

Insights into Alternative Certification: Initial Findings From a National Study

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Background: *Alternative teacher certification has become an increasingly popular strategy for addressing both teacher quality and teacher shortages. However, there is little agreement about what constitutes alternative certification, and there is little known about the types of programs that prepare highly qualified teachers. The debate over alternative certification has fueled a variety of assumptions about participants and programs that are based on opinion or the limited research base.*

Focus of Study: *Our research describes in detail seven programs to understand who participates in these programs and what learning opportunities the programs provide. We test proponents' and opponents' assumptions about alternative certification against national data and data from the seven programs.*

Research Design: *We employed multiple data collection activities at both the program and participant levels. We conducted case studies of seven alternative certification programs, including multiple interviews with key personnel and document reviews. We surveyed program participants twice—once at the beginning of their participation in the program, and again at the end of their first year of teaching. We also observed a sample of participants teaching and interviewed them both at the beginning and end of their first year of teaching.*

Findings: *We find that both sides of the debate fail to capture the variation in participants' characteristics and their experience in the programs. Alternative certification program participants are a diverse group of individuals who defy generalization. In addition, we find a great deal of variation between and within alternative certification programs. In contrast to simplistic characterizations, we find teacher development in alternative certification to be a function of the interaction between the program as implemented, the school context in which participants are placed, and the participants' backgrounds and previous teaching experiences.*

Conclusions: *We conclude by questioning the usefulness of comparing different alternative*

certification programs and instead suggest that a better unit of analysis would be a subgroup of individuals with similar backgrounds, school placements, and learning opportunities.

INTRODUCTION

Throughout the United States, alternative routes into the teaching profession are becoming increasingly commonplace. Alternative teacher education programs proliferated in the mid-1980s, when projected teacher shortages pushed many state education departments and school districts to create ways of placing a certified teacher in every classroom (Dial & Stevens, 1993; Feistritzer, 1993). The drive for alternative certification continued to grow during the 1990s. By 2003, 43 states and the District of Columbia had state-run programs, compared with only 8 states in 1983. In addition to those initiatives, colleges and universities have also established alternative teacher preparation programs (National Center for Alternative Certification, 2004). In many states, alternative certification now plays a central role in the production of new teachers. The National Center for Alternative Certification (2004) estimates that more than 200,000 persons have been licensed through state-sponsored alternative certification programs, with thousands more earning certification through college-sponsored alternative programs.

Policymakers have proposed alternative certification as a means to meet the demand for more teachers while still improving teacher quality (U.S. Department of Education, 2002). The U.S. Secretary of Education's Third Annual Report on Teacher Quality (U.S. Department of Education, 2004) promotes alternative certification, and the federal *No Child Left Behind Act* considers teachers in alternative certification programs as "highly qualified."

Ironically, although alternative certification has become part of the educational lexicon, agreement about what constitutes alternative certification has yet to be reached. Some states deem any postbaccalaureate teacher education program an alternative program, whereas others consider a postbaccalaureate program the traditional route. Some states use the term alternative certification for programs that place teachers in classrooms before they complete training. Also included under the term are national programs such as Teach for America and Troops to Teachers that recruit candidates into teaching and provide support, but whose participants must also complete other certification programs. A newer program, the American Board for Certification of Teacher Excellence, established a credentialing system that measures teachers' content knowledge and classroom skills through standardized tests administered online.

Further complicating matters, some differentiate between the terms *alternative certification*, which they define as reduced training for entry into teaching, and *alternative route*, which they define as pathways other than 4-year undergraduate or 1- or 2-year postbaccalaureate programs that enable candidates to meet the same standards. Others use the terms interchangeably. For the purposes of this study, we define alternative certification as programs or licensing routes that allow persons to enter the teaching profession by earning a standard license or teacher certificate without completing a traditional 4- or 5-year university-based program. We use the terms alternative certification and alternative route interchangeably throughout the paper.

The existing range of alternative certification programs raises questions about which types of programs prepare highly qualified teachers. However, little evidence exists from which to draw inferences about what form alternative teacher preparation should assume. The research that is available consists of limited evaluations of programs and of teacher perceptions and tends to compare alternative with traditional certification, rather than examine the direct contributions of alternative certification programs. Further, much of the research on alternative certification programs fails to describe the programs being studied adequately.

The research described here is intended to fill part of this knowledge gap. This paper presents results from the first of a two-phase research program designed to explore the components of various alternative routes to teacher certification and their relative effectiveness in preparing teachers. Ultimately, our goal is to understand the impact of alternative certification programs on participants to delineate the characteristics of effective alternative certification programs, as well as to document their effects. First, however, we needed a refined understanding of alternative certification. Thus, our initial research sought to describe in detail seven very different programs to understand who participates in these programs and how the programs are structured (i.e., what learning opportunities they provide). A subsequent paper will explore the impact of the programs on teachers' knowledge and skills.

In this paper, we first describe our methodology and provide brief descriptions of the alternative certification programs included in our research. We then present findings from the first phase of our research to demonstrate where common conceptions of alternative certification participants and programs are accurate and where they are faulty or imprecise. We conclude with a discussion of the implications of these findings for future research and for the improvement of alternative certification programs.

STUDY METHODS

We employed multiple data collection activities, gathering data on two levels—the programs and the participants. To arrive at a deeper understanding of alternative certification, we conducted case studies of seven alternative certification programs. We used a purposive sampling strategy to ensure that our case study programs met certain practical and theoretical criteria. Specifically, because we wanted the bulk of our case study programs to be applicable to a wide audience, we attended to program scale and replicability in our sample selection. We also chose programs that varied along the two dimensions we theorized were important to program outcomes: intensity of support provided and participant characteristics.

For each case study program, we conducted interviews with key personnel related to the alternative certification programs three times over the course of the study (spring 2003, fall 2003, spring 2004). Respondents included the program director, teaching faculty, support providers, certification advisors, classroom supervisors, and other relevant personnel. The interviews explored the purpose and philosophy of the program, program components and learning opportunities provided, local and state contexts, the prior experience and education of program participants, challenges faced in program implementation, and evidence of effectiveness. We also collected and examined documents related to the programs, including program descriptions, course syllabi, existing evaluations or evidence of effectiveness, and other related documents produced by the programs or others.

Participant-level data were collected over the course of the 2003–04 academic year. For each case study site, we surveyed program participants at the beginning of their participation in the program, and again at the end of their first year of teaching.¹ Our survey included questions about participants' background (e.g., past professional experiences, college degrees and majors, gender, ethnicity, and languages spoken), perceptions of preparedness for teaching, reasons for going into teaching, and reasons for choosing the particular alternative certification program. The questionnaire also measured participants' pedagogical content knowledge in reading and mathematics, and their attitudes and beliefs about teaching and learning.²

In each case study program, we followed 10–13 participants as they progressed through the first year of their program. We used a two-phase sampling strategy to select target participants. First, we randomly selected schools in which the alternative certification teachers were working. Then, in schools with more than three participants, we randomly selected

participants to follow. We observed each one in his/her classroom twice—once in the fall (i.e., toward the beginning of their teaching experience) and once in the spring (i.e., toward the end of their first year of teaching). We used a structured observation instrument to focus on the classroom learning environment, as well as the teacher's pedagogical strategies and classroom management. We also conducted in-depth interviews with each participant that consisted of three parts: (a) his/her perception of the lesson we observed and connections between his/her instructional strategies and the alternative certification program; (b) his/her background, experiences in and perceptions of the alternative certification program, the school in which he/she was working and other professional development experienced, and feelings of his/her readiness to teach; and (c) a case scenario designed to assess knowledge, attitudes, and beliefs about teaching. This strategy entailed presenting the participant with a realistic classroom-based scenario and asking how he/she would respond to the specific situation and the reasons for doing so. The case scenarios helped ground each interview in a discussion of a consistent set of teaching problems. We also conducted interviews with other individuals influential to the participant's development as a teacher, including the principal and coaches or mentors who worked closely with the participant.

