). As Cochran-Smith and colleagues explain, this critique is based on the assumptions that “contemporary versions of teacher education for social justice are part of the long lineage of American progressive education, which historically has been anti-knowledge…[and] that there is an utter dichotomy between justice and knowledge” (p. 629). In other words, the knowledge critique is based on the premise that “if teacher preparation programs are promoting justice, then they are not promoting pupils’ learning of academic knowledge and skills, which is the rightful and major purpose of schooling in society” (p. 629). By extension then, this critique holds that teachers and teacher candidates who are committed to and hold strong beliefs about
teaching for social justice are more concerned with promoting social and political change than they are with their students’ learning.

Although not apparent in the correlational and multiple regression analyses, the findings from this dissertation “expose the fact that the choice between knowledge and social justice is artificial and based on an utterly false dichotomy” (Cochran-Smith, Barnatt, et al., 2009, p. 635). Specifically, candidates in this study were asked on the entry and exit surveys about the importance of student learning and their ability to make a positive impact on the learning of their students. As the descriptive analyses on the entry and exit surveys suggest, all candidates in the Boston College teacher preparation program were concerned about and invested in their students’ learning. Specifically, on the entry survey all candidates described a successful teacher as one who teaches so that all students can learn and promotes academic development. Furthermore, across cohorts, 100% of candidates viewed helping children reach their highest potential and learning how to improve student achievement as goals for their teacher preparation program. On the exit survey almost all candidates rated their ability to make a significant difference in the learning of their students favorably. Finally, when candidates in the 2009 cohort were asked to describe teaching for social justice, they overwhelmingly pointed to student learning and the variety of ways to meet the needs of all students. In other words, these analyses suggest that student learning was a priority for all candidates, including those whose beliefs about teaching matched the concepts and principles outlined on the LTSJ-B scale. These findings provide evidence that teaching for social justice and student learning are not mutually exclusive.
Re-examining the LTSJ-B scale and other variables

There is an inherent tension in trying to measure a complex construct such as candidates’ beliefs about teaching for social justice. Although the LTSJ-B scale is grounded in theory and research on teaching for social justice and is psychometrically sound and sensitive to measuring change, it is also worthy of critique. As the quantitative criticalist perspective (Baez, 2007; Stage, 2007) suggests, part of applying quantitative methods to critical questions involves reflecting on and critically assessing the variables excluded and included in the models, to ensure the “adequacy of proxies for complex and theoretical constructs” (Perna, 2007, p. 62). Accordingly, I raise several questions and about the LTSJ-B scale as an appropriate measure of candidates’ beliefs about teaching for social justice.

There is an implicit assumption that the principles and concepts addressed in the LTSJ-B scale are a representative sample of those beliefs that are aligned with a social justice stance. As previously discussed in this dissertation, the concepts and principles on the LTSJ-B scale represent only a limited sample of the universe of possible beliefs related to teaching for social justice. Furthermore, by their very nature, the items on the scale are limited in their difficulty or complexity of the concepts presented (Cochran-Smith, Reagan, et al., 2009). Specifically, from a measurement perspective, the items on the scale necessitated a preferred or “correct” response, one that would indicate a stronger commitment to teaching for social justice. However, given the complexity, nuance, and tensions inherent in teaching for social justice, some beliefs—those that are highly context-dependent and do not lend themselves to a “correct” answer—were not measured.
on the LTSJ-B scale. For example, the LTSJ-B scale does not delve deeply into how candidates conceptualize teaching students to think critically or how their conceptualizations could look very different from one context to another. On a related note, as the Rasch analyses in this study suggest, at the time of graduation from the program, the LTSJ-B scale was “too easy” for the candidates with the strongest commitment to teaching for social justice. In other words, for many candidates, there was a ceiling effect or little room for candidates to increase their scores on the LTSJ-B scale. However, the LTSJ-B scale is limited in its capacity to measure change and development beyond a certain point. In other words, the scale itself is limited in the range of complex issues about teaching for social justice that it covers (Ludlow, et al., 2008; Enterline et al., 2008).

Furthermore, with any instrument, relying too heavily on the measure itself may reduce teaching for social justice to an overly simplistic interpretation of a complex construct. This is not to say that the LTSJ-B scale does not provide valuable information about candidates’ beliefs about teaching for social justice. Rather, overreliance on the LTSJ-B scale may distort the underlying complexity of candidates’ beliefs about teaching for social justice. As Shakman (2009) argues, learning to teach for social justice involves “complexity, tensions and lack of simple answers” (p. 321), all things that are “not easily measured.” In other words, the LTSJ-B scale, and the findings from this dissertation, can be viewed as a potentially valuable, but necessarily partial and limited examination of undergraduates’ beliefs in a social justice-oriented teacher education program.
Implications for future research, policy, and practice

This study has several implications for research, policy and practice. Specifically, this study suggests that more research is needed to explore the experiences of undergraduate teacher candidates in social justice-oriented teacher education programs. Furthermore, more research is needed to examine how candidates’ beliefs continue to develop once they have started their teaching careers. As a legitimate and measurable outcome of teacher education, candidates’ beliefs about teaching for social justice should be examined and explored beyond the pre-service years. Further research is also recommended to examine how candidates’ and teachers’ beliefs relate to or mediate their practice (or reported practices once in the classroom). Teacher education policy and practice should support teacher candidates particularly in their coursework, interactions with professors, student teaching experiences and into their professional careers.

Implications for research

The review of the empirical literature on teacher education and learning to teach for social justice, presented in Chapter 2, suggests that there have been few studies that examined the experiences of undergraduate teacher candidates. The findings from this dissertation suggest that, in the context of a social justice oriented teacher education program, undergraduate teacher candidates’ beliefs about teaching for social justice have the potential to change within certain contexts. Given these findings, further longitudinal, qualitative and mixed methods research on the undergraduate teacher candidate experience is recommended, particularly in terms of who the candidates are and what they bring with them when they enroll in the teacher education program, their coursework
while in the program, the faculty with whom they interact, and their student teaching experience across a variety of settings. In particular, I would recommend a longitudinal sequential mixed methods study (Creswell & Plano Clark, 2007). In this design, the LTSJ-B scale would be administered to a cohort of undergraduate teacher candidates at the time of entry into the program. Based on their responses to and scores from the LTSJ-B scale, a stratified sample of candidates, representing a range of commitments to teaching for social justice, would be selected as participants in qualitative case studies. These candidates would be followed throughout the undergraduate experience, through observations, interviews, and candidate and student work samples. This design would capitalize and build on the strengths of quantitative and qualitative research and begin to untangle the complex process of learning to teach throughout the undergraduate teacher education experience, which to my knowledge has not otherwise been explored.

Further investigation of how candidates’ identities, particularly in terms of their race/ethnicity, influence and interact with their beliefs about teaching for social justice is also warranted. In a review of the literature on policies and practices in teacher education for social justice, Wiedeman (2002) found a paucity of research on the experiences of candidates of color in teacher education programs for social justice. In the empirical review of the literature discussed in Chapter 2, four recent studies explored the relationship between identity and learning to teaching through the experiences of candidates of color in teacher education programs (Au & Blake, 2003; Bennett, 2002; Bennett, et al., 2000; Johnston & Parsons, 2007). These studies explored candidates’ roles as “cultural consultants” (Johnston & Parsons, 2007), the process of inquiry in an
initiative designed to support candidates in predominantly White institutions (Bennett, 2002; Bennett, et al. 2000), and the role of racial, cultural, and community identity in learning to teach (Au & Blake, 2003). As noted earlier in this chapter, in this study, candidates’ races/ethnicities were significantly related to their beliefs about teaching for social justice at the time of graduation, but not at the time of entry into the program. Further exploration of this phenomenon with qualitative methods could shed light on and help to build a theoretical understanding of the influence of race/ethnicity on candidates’ beliefs about teaching for social justice.

In addition, further research is needed to follow new teachers from their teacher education experiences into their first years of teaching. Learning to teach for social justice is an ongoing process that does not end at the preservice period (Cochran-Smith, 2008, 2010). In the review of the empirical literature presented in Chapter 2, five studies examined beginning teachers’ experiences looking back on the influence of formal teacher preparation (Athaneses & deOliviera, 2007; Chubbuck & Zemblyas, 2008; Flores, 2007; Johnson, 2002; LaBoskey, 2006). However the findings from these studies were inconclusive with some supporting the argument that teacher education for social justice impacted beginning teachers’ beliefs and practice (e.g., LaBoskey, 2006), and others finding that the teacher education program had little influence (e.g., Johnson, 2002). Along these lines, Cochran-Smith (2008) argues that teacher preparation “interacts in complex ways with the conditions and cultures of schools and the larger accountability contexts in which these are embedded” (p. 4). A study continuing beyond the end of formal teacher preparation could allow for the investigation of how candidates’
beliefs continue to change and develop once in the classroom. As we (Enterline, et al., 2008) have previously examined, into the first year of teaching, alumni of a social justice-oriented teacher education program tended to maintain similar beliefs about teaching for social justice as they did at the time of graduation. But what about as they progress into the second year and beyond? Further research could explore the influence of the teacher education program on candidates’ beliefs about teaching for social justice well into their professional careers. Additionally, further research could shed light on how beginning teachers’ beliefs about teaching for social justice mediate and filter their teaching practice. In other words, how do beginning teachers act on their beliefs once they are in the classroom?

Finally, given the nature of the LTSJ-B scale, research in one further direction is recommended, specifically across a variety of institutions including those with explicit missions to prepare candidates to teach for social justice as well as those that do not have explicit themes of social justice. Although the LTSJ-B scale has been used at many institutions nationally and internationally (Ludlow, Pedulla, et al., 2008; Ludlow, et al., 2010), the administration of the LTSJ-B scale has only taken place in institutions with social justice-related themes. A comparative study could provide evidence into the development and change of candidates’ beliefs within and across these different, overarching contexts.

**Implications for policy and practice**

This research also has implications for policy and practice in teacher education. Specifically, while the findings of this study are by no means conclusive, this research
supports others’ recommendations regarding recruiting a culturally, racially, ethnically, linguistically, and experientially diverse teacher candidate body whose beliefs align with the social justice mission of the institution (Cochran-Smith, 2008, 2010; McDonald & Zeichner, 2009). In this study, race appeared as a significant predictor of candidates’ beliefs about teaching for social justice. In particular, candidates of color tended to have a stronger commitment to teaching for social justice than their White peers. As Sleeter (2009) suggests “preservice teachers of color tend to bring a richer multicultural knowledge base than their White counterparts, and are more likely to bring a commitment and sense of urgency to multicultural teaching, social justice, and providing children of color with an academically challenging curriculum” (p. 616-617). Additionally, acknowledging that candidates’ beliefs about social justice at the time of entry into the program were the strongest predictors of their beliefs at the time of graduation, this study supports further exploration of the practice of recruiting and admitting candidates whose beliefs align with a social justice stance.

This finding also points to the importance of recruiting faculty members who have experience in schools and can articulate the conceptual and practical realities of teaching for social justice (Cochran-Smith, 2008, 2010; Westheimer & Suurtamm, 2009), bridging the disconnect between theory and practice. McDonald’s (2003, 2005) framework developed from a study of two social-justice oriented teacher education programs in California can provide some insight here. McDonald analyzed the implementation of social justice in coursework and fieldwork in terms of the development of conceptual and practical tools of teaching for social justice. In her study, McDonald found that the
implementation of social justice varied in practice along specific dimensions that inform prospective teachers' opportunities to learn, including variation in terms of emphasis on conceptual and practical tools relating to social justice as well as variation at individual, organizational, and institutional levels. For the candidates in this study, some teacher education faculty may have emphasized conceptual tools over the practical tools that could be directly applied to contemporary schools.

Additionally, given that at the time of graduation, candidates tended to be uncertain about challenging injustice and inequity at the institutional level, the findings from this study suggest that the Boston College teacher education program could further emphasize institutional structures that tend to perpetuate patterns of inequity. Based on the results of this study, candidates could articulate teaching for social justice in terms of microlevel, local issues however, they were uncertain about social justice in terms of the macrolevel, societal issues. Sleeter (2009) offers Andrzejewski’s (1995) framework as a way for teacher education faculty to link “macrolevel systems of oppression with local, everyday inequalities, and connect diverse forms of oppression, including racism, sexism, heterosexism, and classism” (p. 619). Specifically, Andrzejewski “emphasizes identifying and acting on local issues, while situating those within largues issues that require organizing in order to change” (p. 619).

Furthermore, this research supports the call to provide quality field experiences in a variety of contexts, particularly those that are different from the K-12 experiences of the teacher candidates (McDonald & Zeichner, 2009). For example, in the open response questions, some candidates described the influence their practicum experiences in schools
that were different from their own K-12 schooling experiences as major factors that influenced their beliefs about teaching for social justice. As discussed in greater detail in Chapter 3, the Boston College teacher education program requires that undergraduate teacher candidates participate in at least three pre-practica, as well as a semester long full-practicum, or student teaching, experience. Additionally, McDonald and Zeichner (2009) recommend “community-based field experiences that focus on helping student teachers learn about the funds of knowledge and structures and social networks that exist in the communities where their [students] live” (p. 604).

This dissertation also raises questions about the role of teacher education in supporting teachers’ development once they are in the classroom. Learning to teach for social justice is an ongoing process that continues through the professional lifespan (Cochran-Smith, 2008, 2010; Darling-Hammond, French, & Garcia-Lopez, 2002). As demonstrated by the findings in this study, at the end of the teacher preparation program, candidates varied greatly in terms of their beliefs about teaching for social justice. Accordingly, as they navigate environments which may or may not support the overarching social justice mission of the teacher education program, it is important to consider the role of social justice oriented teacher education programs in supporting the continued development of their alumni once they are in the classroom.

**Concluding thoughts**

Griffiths (1998) argues, “the purpose of research on and for social justice is to get improvement in social justice in and from education” (p. 102). This study attempted to examine candidates’ beliefs about teaching for social justice at the beginning and end of
the undergraduate experience, with the goal of identifying factors within the teacher education program that are related to the change and development of candidates’ beliefs about teaching for social justice. In other words, this dissertation sought to identify whether and how the Boston College teacher education program empowered its undergraduate candidates to become agents of change. Given the pressing and complex challenges facing society today, teacher education programs can be a site for change that empower teacher candidates to enhance the learning and life chances of all students by challenging school and societal structures that perpetuate inequity. As Maxine Greene (1978) argues,

> The concern of teacher educators must remain normative, critical, and ever political. Neither teacher colleges nor the schools can change the social order. Neither colleges nor schools can legislate democracy. But something can be done to empower teachers to reflect upon their own life situations, to speak out in their own ways about the lacks that must be repaired; the possibilities to be acted upon in the name of what they deem to be decent, human, and just (p. 71).
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## Appendix A