This mix of research activities provided data that are both broad and deep. Although we report only on our initial data and have not yet completed the full analysis, at this point we are able to describe the alternative certification programs and the variations that exist among them, both in design and in practice; determine participant and program factors that affect teachers' development; and refine our understanding of alternative certification programs and their participants. In a subsequent report, we will examine participants' learning by comparing individuals' growth on the survey measures of pedagogical content knowledge and their self-reported growth in teaching skills, and relate growth measures to their learning opportunities.

AN INTRODUCTION TO THE CASE STUDY PROGRAMS

The study is based on data from the following seven alternative certification programs: the Teacher Education Institute in Elk Grove (CA) Unified School District, Milwaukee's Metropolitan Multicultural Teacher Education Program, North Carolina's NC TEACH, the New Jersey Provisional Teacher Program, the New York City Teaching Fellows Program, Teach for America, and the Texas Region XIII Education

Service Center's Educator Certification Program. An overview of the programs is displayed in Exhibit 1.

Exhibit 1. Program Summaries

	Stated Purpose(s)	Entrance Requirements	Primary Program Components	Number of participants
New Jersey's Provisional Teacher Program	<ul style="list-style-type: none"> —To allow career changers and other talented individuals streamlined access to the teaching profession —To eliminate the need to hire emergency teachers 	<ul style="list-style-type: none"> —2.75 minimum GPA —Major in subject —Passing score on the Praxis II subject assessment test or National Teacher Examination specialty area test 	<p>Preservice:</p> <ul style="list-style-type: none"> —Individuals obtain a certificate of eligibility authorizing them to seek a teaching position —Once individual accepts an offer with a school, the state issues a provisional license —Pilot program offers 40 hours preservice training <p>Inservice:</p> <ul style="list-style-type: none"> —200 hours of training offered at regional centers —Evaluation by district three times, the last of which includes a recommendation for standard licensure —Full-time mentor for initial 20-day period; continued mentor support for next 30 weeks 	2,800
Texas Region XIII Education Service Center's Educator Certification Program	<ul style="list-style-type: none"> —To recruit mid-career professional and recent college graduates in high-need subject areas 	<ul style="list-style-type: none"> —2.5 overall GPA or 2.75 in last 60 semester hours —Competency in reading, writing, and math shown through test records, college coursework, or master's degree —Required coursework and semester hours in desired area —Online interview —Professional references —Daily computer access 	<p>Preservice:</p> <ul style="list-style-type: none"> —Courses offered online and at the Region XIII training center in the spring —2 week field experience <p>Inservice:</p> <ul style="list-style-type: none"> —Continued coursework —School-based mentors who are trained by Region XIII —Program-based field supporters 	300
Milwaukee's Metropolitan Multicultural Teacher Education Program	<ul style="list-style-type: none"> —To provide urban children living in poverty with effective teachers —To recruit and prepare minority teachers —To prepare teachers who will remain in the Milwaukee system 	<ul style="list-style-type: none"> —At least 1 year as a Milwaukee paraprofessional or teacher's aide —Interviews by Milwaukee Public Schools and University of Wisconsin-Milwaukee —Admissible as post-baccalaureate student in university's School of Education 	<p>Preservice:</p> <ul style="list-style-type: none"> —6 weeks of coursework and summer school teaching —Must receive positive evaluation to continue in program —University classes <p>Inservice:</p> <ul style="list-style-type: none"> —Weekly university classes —Minimum of weekly visits by full-time mentors —Regular evaluations by supervisors 	20

	Stated Purpose(s)	Entrance Requirements	Primary Program Components	Number of participants
New York City Teaching Fellows Program	—To fill vacancies in New York City’s lowest performing schools	—3.0 minimum GPA —Interview event comprised of a sample lesson, discussions of education articles, responses to classroom issues, and one-on-one interview	Preservice: —8 weeks of master’s degree coursework provided by local public and private colleges and universities, field placement, and meetings with an advisor Inservice: —Master’s degree coursework —Mentor provided by schools —Monthly mentor provided by university	2,600
NC TEACH	—To support mid-career professionals who want to switch to a career in education	—2.5 minimum cumulative GPA —Degree with a major in, or relevant to, desired licensure area —At least 3 years of full-time work experience	Preservice: —Orientation —5 week summer institute of full-time coursework offered at 13 University of North Carolina campuses Inservice: —Continued coursework, advisement, and support —Mentor assigned by local education agency	452
Teach for America	—To close the achievement gap by providing teachers to under-resourced schools and producing future leaders committed to closing the achievement gap	—2.5 cumulative grade point average —Exhibit certain characteristics (have records of achievement and commitment to TFA mission, accept responsibility for outcomes, demonstrate organizational ability, show respect for others, possess critical thinking skills)	Preservice: —Assigned readings, structured teacher observations, follow-up conversations with observed teachers —5-week summer training —1-2 week orientation in placement region Inservice: —Participants attend a certification program offered by a local university or other credentialing program —Ongoing support from the TFA regional office (learning teams, observations with feedback, workshops, discussion groups, “all corps” meetings)	1,800
Teacher Education Institute—Elk Grove (CA)	—To meet the growing district’s need for credentialed teachers —To increase teacher quality by training teachers in the district’s curriculum and practices	—2.5 minimum GPA	Preservice: —80 hours of coursework —Classroom observations Inservice: —Coursework —Internship in classroom of a “master teacher coach”—16 hours per week in fall , 4 days per week in spring	100

WHO PARTICIPATES IN ALTERNATIVE CERTIFICATION PROGRAMS?

A dozen years ago, Willis Hawley (1992) pointed to the many shortcomings of the research on alternative certification, including basic unanswered questions about the characteristics of individuals who pursue an alternative route into teaching. He asked,

Do alternative programs attract to teaching persons with needed qualities and interests who would not otherwise have become teachers? These needed qualities and interests include: intelligence, subject matter knowledge, gender, maturity, race, ethnicity, and commitment to students. (p. 9)

Recent literature reviews suggest that we still have not been able to address Hawley's basic questions, much less his more ambitious ones (Humphrey, Wechsler, Bosetti, Wayne, & Adelman, 1999; Wilson, Floden, & Ferrini-Mundy, 2001; Zeichner & Shulte, 2001). Although some research on the characteristics of alternative certification teachers has been conducted since the early 1990s, the debate over alternative versus traditional certification has done more to obscure the facts than advance the research. Today, many popular and professional views of alternative certification teachers are more likely to be based on personal belief and anecdote than on solid research.

We begin this section with an overview of what the existing research says about the characteristics of alternative certification teachers. We then review several assumptions that proponents and opponents of alternative certification routinely accept as factual. We devote the bulk of this section to considering those assumptions in light of what we have learned about the participants in the seven alternative certification programs in our study.

WHAT DOES RESEARCH TELL US ABOUT THE CHARACTERISTICS OF ALTERNATIVE CERTIFICATION TEACHERS?