### Literature Review: Chart of Empirical Literature Reviewed

<table>
<thead>
<tr>
<th>Authors (Date)</th>
<th>Questions/Purpose</th>
<th>Participants</th>
<th>Data Sources</th>
<th>Major Findings</th>
</tr>
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<tbody>
<tr>
<td>Adams, Bondy &amp; Kuhel (2005)</td>
<td>How do preservice teachers at different points in a teacher education program reflect on an community-based field experience? Why do preservice teachers respond to the experience differently?</td>
<td>6 (juniors) students from Group A (those who just finished BF program); 7 (seniors) students one year removed from BF program from Group B; 6 students from Group C (Master's) who were two years removed from BC program</td>
<td>Semi-structured 45-60 minute interviews,</td>
<td>Preservice teachers responded to the experience in a variety of ways characterized as: resistance; heightened awareness; conscious openness; knowing children as learners; cultural responsivity; insights into oppression; and passion and commitment.</td>
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<td>Athanases &amp; deOliviera (2007)</td>
<td>How did a credential program prepare teachers to advocate for equity in schools?                                                                                                                                                                                                 38 focus group participants, selected to reflect graduates in terms of grade levels and subject areas, race/ethnicity, and teaching context, taught elementary and middle/high school, some in Bilingual or English language development contests.</td>
<td>Five focus groups of 5–10 members convened for three hours to reflect on conceptions of advocating for equity, ways the program did and did not prepare them for this, and ways schools supported and impeded efforts, constant comparative method</td>
<td>Themes: convictions of equity; confrontation; risk. Many participants noted that the credentialing program shaped and deepened their convictions about equity.</td>
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<tr>
<td>Study</td>
<td>Research Question</td>
<td>Participants</td>
<td>Data Collection Methods</td>
<td>Findings</td>
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<td>Athanases &amp; Larrabee (2003)</td>
<td>How do education students respond to instruction regarding LG issues in schools?</td>
<td>Two instructors (one White male, openly gay; one White Jewish woman, married to a Latino), a guest presenter (White, openly gay science teacher), and 97 students enrolled in about equal numbers across the three classes.</td>
<td>Students' written reflections to instruction on LG-identified youth, anonymous course evaluations, interviews with both course instructors</td>
<td>Four themes emerged: value on developing knowledge about LG people; beginning to wear mantle of advocate for LG youth; questions, resistance, and reconciliation related to LG issues; stances toward LG educators.</td>
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<td>Au &amp; Blake (2003)</td>
<td>This study looks at the influence of cultural identity—including ethnicity, social class and community membership—on the perspectives and learning of preservice teachers</td>
<td>3 participants chosen from a cohort of 28 preservice students.</td>
<td>Structured interviews upon entering and at graduation, written assignments from three courses</td>
<td>Four common themes: value of literacy, teaching of reading and writing, principles of instruction, a safe class environment. For two participants, theme of Hawaiian culture and social justice.</td>
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<td>Bennett (2002)</td>
<td>This study examines efforts of Project TEAM (Transformative, Educational, Achievement Model) initiative designed to increase the number of underrepresented minorities at Indiana university in teacher education</td>
<td>Students from 5 cohorts of Project TEAM including 16 men and 52 women</td>
<td>Questionnaire comprised of ethnic identity, interracial contact experience, multiracial knowledge scales administrated first and last day of class, follow-up individual interviews, selected course assignments, meta-comment papers, classroom observations of honors seminar, student transcripts</td>
<td>Four common themes emerged to explain Project TEAM experience: Creating community on a predominantly White campus; ethnic identity; social justice; and becoming a teacher.</td>
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<tr>
<td>Study</td>
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<td>Participants</td>
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<td>Bennett, Cole &amp; Johnson (2000)</td>
<td>What is the nature of students' experiences in project TEAM?</td>
<td>Participants from 3 cohorts, including 7 men and 38 women</td>
<td>Questionnaire comprised of ethnic identity, interracial contact experience, multiracial knowledge scales administrated first and last day of class, follow-up individual interviews, selected course assignments, metacomment papers, classroom observations of honors seminar, student transcripts</td>
<td>Three themes emerged: sense of community with minority student peers; developing a stronger sense of ethnic identity; working for social justice through multicultural education.</td>
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<td>Bradley, Golner &amp; Hanson (2007)</td>
<td>This study examines the experiences of music education graduate students and their instructor during a 15-week seminar entitled &quot;Race issues in music education&quot;.</td>
<td>3 (two White students, 1 White professor)</td>
<td>Formatted dialogue from reflective journals</td>
<td>Teachers &quot;transgressed&quot;, rethinking their positions as White teachers, and how racial equality might become a reality in their teaching.</td>
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<td>Burant &amp; Kirby (2002)</td>
<td>What is the nature of the experiences of preservice teachers in an &quot;educative practicum&quot; that pushes the boundaries of early field experience beyond classrooms into an urban school and surrounding community? What sense did preservice teachers make of their experiences in the school and community?</td>
<td>26 preservice teachers</td>
<td>Field notes, weekly reflection journals, individual interviews with each participant, 3 focus groups with six participants each near end of semester, follow-up interviews with selected participants.</td>
<td>Categories emerged from preservice teachers' experience: deepening multicultural, eye opening and transformational, masked multicultural, partially mis-educative, and escaping.</td>
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<td>Cherian (2007)</td>
<td>How did the mentorship experiences of teacher candidates shape their teaching and learning?</td>
<td>6 graduate student participants in a preservice teaching class, including 2 candidates with advanced degrees (PhD in biology, MA psychology), enrolled in a 1 year post bac program</td>
<td>3 focus group sessions, reflection journals, and 6 individual semi-structured interviews. Relationships with mentors and importance of a caring associate; all participants consistently provided technical guidance, procedural guidance related to school routines and policies, and encouragement during their teaching to philosophical matters; practices-finding openings for curricular planning and reflection to emphasis on observation, conversation, co-planning and co-teaching, observing in multiple teachers' classrooms; opportunities to teach from a constructivist and social justice perspective, however too much pressure to stick to standardized curriculum.</td>
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<td>Cho &amp; DeCastro-Ambrosetti (2007)</td>
<td>This study explored the effect a multicultural education course on preservice teachers' attitudes about the experiences, needs, and resources of culturally and linguistically diverse student populations, as well as the value that preservice teachers place on multicultural education</td>
<td>18 preservice teachers who participated in a multicultural education course</td>
<td>Participants completed a pre-survey at the beginning of the course and a post-survey at then end of the course, consisting of 17 demographic questions and 25 Likert scale. On the post-surveys additional open-ended questions were asked. Findings show that preservice teachers' attitudes were positively influenced after having taken the multicultural education course, including increased awareness, understanding and appreciate of other cultures. However preservice teachers noted that they still felt ill-equipped to teach culturally and linguistically diverse students.</td>
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<td>Author(s)</td>
<td>What concerns are expressed by pre-service teachers as they explore social just teaching and their role in enacting it? To what extent can both the components of critical pedagogy and Ignatian pedagogy both of which have fundamental connections to the goals of social justice, address those concerns?</td>
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<td>Chubbuck (2007)</td>
<td>15 teacher candidates Non-graded reflective journals, focus groups with 2-4 members at a time lasting 75-90 minutes in length The following three themes emerged: appropriate curricular content; pedagogy of socially just teaching; rationale for teaching for social justice grounded in faith and ethics</td>
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<td>Chubbuck &amp; Zembylas (2008)</td>
<td>How are emotions and teaching linked in Sara’s visions and practices for and about social justice? How does Sara struggle to navigate the ambivalent emotions of teaching for social justice? What are the implications of Sara's emotional struggles? How can analysis of emotions in socially just teaching practices contribute to a theory and praxis--in essence--a critical emotional praxis that is transformative for teachers and learners?</td>
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<td>1 25-year old, White novice high school teacher in her first and second years of teaching who had grown up in a racially and culturally homogenous small Midwestern community, she was prepared to teach in a teacher education program with a central tenet to prepare teachers to teach for social justice at a Jesuit university located in the heart of a Midwestern city, Observations for 8-minutes each day for the final 9-week semester, observations were recorded on audiotape. During the 9 weeks of observations, Sara was interviewed 6 times for 120-180 minutes. Interviews with the chair of the department and 10 students. Documents of students' work, Sara's planning and reflective journal. A 7th follow-up 180 minute interview during the following year as well as two more observations. Dedication to teaching for social justice as equitable access to high content, critical care, justice related issues, and relationships with students, emotionality a critical component in teaching for social justice.</td>
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<td>Cochran-Smith, Shakman, Jong, Terrell, Barnatt &amp; McQuillan (2009)</td>
<td>What are teacher candidates'/first-year teachers' understandings of what it means to teach for social justice, and how do these relate to classroom teaching? That is, what do teachers say about teaching for social justice? How do these understandings play out in practice? That is, what do teacher candidates/first year teachers actually do in classroom contexts? What are the implications of these findings for understanding the theme of social justice in preservice teacher education?</td>
<td>12 volunteer Master's level teacher candidates (5 males, 7 females, 9 White, 1 Hispanic American, 1 Asian American, 1 African American)</td>
<td>During preservice year, 6 structured interviews, five structured classroom observations, interviews with course instructors and supervisors, collection of candidates' work and program materials. During first year of teaching, three structure interviews, four structured classroom observations, interviews with principals and mentors. During both years, multiple full-class sets of pupils' work were collected.</td>
<td>The researchers identified 27 codes representing ideas about social justice in four categories: pupil learning, relationships and respect, teacher as activist, recognizing inequities. Teacher candidates/teachers consistently referred to learning as the bottom line of teaching, however seldom referred to critiques of larger structures and arrangements in schooling, more influence within the classroom.</td>
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<td>Damico &amp; Riddle (2004)</td>
<td>This study highlights &quot;critical moments&quot; in intern year and first year of teaching</td>
<td>Ruthie, intern teacher through first year of teaching</td>
<td>Interviews with Ruthie, observations during intern year and first year of teaching, analysis of lesson plans</td>
<td>Findings indicate that Ruthie shifted from answers to questions regarding teaching for social justice. Implications for teacher education include more support in preparing teachers to work from inquiry and social justice perspectives</td>
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<td>Authors</td>
<td>Study Description</td>
<td>Participants/Methods</td>
<td>Findings/Interpretation</td>
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<td>deFreitas (2008)</td>
<td>This study explores the complexities of preservice mathematics teacher resistance to social justice issues</td>
<td>12 preservice mathematics teachers participated in a course-based research projects.</td>
<td>Data included in class observations, post class reflections, written participant data from discourse analysis assignment and self study (auto-ethnography) narrative assignment. Self-study narrative pointed to several themes including importance of family support in facilitating success in mathematics education; sense that success in math correlates to socio-economic status; pervasive disjunction between 'real life' and an enacted identity within school mathematics; particular mathematics teachers held responsible for engagement, disengagement.</td>
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<td>Enterline, Cochran-Smith, Ludlow &amp; Mitescu (2008)</td>
<td>This study investigates the extent to which social justice-related beliefs and perspectives differ among teacher candidates upon entry to, exit from, and one year out of, a teacher preparation program with a stated social justice agenda.</td>
<td>Undergraduates who took the 2005 Exit survey (N=110), three cohorts who took the Entry survey (2005, 2006, 2007), four cohorts who completed the Exit surveys (2005, 2006, 2007, 2008), approximately 125 in each cohort. Comparison of two cohorts who took the Exit Survey (2005, 2006) and One Year Out Survey (2006, 2007)</td>
<td>Analysis of a twelve-item learning to teach for social justice beliefs (LTSJ-B) scale using the Rasch Rating Scale IRT model, anchored on the 2005 Exit survey item and category threshold estimates. The authors demonstrate that the scores of cohorts of exiting teacher candidates far exceeded the scores of entering candidates on the LTSJ-B scale. They also demonstrate that after one year of teaching, graduates of the program maintained these higher scores.</td>
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<td>Source</td>
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<td>Data Sources</td>
<td>Contradictions in Learning to Teach for Social Justice</td>
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<td>Flores (2007)</td>
<td>How does teacher education for social justice influence the new teachers’ identities and practice in urban schools? How does the school’s context influence teachers’ identity and practice? How does a situated view of learning and development inform efforts to develop educators able to teach for social justice?</td>
<td>Two first year teachers and two third year teachers.</td>
<td>Data sources include: field notes based on observation and interaction, researcher's reflective journal, teacher and student work samples, 3 formal 90-minute audio-taped interviews with each teacher; and audio-taped interviews with university faculty members, select school colleagues, principals, and ten students in each class.</td>
<td>Contradictions in learning to teach for social justice: (1) Images of practice and practitioners--images of teachers and teaching contrasted with realities (2) practice of individualization: student centered versus medical model (3) practice of assessment: high standards versus standardization; (4) transformation: tensions between newcomers and old-timers; (5) from peripheral to full participation.</td>
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<td>Gomez, Black &amp; Allen (2007)</td>
<td>How does this prospective teacher understand her identity as a White person? What relationship does she understand that this identity has to teaching students who are from many different cultural backgrounds? What kinds of dilemmas arise for a prospective teacher when she begins to understand who she is as a White person? How does she negotiate them? And what role does her teacher education program play in encouraging and supporting her negotiations?</td>
<td>Alison, White, middle class, English speaking, heterosexual, able bodied, and attends a university 40 miles or less from the small town in which she grew up. She is one of six participants in a large, longitudinal study of preservice secondary teachers' development</td>
<td>Data include interviews with Alison Smith in the four semesters of her teacher education program, and interviews with program faculty and staff who were Alison’s teachers.</td>
<td>The authors argue that teacher educators must find ways to (1) educate members of the current and likely future homogeneous U.S. teacher corps in programs of teacher education for their diversely populated classrooms, and (2) imagine mentoring and support programs that continue their knowledge and understandings following initial certification so that all children and youth are taught well.</td>
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<td>Graziano (2008)</td>
<td>This article explores how teacher educators and pre-service teachers can develop classroom practices that act on the theoretical principles of critical pedagogy and explores how knowledge is distributed within a critical classroom.</td>
<td>22 preservice teachers participated in the development of Teaching for Diversity and Social Justice, a required teacher education course</td>
<td>Field notes, data from pre-, post, and mid-semester surveys.</td>
<td>Findings indicate that while in the pre-survey there was uncertainty and ambivalence about the course structure and how to handle the power and responsibility of co-developing the course. As the semester progressed students moved from uncertainty to acceptance, however students kept the topics &quot;simple&quot; and &quot;superficial&quot;.</td>
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<td>Greenman &amp; Dieckmann (2004)</td>
<td>What about the nature of the course made it an opportunity for transformative experience? What is the importance of criticality and culture in transformative educational experiences?</td>
<td>7 former Masters level graduate students</td>
<td>Data were gathered through student-professor experiential (personal and dialogic) reconstruction, systemic review of course documents, including evaluations, student journals, course papers, and proposals, informal discussions, post-course former student interviews.</td>
<td>The following themes emerged: unique course structure and experience including informality and power sharing, 'awakenings and first steps', 'praxis',</td>
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<td>Source</td>
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<td>Research Methods</td>
<td>Key Themes</td>
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<td>Hyland &amp; Noffke (2007)</td>
<td>In what ways do the sound and community inquiry assignments influence preservice teachers' understanding of marginality? How do students see themselves in relation to the communities they investigate? How do students understand their role as teachers of diverse students after engaging in social and community inquiry assignments? In what ways might these assignments function to reify the marginality of certain groups? What lessons have we learned from these assignments?</td>
<td>120 preservice teachers in 4 sections of a social studies methods course at University of Illinois and University of Delaware</td>
<td>Students' written reflections on both social and community inquiry assignments, course evaluations from every student, observations of in-class presentations of assignments, written reflections and journals of both authors, and seven audio-taped focus conversations (4-6 self-selected students per focus group).</td>
<td>Key themes emerged: (a) seeing themselves in relationship to historically marginalized groups, (b) identifying structural inequality with regard to services and voice, (c) developing a sympathetic understanding about people from historically marginalized groups, and (d) identifying the relationships between the inquiry assignments and their future role as teachers.</td>
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<td>Johnson (2002)</td>
<td>How do White teachers learn to go beyond a &quot;color blind&quot; approach and &quot;see&quot; race? What experiences in childhood and adolescence shape these views? What is the influence on professional education? How does awareness of race influence personal views of classroom practice?</td>
<td>Six White female classroom teachers who teach in racially and culturally diverse schools in the Pacific Northwest participated in the study.</td>
<td>Autobiographical narratives constructed through four semi-structured interviews and a classroom visit.</td>
<td>Three themes emerged: role of relationships and the importance of personal experiences in the development of insiders' perspectives on race and racism; significance of working for social justice in interracial organizations; perceived marginalization, learning to empathize with marginalized racial groups through a sense of their own marginalization as children.</td>
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<td>Johnston- Parsons, Lee &amp; Thomas (2007)</td>
<td>Are teachers of color in teacher education programs oppressed by their minority positions in mostly White teacher education programs? What can students of color, from their subject positions, help us to understand about creating more culturally sensitive programs for future teachers?</td>
<td>Students across three cohorts, 7 students in Year 1; 6 students in Year 2; 11 students in Year 3</td>
<td>Self-study, tape recorded all conversations over 3 years, personal journals, video-taped some teaching, collected relevant writing that students did for their courses and capstone projects.</td>
<td>Themes: significant value in meeting separately, importance of building programmatic space for students of color and professors to talk with each other, open topics</td>
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<td>Jones &amp; Enriquez (2009)</td>
<td>In what ways does a graduate course focused on culture, critical literacy, and social justice impact two focal students across time and context? How is the impact regulated by each participant's habitus and their interactions within different fields? Under what conditions do the focal students use critical literacy practices and teach critical literacy practices to their elementary-aged students? How do these conditions reflect the interaction of habitus and field?</td>
<td>Two female participants: Rebekkah and Brooke.</td>
<td>Across four years, three primary sources of data from and about two participants informed the study: written documents (course assignments, midterm and end-of-term course reflections, peer feedback), interviews (interview 6 months after the course) and classroom observations (18 months after the course ended lasted from October - June).</td>
<td>Analyzed students' engagements with teacher education for social justice as a dynamic process bound up in habitus, field, and practice, and the inherent workings of power in each can provide teacher educators with tools to re-see their students. Students are not part of a collective group but rather complex beings negotiating various spheres of their past, present, and future lives and trying to understand how or whether to integrate an intellectual and moral stance.</td>
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<td>Kroll (2004)</td>
<td>How do students’ ideas of teaching, learning and knowledge develop within the context of their experience in this course? How do they come to understand constructivism? What are their definitions of constructivism? What is the course of the development of this understanding?</td>
<td>Instructor and 20 graduate students attending a two year Masters and credential program in early childhood education and teacher preparation</td>
<td>Each student showed growth and development in her ideas about her own learning and the learning of her students, however individual differences in the ways they made sense of the readings and discussions, as well as their conclusions about learning.</td>
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<td>LaBoskey (2006)</td>
<td>This study reported upon in this paper was to determine what graduates of a teacher education program designed to prepare teachers who will work toward goals of equity and social justice were encountering in their schools and how they felt they were doing with regard to these aims and why.</td>
<td>Eleven graduates of the elementary credential program in their second, fourth or fifth year of teaching at a variety of grade levels, focus on one graduate's narrative in response to interviews and questionnaires</td>
<td>Participants constructed images of quality education consistent with their teacher preparation program's goals of equity and social justice as well as holding high expectations for all learners, responsive to individual, cultural and linguistic strengths and needs.</td>
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<td>Lenski, Crumpler, Stallworth &amp; Crawford (2005)</td>
<td>How did the students situate themselves within these ethnographic papers, and how did the students situate the subjects of their observations?</td>
<td>34 preservice teachers who were engaged in a yearlong professional development program as their last year before teaching</td>
<td>Four themes emerged: how preservice teachers situated themselves as ethnographers; how they situated themselves in the site; how they situated themselves by the purpose of their work; and how they situated themselves within contested sites of influence.</td>
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This study examines how prospective teachers respond to the social difference they encounter in educational discourse and in the public schools. Three teacher candidates, 2 female, 1 male featured in this paper were selected from a larger body of data on 35 teacher candidates enrolled in a concurrent B.A./B.Ed. program at a Canadian university. Deep description of all three candidates provided. Two individual interviews, at least two observations in practicum placements, constant comparative method. Three "sign posts" emerged: prospective multicultural educators personally identify with inequality or social injustice; prospective multicultural educators value critical pedagogy and multicultural social reconstructionist education; prospective multicultural educators desire to learn more about educational inequality and its causes.