None of the research on alternative certification, including our current work, tells us everything we need to know about the backgrounds of individuals who participate in alternative certification programs. There are many programs, but research studies that do exist are often based on evidence concerning a single program. That said, researchers generally agree that alternative teacher certification programs are designed to entice persons with various educational, occupational, and life experiences to become teachers (Feistritzer, 1993, 1998; McKibbin & Ray, 1994;

Stoddart, 1993; Wise, 1994). Alternative certification programs are assumed to help diversify the pool of new teachers by attracting more men, minorities, and mature or experienced individuals. Indeed, some programs appear to recruit mid-career switchers; retired military personnel; people of color; and candidates with subject-matter specialties or strong interest in fields with teacher shortages such as mathematics, science, special education, and bilingual education (Wilson, Floden, & Ferrini-Mundy, 2001; Zeichner & Shulte, 2001). Research published more than a decade ago found that the New Jersey Provisional Teacher Program and the Los Angeles Paraprofessional Program had higher percentages of males, minorities, and people older than 30 than did traditional programs. In addition, teachers in these alternative programs were more likely to prefer to teach and to continue teaching in urban areas (Natriello & Zumwalt, 1993) and were less likely to see inner-city students as “culturally deficient” (Stoddart, 1993) than did traditionally prepared teachers.

Research findings about the academic strengths of teachers who enter the profession through an alternative certification program are inconsistent. Zeichner and Schulte (2001) describe divergent findings in the studies they reviewed comparing National Teacher Examination scores of participants in single programs.³ In some cases, alternative certification programs require higher grade point averages for admissions than do traditional programs; in other cases, programs accept lower grade point averages.

Overall, then, the research on the backgrounds of alternatively certified teachers is sparse. Characterizations of these teachers, however, are plentiful. We examine these next.

HOW ARE ALTERNATIVE CERTIFICATION TEACHERS TYPICALLY CHARACTERIZED?

Despite the lack of research on alternative certification participants, both proponents and opponents of alternative certification have characterized participants in ways that support their arguments. These characterizations, often accompanied by anecdotes about individual teachers, are frequently polar opposites but have become part of the conventional wisdom about the advantages or disadvantages of alternative certification teachers.

Proponents of alternative certification, who are often opponents of traditional teacher preparation as well, view state certification rules and regulations as unnecessary hurdles and barriers that prevent talented individuals from becoming teachers. They describe alternative certification

teachers as smart and mature individuals—business people, lawyers, scientists, and engineers—in search of a second career that they find socially meaningful and personally rewarding. Supporters of this characterization often justify it with the argument that many alternative certification teachers are committed, well-paid professionals willing to sacrifice salary and other benefits to make a difference in the lives of young people. Some proponents also argue that alternative certification teachers make outstanding educators because of their real-world experience or, in the case of TFA, because they represent some of our country’s best educated and brightest young people. Others contend that alternative certification can effectively address chronic shortages of mathematics and science teachers, by moving scientists, mathematicians, and engineers into classrooms. Still others present evidence that suggests that alternative certification teachers are more likely to be from more diverse backgrounds than traditionally certified teachers.⁴

In contrast, opponents of alternative certification paint a far less rosy picture. Some view alternative certification as merely a mechanism for managing the inevitable teacher shortages in a market-driven system. They argue that quality is sacrificed when a program’s primary purpose revolves around quantity issues. Alternative certification, the opponents maintain, provides a supply-side safety valve that allows unprepared individuals who have met minimal requirements to cover shortages in specific disciplines or in hard-to-staff schools. Other critics of alternative certification, referring to the high attrition rates among this group, question the participants’ commitment to teaching. They see some alternative route teachers as temporary workers, using teaching as a bridge over a sluggish economy or as brief stop on the way to another career. Because minority teachers are more likely to pursue an alternative route than nonminority teachers, they assume, others have argued that alternative routes discriminate against minorities, offering them a lower quality preparation and the most challenging positions in the most difficult schools. As this argument goes, the neediest students in the most troubled schools end up with the least prepared teachers; both teachers and students are thus poorly served.⁵

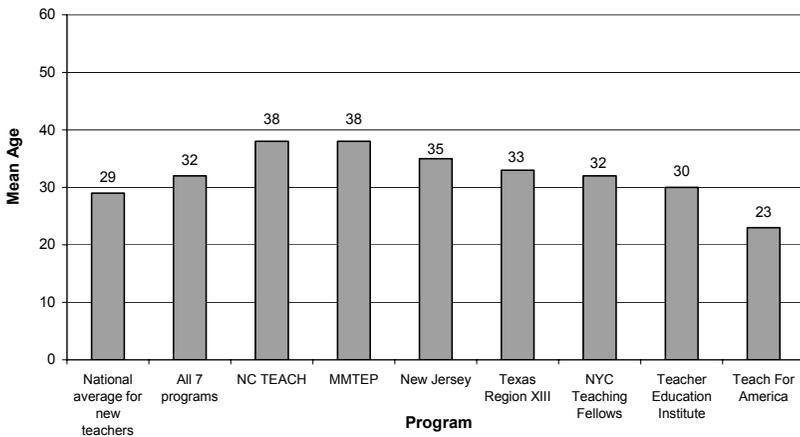
Our research is unlikely to resolve the debates about the merits of alternative certification; our data primarily allow us to speak about seven of the many alternative certification programs in the country. However, the seven programs do represent a range of programs and include some of the largest and best-known programs in the country. Importantly, each characterization of alternative certification teachers holds some element of truth. As our data illustrate, alternative certification teachers make up a diverse group. In the next section, we answer some of the key questions

raised by the divergent characterizations of alternative certification participants.

DOES ALTERNATIVE CERTIFICATION ATTRACT MORE MATURE INDIVIDUALS INTO TEACHING?

Nationally, alternative certification teachers are, on average, 36 years old compared with beginning teachers who average 29 years of age (NCES, 2002b).⁶ Across our seven case study programs, the average age of participants is about 32, only slightly higher than the national average of beginning teachers. Participants' ages vary greatly among the programs, however, with TFA participants being notably younger than the national average and NC TEACH and MMTEP participants being markedly older. This variation can be explained, in part, by programs' recruiting practices. TFA targets recent college graduates from selective universities, whereas MMTEP focuses on applicants with classroom experience and admits only those who have at least 1 year of experience as a teacher's assistant. Exhibit 2 highlights the differences in the average ages of program participants.

Exhibit 2. Mean Age of Participants, by Program



Sources: SRI Survey of Alternative Certification Program Participants (2003, 2004); NCES (2002b).

Of course, averages mask the age range of participants within programs. Although most TFA participants tend to be close to the program's average age of 23, New Jersey's Provisional Teacher Program has participants who range in age from 22 to 63. Indeed, 6 of the 7 programs had

similarly broad age ranges. Thus, whereas most alternative certification programs are effective at attracting mature individuals into teaching, participants in alternative certification programs are not necessarily older adults. Our data suggest the most accurate way to portray alternative certification participants is as a diverse group of both young and older individuals.

DOES ALTERNATIVE CERTIFICATION ATTRACT MORE MALES INTO TEACHING?