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<th>Levine-Rasky (2001)</th>
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<td>This study examines how prospective teachers respond to the social difference they encounter in educational discourse and in the public schools. Three teacher candidates, 2 female, 1 male featured in this paper were selected from a larger body of data on 35 teacher candidates enrolled in a concurrent B.A./B.Ed. program at a Canadian university. Deep description of all three candidates provided. Two individual interviews, at least two observations in practicum placements, constant comparative method. Three &quot;sign posts&quot; emerged: prospective multicultural educators personally identify with inequality or social injustice; prospective multicultural educators value critical pedagogy and multicultural social reconstructionist education; prospective multicultural educators desire to learn more about educational inequality and its causes.</td>
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<td>Lewis (2001)</td>
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<td>Lynn &amp; Smith-Maddox (2007)</td>
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<td>McDonald (2005)</td>
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<td>McQuillan, D’Souza, Schoepner, Miller, Gleeson, Mitchell, Enterline &amp; Cochran-Smith (2009)</td>
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<td>McQuillan, Jong, D’Souza, Mitchell, Lam, Shakman, Gleeson, Enterline, Power &amp; Cochran-Smith (2009)</td>
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survey data collected from the larger cohort of teacher candidates, the interrelationship among three program goals were examined.

<p>| Moore (2008) | How do elementary preservice teachers' conceptions of &quot;agents of change&quot; shape their identities and agencies as science teachers? What is an agent of change in science? How do elementary preservice teachers' perceptions as change agents frame their understanding of teaching science for social justice in urban elementary classrooms? What concerns or fears do they have as agents in teaching science in urban elementary classrooms? | 23 preservice teachers enrolled in a 16-week science methods course with varying degree of teaching experience, most not in student teaching practica at the time. | Book club reflections, initial and final surveys, demographic data, plans to teach in urban settings, semi-structured interviews with 5 preservice teachers at the end of the course, researcher journal. | Five major themes emerged: institutionally granted power; change agent with limited agency; change agent as a science teacher; not yet an agent of change; change agent beyond the classroom level. |</p>
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<th>Study</th>
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<th>Findings/Implications</th>
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| Pugach, Longwell-Grice, Ford & Surma (2008) | 15 preservice students preparing to teach pupils aged 6-13 | **What representations of equity and diversity are portrayed in these portfolios, and how similar or different are they across portfolios? What level of consistency exists between representations portrayed by artifacts preservice teachers selected to represent their work and the required rationales for each artifact that justify its inclusion in the portfolio?**  
All 15 of the portfolios demonstrated general familiarity with the language related to urban teaching, equity, and diversity, a basic level of awareness and importance of considering the backgrounds of children and families, and communities in their teaching decisions, as well as enthusiasm for their work and the profession of teaching. |
| Rios & Montercinos (1999)     | 28 ethnically diverse undergradute preservice teachers | **This study examines the extent to which ethnically diverse preservice teachers understood multicultural education to entail various types of specific practice at the beginning of their teacher preparation program, examines which aspects of multicultural education candidates endorse and reject**  
Participants were given a questionnaire designed to assess preservice teachers' perspectives on diverse approaches to multicultural education completed at the end of the first class.  
Twenty of the 28 preservice teachers endorsed teaching for social justice, and varied in terms of their approaches to multicultural education according to Sleeter and Grant's (1993) approaches to multicultural education. |
| Romo & Chavez (2006)         | 48 undergraduate and graduate students | **How are future teacher candidates, who are monocultural, effectively prepared to teach in a border context, and what are the important characteristics of border pedagogy?**  
Data were gathered from integrative essays that participants written at the end of the course.  
The data showed that students were underprepared to deal with the complexities of border regions and to function as effective teachers in those diverse areas. For many preservice teachers, this was their first exposure to multicultural professional development. |
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<th>Author(s)</th>
<th>Research Question</th>
<th>Participants</th>
<th>Data Sources</th>
<th>Findings</th>
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<td>Rosaen (2003)</td>
<td>What kinds of experiences engage teacher education students in deep exploration of what is means to build inclusive learning communities? What specifically, did these students learn from using poetry as a site of engagement?</td>
<td>25 students enrolled in the literacy methods course</td>
<td>Copies of all regular student work from the course (approximately 20 documents per student), detailed lesson plans of the course, notes about interactions and discussions that occurred during class time.</td>
<td>From examination of course materials, the poetry assignment was viewed as a site for learning in the course.</td>
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<td>Shakman (2009)</td>
<td>What is the experience of learning to teach for teacher candidates/graduates who are prepared in a program with a stated social justice agenda?</td>
<td>Two master's level teacher candidates/graduates enrolled in the same teacher education program with a stated social justice agenda</td>
<td>Data included extensive interviews and observations, teacher candidates' coursework, the assignments the teachers created, and their students work in response to these assignments. In addition, interviews were conducted with teacher education faculty, as well as with cooperating teachers, mentors, supervisors, and principals.</td>
<td>Learning to teach in a program with a stated social justice agenda was a complex process of negotiating several different and, at times, competing discourses of social justice. These discourses represented a range of ideas, interpretations, and practices that the teachers had to investigate and adapt as they developed their own authentic perspective.</td>
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<td>Thomas &amp; Vanderhaar (2008)</td>
<td>To what extent is multicultural education part of the teacher education program? How do candidates react to the multicultural components of their teacher education program?</td>
<td>Five candidates from a cohort of 17 were purposefully selected by the program designers. Four women, one man were selected because they represented a range with respect to performance in coursework (i.e., above average, average, and marginal).</td>
<td>Multiple data sources were used for this study including the multicultural education program curricula distributed prior to the onset of the program; self-reported assessment experiences that resulted in work products in courses and field experiences; observed interactions between and among candidates and their professors; curriculum and assessment artifacts;</td>
<td>Findings indicate that although multicultural education was a stated goal, the focus on it throughout the program was inadequate, including a lack of explicitness.</td>
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<td>Wiggins, Folio &amp; Eberly (2007)</td>
<td>Can White, upper-class females be assisted in developing the dispositions needed to successfully teach in culturally diverse settings?</td>
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<td>62 preservice of substitute teachers, including 47 preservice teachers at the midpoint of their elementary education degree (avg. 23 years old), divided into two groups, 15 substitute teachers for comparison</td>
<td>34-item Likert-scale pre-, and post-questionnaires administered to preservice teachers at the beginning and end of their immersion experience, substitute teachers took the questionnaire only ones.</td>
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<td>The Frost Immersion program made &quot;a difference&quot; for the students. Findings support the idea that a targeted field placement, support from peers and teachers, and meaningful coursework.</td>
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Appendix B

Boston College Evidence Team Conceptual Framework and Portfolio of Studies

Conceptual Framework for Assessing Teacher Education*

*M. Cochran-Smith and the Boston College Evidence Team, February 2004

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Evidence Portfolio

Surveys and Tracking
- Entry Exit
- One Year-Out
- Two Year-Out
- Three Year-Out

Retention Prediction Study

Social Justice
- Survey Scale
- Vignettes
- Inquiry Rubric
- Case Studies
- Teacher Observations

Cross-Sectional/Value-Added Assessment
- Teacher Characteristics
- Pupil Test Scores

Comparison Study
- Observations
- Pupil Assessments
- Program Comparisons

Preservice Performance Assessment (PPA+)
- Teacher Candidate Classroom Performance with Evidence

Inquiry
- Projects
- Rubrics
- Content Analysis

Qualitative Case Studies
- Interviews
- Observations
- Pupil Work
- Coursework

Qualitative Cross Case Study of Retention

Boston College Evidence Team Portfolio of Studies
Appendix C

BC Teachers for a New Era (TNE)

Entry Survey

Fall 2005

At Boston College, we are very interested in preparing excellent teachers who are committed to enhancing the learning and life opportunities of the students they teach. The purpose of this survey is to obtain your views regarding a variety of aspects of your expectations, goals, and perceptions of the teacher preparation program at Boston College. We are also interested in your attitudes and opinions on a number of related topics. We hope to use your input to improve the teacher education program at Boston College. We greatly appreciate your taking the time to do this. We will not report any individual responses to this survey or any other information about you. We are asking you to provide your Eagle ID number so that we can obtain other information already provided by you elsewhere; this will shorten the number of questions we have to ask you on this form. You should feel free to skip any questions posed here that you prefer not to answer.

What is your Eagle ID#?: ____________________________

Below are some reasons that might have influenced you to come to Boston College. Using the scale A=Essential, B= Very Important, C= Not Very Important, D= Not important at all, rate how important each of the following was in making your decision to attend BC.

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<th>Reason</th>
<th>Essential</th>
<th>Very Important</th>
<th>Not Very Important</th>
<th>Not important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. encouragement by a person important to me.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>2. a family member’s affiliation with BC.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>3. the size of BC.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>4. BC’s academic reputation.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>5. BC’s reputation for its social activities.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>6. the Lynch School’s degree program/majors.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>7. the Jesuit Catholic affiliation of Boston College.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>---</td>
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<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>8. the Lynch School’s social justice mission.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>9. the financial aid package offered to me.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>10. the Lynch School’s rankings in national magazines.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>11. the campus tour of BC.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>12. the Lynch School’s Open Houses.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>13. the potential to get a good job.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>14. the reputation of the Lynch School’s faculty.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>15. the reputation of the BC athletic programs.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>16. the opportunity to participate in BC athletics.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>17. the proximity of BC to the city without being right in the city.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

18. Was Boston College your: (Mark one)

A. first or only choice?
B. second choice?
C. third choice?
D. other choice?

19. Is any member of your family a teacher?

A. Yes
B. No

20. Is any member of your family in the education field but not a teacher?

    A. Yes
    B. No
21. Have you worked with children or adolescents in any of the following areas?

<table>
<thead>
<tr>
<th>Area</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tutoring</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b. Camp Counselor</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c. Community service</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>d. Parenting</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>e. Babysitting</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>f. Daycare center</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>g. Teaching</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>h. Substitute teaching</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>i. Teacher’s aid</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>j. Sibling care</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>k. Religious Groups (e.g. Sunday school, Youth groups, Hebrew School, CCD)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>l. Other (Please Specify) __________________</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

22. Have you had any experience working with diverse population (i.e. cultural, racial, language background, ability, disability, socioeconomic backgrounds) in any of the following areas?

<table>
<thead>
<tr>
<th>Area</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tutoring</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b. Camp Counselor</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c. Community service</td>
<td>1</td>
<td>2</td>
</tr>
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<td>2</td>
</tr>
<tr>
<td>e. Babysitting</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>f. Daycare center</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>g. Teaching</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>h. Substitute teaching</td>
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</tr>
<tr>
<td>i. Teacher’s aid</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>j. Sibling care</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
k. Religious Groups (e.g. Sunday school, Youth groups, Hebrew School, CCD)  

l. Other (Please Specify) __________________________  

Using the following scale A=Essential, B= Very Important, C= Not Very Important, D= Not important at all, rate each of the following regarding your goals for your teacher education program. My goal is to…

<table>
<thead>
<tr>
<th>Goal</th>
<th>Essential</th>
<th>Very Important</th>
<th>Not Very Important</th>
<th>Not important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. learn to help others who are having difficulty learning.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>24. develop a personal philosophy of education.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>25. participate in a community service or service learning program.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>26. learn how to promote understanding across diverse groups.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>27. become knowledgeable about social issues that affect teaching and schooling.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>28. learn to prepare students to live in a democracy.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>29. become knowledgeable about the political issues that affect teaching and schooling.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>30. improve my understanding of other countries and cultures.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>31. integrate my spiritual identity into my work as a teacher.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>32. become a community or school leader.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>33. help children reach their highest potential.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>34. learn how to improve student achievement.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

Using the following scale, A=Essential, B= Very Important, C= Not Very Important, D= Not important at all, please rate the following statements in terms of their importance to you to be a successful teacher. For me a “successful” teacher…

<table>
<thead>
<tr>
<th>Statement</th>
<th>Essential</th>
<th>Very Important</th>
<th>Not Very Important</th>
<th>Not important at all</th>
</tr>
</thead>
</table>

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35. is liked and respected by students. | A | B | C | D
---|---|---|---|---
36. teaches so that all students learn. | A | B | C | D
37. helps students gain a sense of self-confidence and self-worth in the classroom. | A | B | C | D
38. maintains a quiet and orderly classroom. | A | B | C | D
39. promotes an environment where students understand and respect one another. | A | B | C | D
40. helps students to develop competence as problem solvers and/or critical thinkers. | A | B | C | D
41. promotes academic development and achievement. | A | B | C | D
42. promotes students’ social and emotional development. | A | B | C | D
43. prepares students to participate in a civic society. | A | B | C | D
44. motivates students to become life long learners. | A | B | C | D

Different teachers have described different teaching philosophies to researchers. For each of the following pairs of statements, mark the number that best shows where your own beliefs are in relationship to the pair of statements. Please mark only one number for each pair.

45. “I mainly see my role as a facilitator. I try to provide opportunities and resources for my students to discover or construct concepts for themselves.”
   “That’s all nice, but students really won’t learn the subject unless you go over the material in a structured way. It’s my job to explain, to show students how to do the work, and to assign specific practice.”
   1 | 2 | 3 | 4 | 5

46. “The most important part of instruction is the content of the curriculum. That content is the community’s judgment about what children need to know and be able to do.”
   “The most important part of instruction is that it encourages ‘sense-making’ or thinking among students. Content is secondary.”
   1 | 2 | 3 | 4 | 5

47. “It is useful for students to become familiar with many different ideas and skills even if their understanding, for now, is limited. Later, in college, perhaps, they will learn these things in more detail.”
   “It is better for students to master a few complex ideas and skills well, and to learn what deep understanding is all about, even if the breadth of their knowledge is limited until they are older.”
   1 | 2 | 3 | 4 | 5

368
48. “It is critical for students to become interested in doing academic work – interest and effort are more important than the particular subject-matter they are working on.”

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

49. “While student motivation is certainly useful, it should not drive what students study. It is more important that students learn the history, science, math, and language skills in their textbooks.”

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

Using the following scale, A=Essential, B= Very Important, C= Not Very Important, D= Not important at all, Please tell us what you expect from the BC faculty. I expect the faculty to…

<table>
<thead>
<tr>
<th></th>
<th>Essential</th>
<th>Very Important</th>
<th>Not Very Important</th>
<th>Not important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>50. be available outside of class for conferences, meetings, and/or advising sessions.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>51. make careful judgments about the quality of work that I complete.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>52. enable me to evaluate and reflect upon my practice to improve instruction.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>53. assess my progress in relation to professional standards for good teaching.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>54. assess my attainment of specific, well-defined skills, dispositions, and understandings associated with good teaching.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>55. teach in ways similar to the practices they advocate.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>56. to have exposure to the realities of contemporary schools and youth.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>57. use “real-life” teaching strategies such as case studies, simulations, and video.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>58. structure their courses around real problems of teaching practice.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>59. spend time helping me achieve satisfactory progress.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

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If you were to enter the classroom as a teacher today, how confident are you that you could perform the following tasks? Rate the following using the scale, A= Completely Confident, B= Very Confident, C= Somewhat Confident, D= Not at all confident, or E= I do not know what this means. As a teacher, I would be able to…

<table>
<thead>
<tr>
<th>Task</th>
<th>Completely Confident</th>
<th>Very Confident</th>
<th>Somewhat Confident</th>
<th>Not at all Confident</th>
<th>I do not know this means</th>
</tr>
</thead>
<tbody>
<tr>
<td>60. handle uncertainty by posing questions and seeking the best solution to problems based on evidence.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>61. design and execute classroom research.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>62. know ways to diversify lessons to meet the needs of individual students who have special education needs.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>63. seek and use feedback to improve instruction.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>64. apply recent research in education.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>65. make decisions about teaching based on classroom evidence.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>66. accommodate individual differences by adapting curriculum and instruction.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>67. plan stimulating lessons.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>68. motivate students to participate in academic tasks.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>69. teach problem solving, conceptual understanding, and other aspects of higher-order thinking.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>70. use educational technology as a learning tool.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>71. know what process to follow if I believe a student in my class has a disability and no one has tried to identify it before.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>72. create learning experiences that make the central concepts of the subject matter meaningful for students.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
</tbody>
</table>
73. make teaching decisions based on the results of pupil assessments.   | A | B | C | D | E  
74. teach in a high-stakes testing environment. | A | B | C | D | E  
75. interpret and use standardized test results. | A | B | C | D | E  

Using the following scale, A=Essential, B=Important, C=Not Very Important, D= Not important at all, E=Unknown, how important is it for you to learn the following in your teacher preparation program? It is important for me to learn about...