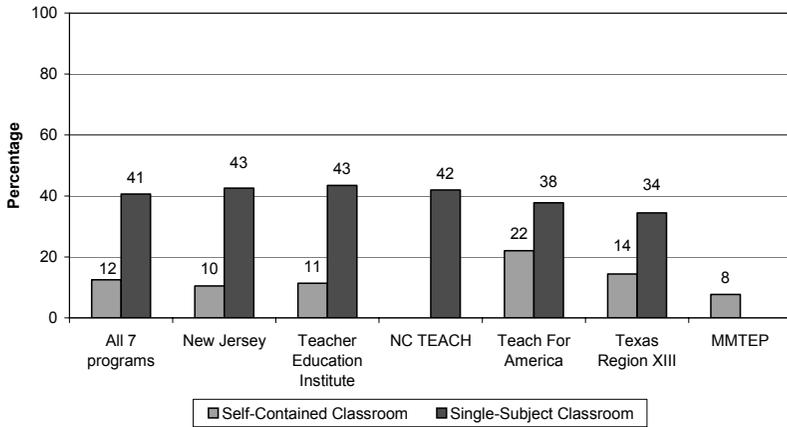
Overall, far fewer men than women become teachers, and some view alternative certification as a way to attract many more men into the profession. However, national data and the data from our seven programs do not support that assumption. Nationally, men accounted for only 11.5% of all elementary school teachers during the 1999–2000 school year; alternative certification teachers were only slightly more likely to be male (13%). At the secondary level, 40.5% of all teachers were men, but alternative route secondary teachers were slightly less likely to be male (39%) (NCES, 2002b).

In the seven alternative certification programs we examined, about three-quarters of participants are women, a number consistent with the national average for all teachers (NCES, 2002a). Again, averages mask variations. Exhibit 3 presents the percentage of male participants in self-contained and single-subject placements, respectively, in six of the seven case study programs. Note that we asked whether participants were placed in a multiple- or single-subject classroom, not if they were elementary or secondary school teachers.

As Exhibit 3 demonstrates, the proportion of males who participate in alternative certification varies by program. For example, men make up 43% of the participants in single subject placements in the New Jersey Provisional Teacher Program, but only 34% of those in single subject placements in the Texas Region XIII were men. In general, the programs tend to follow national patterns, but with some notable exceptions. TFA, for example, seems to attract more males into teaching in self-contained classrooms (22%), a loose proxy for elementary and some middle school teaching, than national averages. What accounts for those programs' success in recruiting men remains unclear. We speculate that TFA's mission appeals to men motivated by the organization's social change agenda or TFA's focus on building leaders rather than requiring a long-term commitment to teaching.

The assertion that alternative routes attract many more men into teaching, thus, is not supported by the available data. As the national numbers

Exhibit 3. Percent Male Participants, by Program



Source: SRI Survey of Alternative Certification Program Participants (2003, 2004).

Note: NC TEACH does not offer a multiple subject credential. MMTEP does not offer a single subject credential; reports for MMTEP are for all participants. Data were not available for the New York City Teaching Fellows Program.

suggest, overall, only slightly more men pursue an alternative route than a traditional one. In our cases we found examples of individual programs that were more or less successful in attracting men into the profession. Clearly, more needs to be known about how programs successfully recruit men into teaching and if those men remain in the profession.

DOES ALTERNATIVE CERTIFICATION ATTRACT MORE MINORITIES INTO TEACHING?

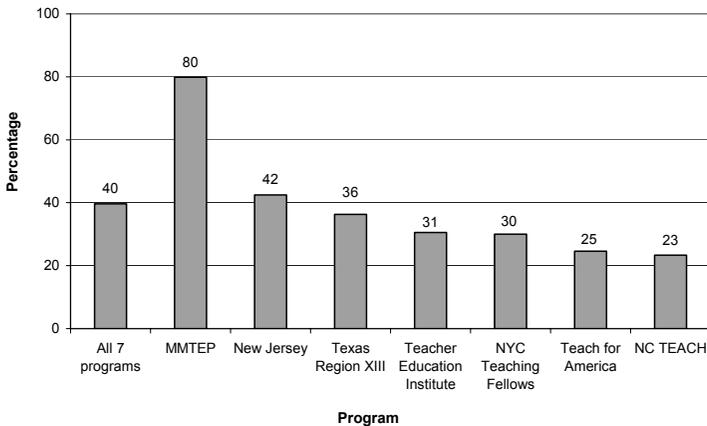
African Americans, Hispanics, and other minority groups historically have been underrepresented in teaching. In 1999–2000, whites represented about 90% of all teachers (NCES, 2002b). At first glance, the compositions of participants in the seven case study programs seem to suggest that alternative certification can be effective at diversifying the teaching profession. Among the seven alternative programs, minority teachers make up 40% of participants. However, national figures indicate that only about 14% of alternative route teachers in 1999–2000 were minorities (NCES, 2002b).

As with the other demographic data presented, looking beyond averages provides further insights. Although the percentage of minorities in

some programs surpasses the national average, the numbers reflect the local teacher labor market (see Exhibit 4). For example, about 36% of the Texas Region XIII participants are African American or Hispanic. Although higher than the national average, that percentage is just slightly more than the 29% of teachers in Austin (the largest district served by the Region XIII program) who are African American or Hispanic.⁷ New Jersey demonstrates a similar pattern. Our sample of participants from three New Jersey program sites appears to be more diverse than the population of teachers in the state as a whole (42% minority vs. 14% minority, respectively). However, a closer look suggests that the alternative certification teachers mirror the racial diversity of teachers in the local labor market. In Newark, for example, 59% of alternative certification teachers are African American or Hispanic, the same percentage as minority teachers in the district as a whole.⁸

MMTEP stands out as the outlier, with 80% of its participants being minority. Not only is this highest percentage of the seven programs we studied, but it is significantly higher than the Milwaukee Public Schools as a whole, which has only 28% minority teachers (Wisconsin Department of Public Instruction, 2005). MMTEP's high minority population reflects one of the program's primary goals—to recruit and prepare African American and other minorities into the teaching profession.

Exhibit 4. Percent Minority Participants, by Program



Sources: SRI Survey of Alternative Certification Program Participants (2003, 2004). New York City data are from *The New Teacher Project* (2004).

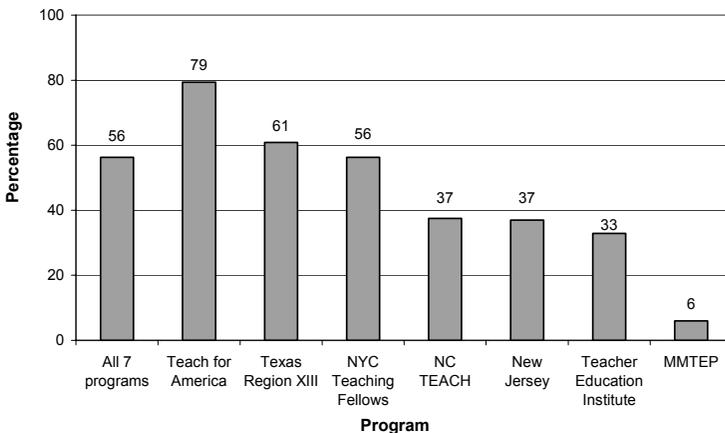
In other cases, the population of alternative route teachers is slightly less or slightly more racially diverse than that of the districts where they work. In 2003, minorities accounted for just over 30% of New York City Teaching Fellows, compared with 40% of all New York City teachers (New Teacher Project, 2004). On the other hand, Elk Grove has a teacher workforce that is nearly 80% white, compared with only 70% of participants in TEI. Even with TEI's more diverse pool, however, the district's workforce falls far short of reflecting the diverse student body it serves, which is 32% white, 20% Latino, 20% African American, 19% Asian, and 9% other groups (EGUSD, 2003).

The data indicate that although the participants in our seven programs are more diverse than the population of teachers generally, not all programs are more diverse than the population of teachers in their local labor market. Instead, a more accurate description of the racial diversity of alternative certification participants we found in our case studies would be that they generally reflect the demographic composition of the local labor markets where they teach.