<table>
<thead>
<tr>
<th></th>
<th>Essential</th>
<th>Important</th>
<th>Not Very Important</th>
<th>Not Important at all</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>76. maintaining school safety.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>77. encouraging parental involvement in schools.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>78. managing the classroom.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>79. integrating technology in the classroom.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>80. mastering grade level/subject matter areas.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>81. addressing diversity in the classroom.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>82. developing curriculum.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>83. assessing and monitoring students’ work.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>84. using data to support decisions about school improvement.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>85. creating standards-based instruction.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
</tbody>
</table>

Using the scale A=Strongly Agree, B=Agree, C= Uncertain, D=Disagree, E=Strongly Disagree, respond to the following statements regarding your beliefs about elementary and secondary teaching.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>86. An important part of learning to be a teacher is examining one’s own attitudes and beliefs about race, class, gender,</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
</tbody>
</table>
disabilities, and sexual orientation.

87. Issues related to racism and inequity should be openly discussed in the classroom.

88. For the most part, covering multicultural topics is only relevant to certain subject areas, such as social studies and literature.

89. Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.

90. The most important goal in working with immigrant children and English language learners is that they assimilate into American society.

91. It’s reasonable for teachers to have lower classroom expectations for students who don’t speak English as their first language.

92. Part of the responsibilities of the teacher is to challenge school arrangements that maintain societal inequities.

93. Teachers should teach students to think critically about government policies and actions.

94. Economically disadvantaged students have more to gain in schools because they bring less into the classroom.

95. Although teachers have to appreciate diversity, it’s not their job to change society.

96. Whether students succeed in school depends primarily on how hard they work.

97. Realistically, the job of a teacher is to prepare students for the lives they are likely to lead.

<table>
<thead>
<tr>
<th>87.</th>
<th>88.</th>
<th>89.</th>
<th>90.</th>
<th>91.</th>
<th>92.</th>
<th>93.</th>
<th>94.</th>
<th>95.</th>
<th>96.</th>
<th>97.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
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<td>E</td>
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<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>A</td>
</tr>
</tbody>
</table>

If you are a **GRADUATE** student, please **SKIP** questions 98-100 and **PROCEED** to question 101.

98. What is your Lynch School intended major?

1. Teacher Education

2. Human Development

3. Other __________________________
4. Not Sure

If you did not answer “Teacher Education” for Question 98, please **PROCEED** to question 106.

99. If you selected Teacher Education, what is your intended Teacher Education Program?
   1. Elementary
   2. Early Childhood
   3. Secondary (specify subject)__________________________

100. What is your intended undergraduate second major other than teacher education?
     __________________________________________________
     __________________________________________________
     __________________________________________________
     __________________________________________________

**PROCEED** to Question 103.

101. What is your intended Teacher Education Program?
   1. Elementary
   2. Early Childhood
   3. Secondary (specify subject)__________________________
   4. Reading and Literacy
   5. Moderate Special Needs
   6. Severe Special Needs
   7. Low Incidence

102. What was your undergraduate major?

In what setting would you like to do your student teaching? (select one in each row for #103--105)

103.  1. Public  2. Private (independent)  3. Private (Catholic)  4. Other
104.  1. All male  2. All female  3. Coeducational
105.  1. Suburban  2. Urban  3. Other
106. What degree will you earn from Boston College? (circle one)

1. BA
2. M.A.T.
3. M.S.T.
4. M.Ed.

107. If you already have classroom teaching experience, please specify.

1. Early Childhood Education (Pre-Kindergarten- Grade 2)
2. Elementary Education (Grade 1-6)
3. Middle School Education (Grade 6-8), please specify subject area ________________________________
4. Secondary (Grade 9-12), please specify subject area ________________________________

108. Which of the following best characterizes your plans at this time?

1. I will become a teacher.
2. I will stay at the Lynch school, but I may or may not become a teacher.
3. I will transfer out of the Lynch School.

109. What have been your major reasons for preparing to teach?

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

110. How many years do you think you will teach during your career?

1. 0 years
2. 1-5 years
3. 6-10 years
4. 11-15 years
5. 16-20 years
6. 21+ years

111. What is your rationale for your previous answer? Why did you select the number of years that you did? Please answer even if you chose 0 years.

____________________________________________________________________________________
____________________________________________________________________________________
Appendix D
Teacher Education Survey:
2009 Exit Survey

The purpose of this survey is to obtain your views regarding a variety of aspects of the teacher preparation program at Boston College. We are also interested in your attitudes and opinions on a number of related topics. We hope to use your input to improve the teacher education program at Boston College. We are asking you to provide a Tracking ID number so that we can obtain other information from your file; this will reduce the number of questions we have to ask you on this form. We will not report any individual responses to this survey or any other information about you. You should feel free to skip any questions posed here that you prefer not to answer.

Using the scale Excellent, Good, Fair, and Poor, rate how your teacher education program prepared you to do the following.

<table>
<thead>
<tr>
<th>Please completely fill-in the bubbles</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>My teacher education program prepared me to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. reflect on and evaluate my theories of teaching.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2. handle uncertainty by posing questions and seeking the best solution to problems based on evidence.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>3. design and execute classroom research .</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>4. use inquiry methods to create an effective learning environment.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>5. know ways to diversify lessons to meet the needs of individual students who have disabilities.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>6. seek and use feedback to improve instruction.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>7. reflect on and improve my teaching performance.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>8. use classroom research and inquiry strategies.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>9. apply recent research in education.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>10. make decisions about teaching based on classroom evidence.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>11. use the state's curriculum frameworks and performance standards to plan instruction.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>12. read and understand Individual Education Plans (IEP) and provide appropriate accommodations for individual students in my classroom.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Using the scale Excellent, Good, Fair, and Poor, rate how your teacher education program prepared you to do the following:

<table>
<thead>
<tr>
<th>My teacher education program prepared me to:</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. read and understand 504 plans and provide appropriate accommodations for individual students in my classroom.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>14. accommodate individual differences by adapting curriculum and instruction.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>15. plan stimulating lessons.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>16. motivate students to participate in academic tasks.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>17. teach content knowledge and skills.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>18. teach problem solving, conceptual understanding, and other aspects of higher-order thinking.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>19. use educational technology as a learning tool.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>20. use classroom management techniques/procedures.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>21. know what process to follow if I believe a student in my class has a disability and no one has tried to identify it before.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>22. create learning experiences that make the central concepts of the subject matter meaningful for students.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>23. make teaching decisions based on the results of pupil assessments.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>24. teach in a high-stakes testing environment.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>25. interpret and use standardized test results.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Using the scale Excellent, Good, Fair, and Poor, how would you rate the overall effectiveness of the following:

<table>
<thead>
<tr>
<th>My experience</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>26. your pre-practicum experience(s)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>27. your full practicum experience</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>28. feedback from your cooperating teacher</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>29. feedback from clinical faculty supervisor</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>30. the advice from your academic advisor</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>31. the advice from your A&amp;S advisor</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>32. your inquiry seminar</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>33. professional advisement on licensure and certification</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**Using the scale Excellent, Good, Fair, and Poor, rate the following teacher preparation program resources in terms of their usefulness in preparing you for the classroom:**

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>34. practicum syllabus</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>35. Pre-Service Performance Assessment-PLUS (PPA+)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>36. Evidence Binder linked to the PPA+</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>37. courses taken in the school of education teacher preparation program</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>38. courses taken in content areas (Arts &amp; Sciences)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**Using the scale Excellent, Good, Fair, and Poor, rate how your teacher education program prepared you to teach students:**

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>39. with different ability levels in the same class</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>40. from different socio-economic backgrounds</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>41. from diverse racial/ethnic/cultural backgrounds</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>42. in an urban school system</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>43. with different linguistic backgrounds</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>44. with different sexual orientations</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>45. with special needs</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**Using the scale Excellent, Good, Fair, and Poor, rate your knowledge and understanding of:**

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>46. multi-cultural issues and perspectives</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>47. social and political roles of schools in American society</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>48. legal and ethical responsibilities of teachers</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Using the scale Strongly Agree, Agree, Uncertain, Disagree, and Strongly Disagree, respond to the following statements regarding your beliefs about teaching.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>49. An important part of learning to be a teacher is examining one's own attitudes and beliefs about race, class, gender, disabilities, and sexual orientation</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>50. Issues related to racism and inequity should be openly discussed in the classroom.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>51. For the most part, covering multicultural topics is only relevant to certain subjects areas, such as social studies and literature.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>52. Good teaching incorporates diverse cultures and experiences into classroom lessons and discussions.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>53. The most important goal in working with immigrant children and English language learners is that they assimilate into American society.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>54. It’s reasonable for teachers to have lower classroom expectations for students who don’t speak English as their first language.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>55. Part of the responsibilities of the teacher is to challenge school arrangements that maintain societal inequities.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>56. Teachers should teach students to think critically about government positions and actions.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>57. Economically disadvantaged students have more to gain in schools because they bring less into the classroom.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>58. Although teachers have to appreciate diversity, it’s <strong>NOT</strong> their job to change society.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>59. Whether students succeed in school depends primarily on how hard they work.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>60. Realistically, the job of a teacher is to prepare students for the lives they are likely to lead.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Rate the following using the scale Strongly Agree, Agree, Disagree, and Strongly Disagree.