DOES ALTERNATIVE CERTIFICATION ATTRACT WELL-EDUCATED INDIVIDUALS INTO TEACHING?

As described earlier, popular conceptions differ about the educational backgrounds of participants who enter teaching through alternative routes. One way to learn about the educational backgrounds of alterna-

Exhibit 5. Percentage of Participants Who Attended Competitive Undergraduate Universities, by Program



Source: SRI Survey of Alternative Certification Program Participants (2003, 2004).

tive certification participants is to examine the competitiveness of the colleges they attended. In our analysis, we used Barron's six-scale ranking for undergraduate universities and coded participants as having attended a competitive or a noncompetitive institution of higher education (IHE). We included Barron's three highest rankings in our competitive category and three lowest rankings in our noncompetitive category.⁹ Although alternative route teachers are overall more likely to have graduated from competitive IHEs than from noncompetitive ones, again, we found wide variation (see Exhibit 5).

As Exhibit 5 illustrates, the percentage of alternative certification participants attending a competitive college ranges from 79% of TFA participants to 6% of MMTEP's participants. Most likely, the variation can be explained either by program recruitment strategies or proximity to a competitive college or university. TFA, for example, specifically recruits graduates from the highest ranked universities. Although the Texas Region XIII program does not have such a narrow recruitment strategy, we suspect that the high percentage of participants from competitive IHEs probably reflects the proximity of the program to the University of Texas at Austin. MMTEP, in contrast, recruits teacher's aides working in the Milwaukee public schools, many of whom are from the local community and attended less competitive local colleges.

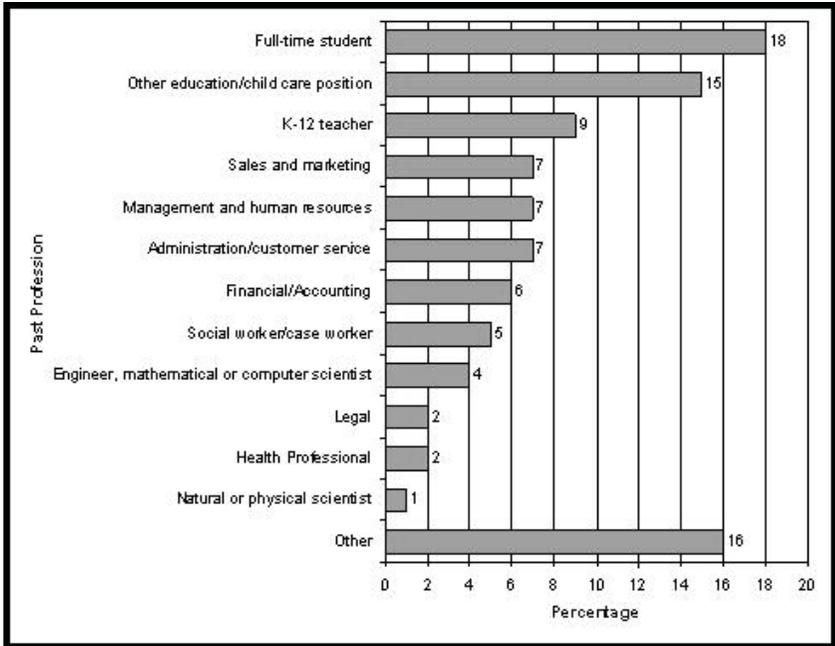
Overall, then, some of the programs attract significant numbers of individuals who attended competitive colleges and universities, whereas others do not. The research suggests that teachers with strong academic backgrounds may be more effective than less well-educated teachers (Ballou & Podgursky, 1997; Wayne & Youngs, 2003). On the other hand, programs like MMTEP argue that their recruiting strategy results in new teachers who are committed to their communities and less likely to move on after a few years. Of course, the competitiveness of the college or university that an individual attended is just one indicator of a well-educated individual. Just how well-educated the program participants are, compared with those who pursue a traditional route, remains open to consideration.

DOES ALTERNATIVE CERTIFICATION ATTRACT CAREER-CHANGERS INTO TEACHING?

Alternative certification programs are often thought of as an effective means for attracting career-changers. As the argument goes, alternative routes allow business people, scientists, mathematicians, lawyers, architects, engineers, and other skilled professionals to bring their experience and acumen to the teaching profession. Although we did find career-

changers with impressive professional backgrounds, our seven programs were most likely to have attracted individuals who had most recently been full-time students or had been employed in some education-related field. Exhibit 6 presents the prior careers of participants in the seven programs.

Exhibit 6. Prior Careers of Alternative Certification Participants



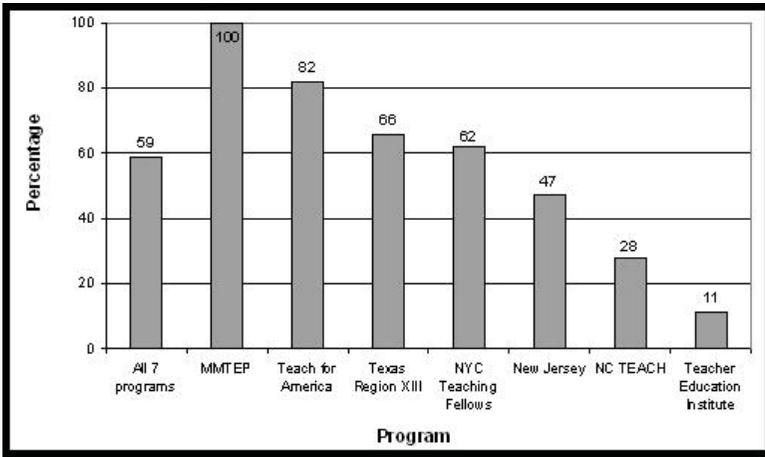
Source: SRI Survey of Alternative Certification Program Participants (2003, 2004).

In our seven programs, relatively few participants switched from careers in mathematics and science to teaching (about 5%). Only 2% came from the legal profession, and 6% from a financial or accounting career. In contrast, about 42% of participants were either in education or were full-time students immediately before entering their alternative certification program.

In addition, although many commentators believe that alternative certification participants are career-changers who willingly take pay cuts to pursue more meaningful work, we found that 59% of participants in fact received a pay raise by becoming teachers (see Exhibit 7). Again, the variation among programs reveals interesting contrasts. MMTEP partici-

pants, for example, are transitioning from lower paid teacher's assistant positions, and the majority of TFA participants recently graduated from college. In Elk Grove, because the district does not typically pay participants during the program, many participants took a temporary salary reduction to attend.

Exhibit 7. Percentage of Participants Receiving an Increase in Pay from their Previous Employment



Source: SRI Survey of Alternative Certification Program Participants (2003, 2004).

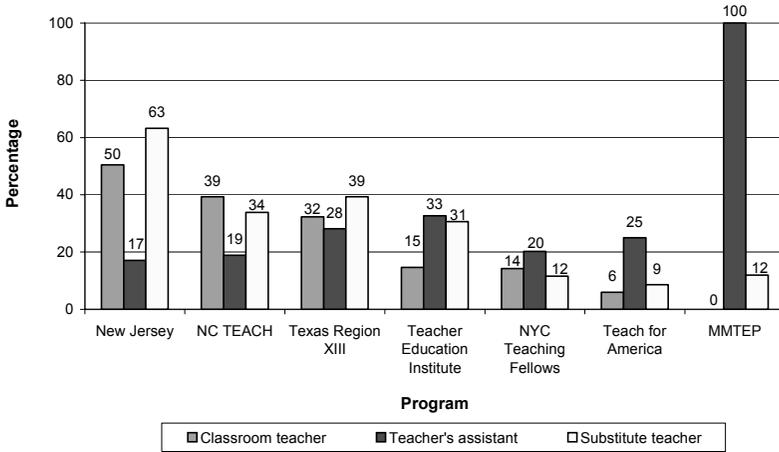
Overall, then, the general characterization of alternative certification teachers as career-changers who are sacrificing income is probably not accurate. The variation evident across programs suggests that carefully examining each program, as we do in Exhibit 7, will provide a more nuanced and precise understanding of these programs' impacts on the finances of alternative certification teachers. At the same time, the data on previous careers point to a large number of alternative route teachers who had significant previous experience working with children. We discuss their experiences in the next section.

ARE ALTERNATIVE CERTIFICATION PARTICIPANTS INEXPERIENCED AND UNTRAINED?

In addition to asking participants about their most recent careers, we also asked them if they had any experience working in classrooms. Many opponents of alternative certification assume that participants lack any educational skills or training. The data indicate, however, that large percentages of participants possess prior classroom experience. As Exhibit 8 illustrates, in three programs—Texas Region XIII, NC TEACH, and the

New Jersey program—more than one-third of participants had previously worked as classroom teachers or substitutes at some time in their careers. Of course, all MMTEP participants had experience as teacher’s aides, but more than a quarter of Texas Region XIII, TFA, and TEI participants had also held similar positions in schools.

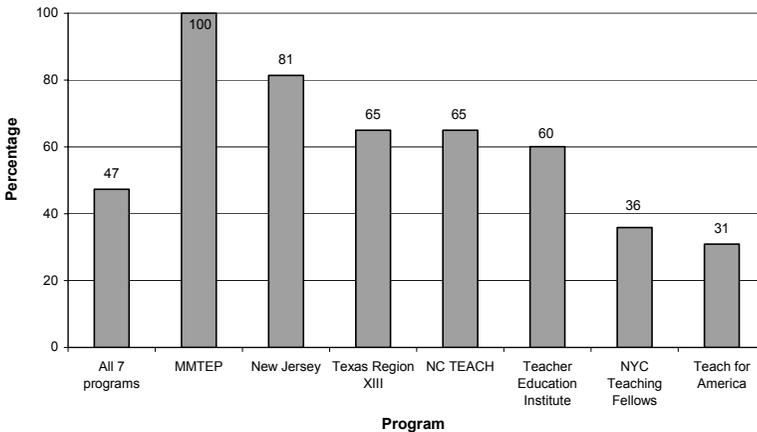
Exhibit 8. Percentage of Participants with Prior Experience Working in a Classroom



Source: SRI Survey of Alternative Certification Program Participants (2003, 2004).

Note that Exhibit 8 reports duplicate counts; that is, a single participant may be represented as having experience as a classroom teacher, a

Exhibit 9. Percentage of Participants with Some Classroom Experience

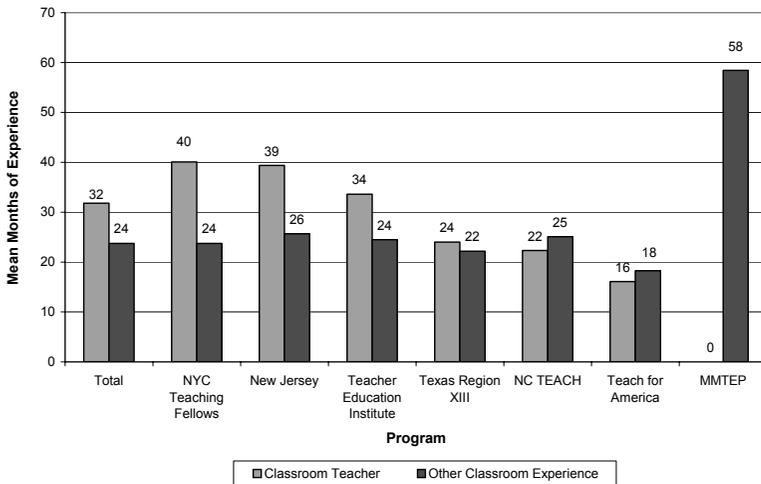


Source: SRI Survey of Alternative Certification Program Participants (2003, 2004).

substitute teacher, and a teacher's aide. The percentage of participants who had any one type of previous classroom experience is more striking. For five of the seven programs, more than 60% of their participants report some previous classroom experience (see Exhibit 9).

Although further study about the quality of their time spent working in classrooms needs to be undertaken, we were surprised by the amount of experience alternative certification participants brought to their respective programs (see Exhibit 10). As Exhibit 10 illustrates, alternative certification participants who reported having prior classroom experience tend to have had many months of experience.

Exhibit 10. Months of Participants' Prior Classroom Experience, by Program



Source: SRI Survey of Alternative Certification Program Participants (2003, 2004).

New Jersey's Provisional Teacher Program attracted the largest number of participants with prior teaching experience. Half of the participants had an average of 39 months of teaching experience. For some, the duration of their prior experience may be related to the timing of their participation in the program. Specifically, some participants had started teaching, but could not attend program classes because of paperwork delays at the New Jersey State Department of Education.¹⁰ Further, while only 14% of New York City Teaching Fellows had prior experience as a classroom teacher, those participants had an average of 40 months of teaching experience.

In general, alternative certification participants routinely bring some classroom experience with them to their preparation programs. The

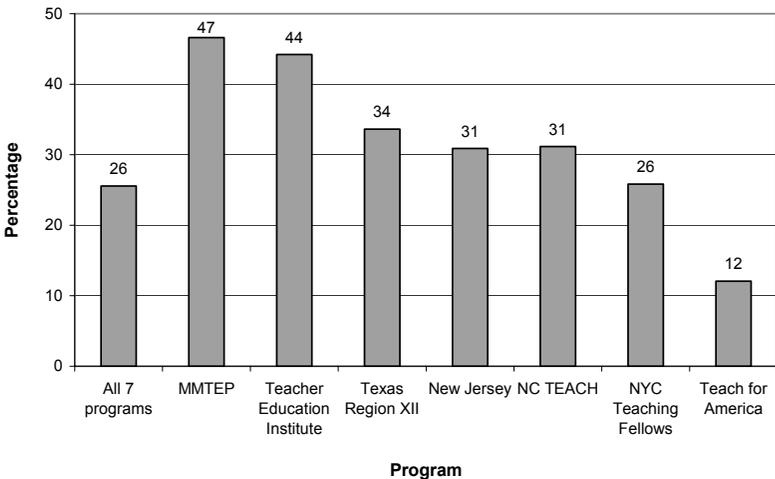
data, then, do not support the characterization of alternative certification teachers as individuals inexperienced in classrooms.

WHY DO PARTICIPANTS ENTER THE TEACHING PROFESSION, AND DO THEY PLAN TO STAY?

Alternative certification proponents maintain that the unwieldy nature and numerous requirements of traditional programs deter qualified people, who would otherwise become teachers, from entering the teaching profession. Alternative certification opponents argue that individuals taking the alternative route do not demonstrate a serious commitment to the profession. Still others argue that some individuals take advantage of alternative certification policies to weather an economic downturn or as a temporary stop on their way to another career.

To explore the legitimacy of these arguments, we examined participants' motivations for entering teaching. Given the large number of participants with prior classroom experience, it is not surprising that significant percentages of participants in all programs except TFA had long planned on a teaching career and reported that "teaching had always been their calling" (see Exhibit 11). On the other hand, when we asked our program participants if they "wanted to explore teaching as a career," only 20 to 30% of participants from all programs except TFA answered in the affirmative.