<table>
<thead>
<tr>
<th>The Boston College Teacher Education faculty . .</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>61. knew very little about the realities of contemporary schools.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>62. were involved in the school(s) and with youth.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>63. structured their courses around real problems of teaching practice.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Boston College A&amp;S faculty . .</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>64. knew very little about the realities of contemporary schools.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>65. were involved in the school(s) and with youth.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>66. structured their courses around real problems of teaching practice.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Using the scale Excellent, Good, Fair, and Poor, rate how your teacher education program prepared you to do the following.

<table>
<thead>
<tr>
<th>My teacher education program prepared me to:</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>67. utilize an in depth knowledge base in the subject area of my certification.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>68. understand the concepts, principles, and reasoning methods of the subject areas I will teach (e.g. mathematics, science, history, English, etc.).</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>69. develop an understanding of reading and language development to advance literacy and writing in all students.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>70. use knowledge of writing processes to provide instruction and opportunities for writing across all content areas.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Using the scale Very Satisfied, Satisfied, Dissatisfied, and Very Dissatisfied, rate how satisfied you were with the following aspects of your teacher education program:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Very Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>71. class discussions</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>72. exchanges with peers</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>73. assigned readings</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>74. course assignments/projects</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>75. balance between theory and practice</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>76. coverage of current issues</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>77. professors’ methods of evaluating students</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>78. the academic advising you received</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

79. Looking back, would you still enroll in this teacher education program?

<table>
<thead>
<tr>
<th>Response</th>
<th>Definitely yes</th>
<th>Probably yes</th>
<th>Probably no</th>
<th>Definitely no</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

80. How do you rate your ability to make a significant difference in the learning of your students?

<table>
<thead>
<tr>
<th>Ability</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

81. In your opinion, rate how well your Teacher Education Program at Boston College prepared you to teach.

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

82. Would you recommend the BC teacher education program to other prospective teachers?

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Definitely yes</th>
<th>Probably yes</th>
<th>Probably no</th>
<th>Definitely no</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

83. What is your gender?

- Male
  - Female
84. What is your age? ______

85. What is your race/ethnicity? (Fill in all that apply)
   ○ African American
   ○ Asian
   ○ Black, Caribbean or West Indies
   ○ Latino, Hispanic, Puerto Rican
   ○ Native American
   ○ White (Caucasian)
   ○ Other (please specify)____________

86. What was your Teacher Education Program? (Fill in all that apply)
   ○ Elementary
   ○ Early Childhood
   ○ Secondary (specify subject)__________________________
   ○ Reading and Literacy
   ○ Moderate Special Needs
   ○ Severe Special Needs/Low Incidence
   ○ A&S _________________________

87. What was your minor?
   ○ A&S
   ○ LSOE Math Minor
   ○ Other________________________
   ○ None

88. What was your undergraduate major other than teacher education? If not applicable, please write NA.

89. Did you do your student teaching abroad?
   ○ Yes
   ○ No

90. In what setting did you do your student teaching?

<table>
<thead>
<tr>
<th>Public (independent)</th>
<th>Private (Catholic)</th>
<th>Private</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

91. What was the gender composition of the school you did your student teaching in?

<table>
<thead>
<tr>
<th>All male</th>
<th>All female</th>
<th>Coeducational</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
92. What was the location of school you did your student teaching in?

<table>
<thead>
<tr>
<th>Suburban</th>
<th>Urban</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

93. Did you do your student teaching in a multicultural setting?

☐ Yes
☐ No

94. What degree did you earn most recently from Boston College? (fill in one)

<table>
<thead>
<tr>
<th>BA/BS</th>
<th>M.A.T</th>
<th>M.S.T</th>
<th>M. Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

95. What are your major reasons for becoming a teacher?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

96. Do you plan to teach in the next two years?

☐ Yes
☐ No

97. How many years do you think you will teach during your career?

<table>
<thead>
<tr>
<th>0 years</th>
<th>1-5 years</th>
<th>6-10 years</th>
<th>11-15 years</th>
<th>16-20 years</th>
<th>21+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

98. What is your rationale for your previous answer? Why did you select the number of years that you did? Please answer even if you chose 0 years.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
99. Do you plan to apply now or have you applied for a teaching position in the fall?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

99a. If YES, where?

- Boston Public Schools ____________________________ school(s)
- Boston area ____________________________ city/town
- Other Massachusetts ____________________________ city/town
- Out of State ____________________________ state(s)
- International ____________________________ country

99b. If NO, why not?

- 5th year program at the Lynch School ____________________________ program
- Other master’s degree at BC ____________________________ program
- Master’s at another university ____________________________ institution
- Other job ____________________________

100. How can we stay in touch?

Email address you will use after graduation (Non-BC if available)

Non-BC Phone ____________________________ Cell Phone ____________________________

Best mailing address for use after graduation Permanent (family) mailing address

________________________________________

________________________________________

I give Fran Loftus permission to provide my name and contact information to prospective employers
Appendix E

Winsteps LTSJ-B command file anchored on 2005 Exit

; this is a WINSTEPS specification control file template.
; Save it with your own name, e.g., control.txt

; a semi-colon means a comment: remove semi-colons as needed.

&INST

TITLE = "Social Justice: Dissertation Anchoring"

; Input Data Format
NAME1 = 1 ; column of start of person information
NAMELEN = 11 ; maximum length of person information
ITEM1 = 12 ; column of first item-level response
NI = 12 ; number of items = test length
XWIDE = 1 ; number of columns per response
PERSON = Person ; Persons are called ...
ITEM = Item ; Items are called ...
DATA = ; data after control specifications

; For rescoring
; 0 1 2 3 4 5 6 7
;   1234567890123456789012345678901234567890123456789012345678901234567890
;GROUPS=0 ; specify that each item has its own rating scale (partial credit)
;REFER=AABBCC....

; Data Scoring
CODES = 12345 ; valid response codes
;IVALUEA= "01" ; for rescoring for item type A
;IVALUEB= "10" ; for rescoring for item type B
;IVALUEC= "1" ; for rescoring for item type C
; ; Codes in REFER with no IVALUE are not changed

CLFILE = * ; label the categories in Table 3
1 Weak ; 0 in the data means "Strongly Disagree"
5 Strong ; 4 in the data means "Strongly Agree"
 *

;NEWScore = "10" ; use to rescore all items
; KEY1 = ; key for MCQ items

; XWIDE = 2 ; for all codes 00 to 99
; CODES = "000102030405060708091011121314151617181920212223242526272829+
; +303132333435363738394041424344454647484950515253545556575859+
; +606162636465666768697071727374757677787980818283848586878889+
; +90919293949596979899"

384
; codes reversed, in case needed
; NEWSCORE= "99989796959493929190898887868584382818079787776757473727170+
;       +696867666564636261605958575655545352515049484746454443424140+
;       +393837363534333231302928272625242322212019181716151413121110+
;       +09080706050403020100"

; MISSCORE = -1 ; -1 = missing data treated as not administered

;User Scaling
UMEAN = 0 ; item mean - default is 0.00
USCALE = 1 ; measure units - default is 1.00
UDECIM = 2 ; reported decimal places - default is 2
MRANGE = 0 ; half-range on maps - default is 0 (auto-scaled)

1AFILE=*
1 -1.68
2  -0.53
3   0.13
4  -1.59
5   0.88
6   0.13
7   -0.45
8   -0.18
9   0.20
10  0.53
11  1.27
12  1.50
*

SAFILE=*
2  -1.34
3   -0.07
4   -0.47
5   1.88
*

&END

sj1
sj2
sj3
sj4
sj5
sj6
sj7
sj8
sj9
sj10
sj11
sj12

END LABELS