Exhibit 11. Percentage of Participants Who Joined Their Program Because "Teaching Has Always Been Their Calling," by Program

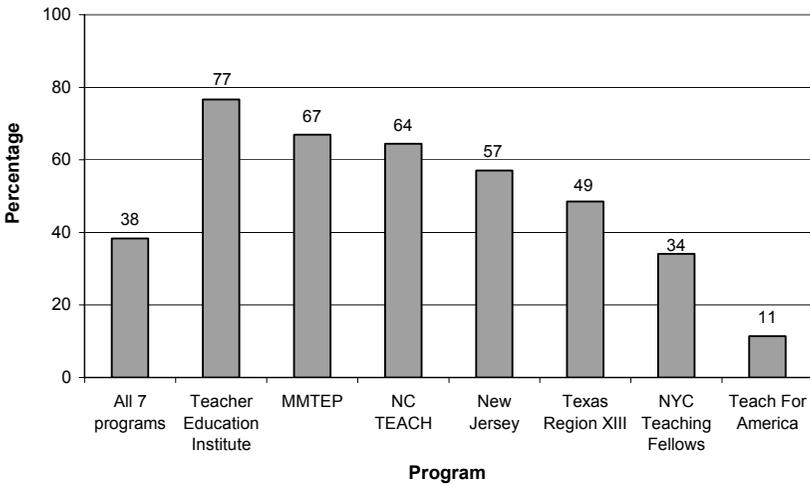


Source: SRI Survey of Alternative Certification Program Participants (2003, 2004).

The motivations of TFA participants differed considerably from those in other programs. Nearly half (46%) of TFA participants indicated that they entered their program to explore teaching as a career. Another one-third reported that they “wanted to contribute to society before moving on to another field outside of education.” Very few participants in the other programs responded in this way. Further, whereas about one-quarter to one-third of participants from the other programs reported that they “wanted to do something more satisfying than my previous career,” only 8% of TFA participants held that view.

When we asked participants about their long-term plans, large percentages in most programs reported that they intended to still be teaching in 10 years; in fact, in five of the seven programs, at least half of participants planned to be teaching in 10 years (see Exhibit 12). Although intention does not necessarily translate into retention, the data suggest considerable long-term professional commitment among program participants.

Exhibit 12. Percentage of Participants Planning to Teach at Least 10 Years



Source: SRI Survey of Alternative Certification Program Participants (2003, 2004).

Once again, TFA participants differed, with only 11% of TFA participants reporting that they intended to still be teaching in 10 years. TFA participants’ responses, however, do correspond with that program’s overall goals; that is, TFA promotes itself as a leadership development program rather than one designed to address teacher shortages.

Although some participants indicated that they perceived teaching as

an opportunity for career exploration, portraying all alternative certification teachers as individuals with only a superficial interest in the profession ignores the diversity of purposes among both programs and participants. Once again, sweeping generalizations about alternative certification teachers can oversimplify complex personal decisions and programmatic aims.

SUMMARY: A NEW UNDERSTANDING OF PARTICIPANT CHARACTERISTICS

Although our findings primarily reflect the backgrounds and perceptions of participants in seven programs, they do suggest that many of the popular assumptions about the characteristics of alternative certification participants are inaccurate. First, on average, participants in the seven programs are slightly older than traditionally prepared new teachers; however, a more precise way to describe alternative certification program participants is as a diverse group of young and older adults. Second, overall, the seven programs do not attract more men into teaching than the national averages. Third, our participants are more likely to be from minority groups than national averages, but they are not necessarily more racially diverse than the general teacher population in the same districts where they teach. Fourth, despite the expectation that alternative route teachers can fill shortages in mathematics and science, only a fraction of participants in our programs leave careers in these areas for teaching. Fifth, the majority of participants enjoyed salary increases, compared with their previous jobs, as a result of their participation in their program. Sixth, perhaps most surprisingly, large numbers of alternative route teachers have prior experience as classroom teachers or have significant experience working in schools. Finally, participants in our seven programs had a wide range of motivations for becoming teachers. Some programs attracted individuals who had always wanted to teach and planned to stay in the profession, whereas others were geared for individuals who were exploring career options or planning to use their teaching experience to pursue another career.

We now turn to various arguments about alternative certification *programs*.

HOW DO ALTERNATIVE CERTIFICATION PROGRAMS TRAIN TEACHERS FOR THE CLASSROOM?

Hawley's (1992) early critique of alternative certification research noted that studies failed to distinguish among different types of alternative cer-

tification programs. Much recent research continues to provide only cursory descriptions of program components. These descriptions, however superficial, provide the basis for many people's understandings of the type of training provided under the auspices of alternative certification. More recently, Zeichner and Shulte (2001) called for more comprehensive descriptions of alternative certification training:

In order to be able to connect particular components of teacher education programs to teacher performance and so forth, researchers will need to provide much more detailed descriptions of the programs and courses than has been the case to date. It will not be enough to know that a program has a mentoring component, or a course in child development, or so many hours of instruction on this or that. Researchers will need to provide information about the character and quality of these program components if we are to better understand the particular conditions that define a high quality teacher education experience (p. 279).

In this section, we take a more in-depth view of the training provided through the alternative certification programs. We begin with a brief overview of the existing research on the characteristics of alternative certification programs and review common assumptions about the content and character of the preparation they provide. The central part of this section then compares these common assumptions with what we have learned about our case study programs.

WHAT DOES PREVIOUS RESEARCH TELL US ABOUT THE CHARACTERISTICS OF ALTERNATIVE CERTIFICATION PROGRAMS?

The available research states that alternative certification programs vary in numerous ways. In a study of nine alternative certification programs, Darling-Hammond, Hudson, & Kirby (1989) reported that some programs included guided field experiences whereas others did not, the length of programs ranged from 16 weeks to 2 or more years, and the number of course credits ranged from 9 to 45. Researchers have found that alternative certification programs typically offer a shorter preservice training sequence than do traditional programs. Over the last few years, researchers have noted an increase in "short-cut" or "fast-track" alternative programs that offer a brief but intense training before sending individuals into the classroom as the teacher of record (Berry, 2001). In addition, alternative certification programs usually focus on the pragmatic

and technical aspects of teaching (which may include preparing graduates to work with the curriculum and procedures of a specific school district) rather than the theoretical, philosophical, or conceptual aspects of the work (Stoddart & Floden, 1995). Although individual studies may offer some insight into different program elements, little research has been conducted to fully describe program components and determine their contribution to the quality of the program's graduates or to compare the components across programs. In addition, much of the research on alternative certification programs does not provide in-depth program descriptions (Wilson, Floden, & Ferrini-Mundy, 2001).

HOW ARE ALTERNATIVE CERTIFICATION PROGRAMS TYPICALLY CHARACTERIZED?

Although the available research on alternative certification programs provides only a limited foundation for understanding how they operate and their contribution to teachers' development, proponents and opponents offer a variety of characterizations of these programs. Critics describe the programs as "short-cuts" to teaching, whereas supporters prefer the term "fast-track." Proponents highlight the field-based training, whereas opponents argue that the programs place underprepared individuals in the most challenging schools.

The assertion that alternative certification teachers have little or no clinical practice before assuming responsibility for a classroom underlies most critics' arguments. Although research shows mixed results from participating in clinical practice, if it is done effectively this preparation strategy can have a strong positive effect on teachers' skills and knowledge (Wilson, Floden, & Ferrini-Mundy, 2001). Critics maintain that the absence of sustained, carefully planned clinical experience is a fundamental flaw of alternative certification programs. In addition, this same group views the streamlined route to teaching as damaging to the overall profession. Removing or reducing requirements to become a teacher, they assert, threatens professional standards.¹¹

Harsh criticism of traditional teacher preparation underlies the arguments of alternative certification proponents. Critics consider alternative certification to be a welcome substitute for what they deem the trivial content of certain education courses and the pointless barriers of credentialing rules and regulations. In fact, some proponents of alternative certification worry that some programs have begun to resemble traditional programs. These proponents would prefer a market-driven system that allows talented individuals to enter the profession without being encumbered by bureaucratic requirements.¹²

As we examine these and other assertions, we recognize that data from our seven programs are neither comprehensive nor likely to end the debate over alternative certification. However, they do illuminate areas where popular conceptions and program practices differ.

IS ALTERNATIVE CERTIFICATION A FASTER ROUTE INTO THE PROFESSION?

Proponents of alternative certification claim that having a more efficient certification process removes a large barrier to entering the profession and therefore helps attract experienced professionals to the classroom. Opponents, meanwhile, believe that the fast track translates into participants not receiving the preparation they need to be successful educators.

Although many describe alternative certification programs as “fast track,” that designation does not apply to all programs. Four of the seven programs, for example, involve year-long preparation; the Texas Region XIII program lasts for about a year and half; and the New York City Teaching Fellows Program requires 2 years of training. Alternative routes, thus, do not necessarily expedite credentialing. However, alternative certification expedites the process of an individual becoming the teacher of record (i.e., the individual is the teacher with sole responsibility for a classroom). Among our seven case study sites, the most common program structure includes summer coursework with some small amount of clinical practice, followed in the fall with the placement of the participant as the teacher of record in a classroom with mentoring support and continued coursework. All but two of the case study programs mirror this approach. MMTEP, for example, begins in June with its 6-week summer component. During this time, participants take coursework and participate in preservice clinical training, serving as a student teacher in a summer school. After successful completion of the summer component, participants begin the school year in the fall as the teacher of record in a Milwaukee Public School classroom. During the school year, participants continue to attend weekly classes, meet weekly with their mentor, and undergo formal evaluation on a periodic basis.

Not all alternative certification programs follow this popular design, however. Two of the case study programs provide a contrast in the amount of time required in the program before participants serve as teachers of record. The New Jersey program offers the quickest time to become a teacher of record, supporting the conception that alternative certification fast tracks individuals into teaching. In fact, this program requires that teachers have a teaching position before enrolling in the program. Thus, a participant can become a teacher of record before

receiving any preparation whatsoever.¹⁵ TEI in Elk Grove, on the other hand, requires a full academic year of coursework and field experience before participants assume responsibility for their own classrooms. In practice, TEI participants receive substantially more clinical experience than teachers in most traditional preparation programs.

In addition to the definitions already discussed, the term “fast track” can also refer to the requirements for earning certification. Again, the programs we studied varied considerably. When coursework alone is considered, the seven programs require significantly different numbers of credit hours. The New Jersey program, for example, requires the completion of 200 hours of coursework, far fewer than the approximately 400 to 500 hours of coursework required in New Jersey’s traditional university programs. In contrast, participants in the New York City Teaching Fellows Program must complete the same number of graduate credits as those pursuing a traditional master’s degree. This approach does not appear to fit the definition of fast track.

In sum, it behooves the research community to develop a more sophisticated sense of how and when some alternative routes streamline the process of becoming a teacher. Although they rarely lead to faster full certification, programs do, often, place participants in classrooms faster. Other requirements like coursework, however, vary from program to program.

DO ALTERNATIVE CERTIFICATION PROGRAMS LACK CLINICAL PRACTICE?

Alternative certification opponents are particularly concerned about the absence of clinical practice. Programs place alternative certification teachers in classrooms before completing their training, they argue, and without student teaching experience—a situation that may negatively affect students’ academic achievement. In the case of our seven programs, this claim overstates the case. In fact, nearly all of the alternative certification programs include some clinical training, although the length and the quality of that training vary.

TEI in Elk Grove provides the strongest counterexample. As we noted earlier, TEI expects participants to complete a year of largely field-based training before they become responsible for their own classrooms. Participants in the TEI program complete two practicums, one each in the fall and spring. Participants working toward an elementary level credential receive placements in one Title I and one non-Title I school, and have one experience in the primary elementary grades and another in the upper elementary grades. The program places those working toward

secondary certification in a middle school during the summer and in another assignment during the school year. A master teacher coach, an experienced faculty member selected by the district, guides and supervises the practicum by issuing a series of responsibilities in slow progression.

Although TEI differs from the other alternative certification programs we studied, a careful look at all seven programs suggests that alternative certification programs typically have some form of preservice clinical practice, albeit in a truncated form. As Exhibit 13 suggests, most of the programs offer only a limited amount of clinical practice. Alternative route teachers in 6 of our 7 programs received clinical practice lasting 6 weeks or less. In contrast, traditional teacher candidates typically receive 8 to 12 weeks of clinical practice in addition to as many as 100 hours of classroom experiences prior to their clinical practice.

Exhibit 13. Preservice Clinical Experience Required, by Program

Program	Clinical Practice Required Before Becoming a Teacher of Record
MMTEP	6 weeks half-time during summer school
NC TEACH	Classroom observations only
New Jersey Program	4 weeks of co-teaching with a mentor
New York City Teaching Fellows	Some opportunities during summer school
TFA	4 weeks during the summer
TEI, Elk Grove	1 year
Texas Region XIII	2 weeks during summer school

Of course, program descriptions do not necessarily reflect the actual experiences of program participants. Participants did not always receive the program as designed. Not all TEI participants, for example, actually receive a full year of clinical practice. In some cases, program participants became the teacher of record when an opening occurred before program completion. Similarly, New Jersey program participants are supposed to spend their first 4 weeks working with a full-time mentor, a form of clinical practice. However, the reality is that a full-time mentor is rarely available. Instead, participants typically have a mentor who is also teaching his/her own class full-time or is a part-time retired teacher.

The quality of the participants' clinical practice also depends on the skill of the supervising teacher. As with traditional teacher education, student teaching can be a rewarding and educational experience when the master teacher possesses the proper instructional skills and understands how to impart that knowledge to other adults. Some master teachers,

however, do not exhibit quality teaching; or if they do, they may be unable to articulate to the novice tacit knowledge about instruction and classroom management.

The quality of participants' clinical practice also depends on the timing of the placement. In New York City and Milwaukee, for example, alternative certification participants complete their clinical preservice training during summer school. These summer school experiences do expose the participants to students and classrooms; but both programs acknowledge important differences in summer school from the regular academic year, including differences in the student populations served, class sizes (summer school classes are often smaller), and even the curriculum. Thus, preservice during the summer may not be ideal for preparing teachers for the regular school year.

It is useful to remember, however, that large numbers of alternative certification program participants enter their programs with experience as a classroom teacher, teacher's aide, or substitute teacher. In the New Jersey Program, 81% of participants reported having some classroom experience, with half having prior experience as a classroom teacher or substitute teacher. In some of those cases, participants' previous teaching experiences could be thought of as significant clinical experience. The situation in the NC TEACH program is similar. NC TEACH requires participants to complete only classroom observations before becoming the teacher of record and offers no formal clinical practice. Yet, like New Jersey, large numbers of NC TEACH participants enroll in the program with substantial teaching experience.

In sum, it would be inaccurate for opponents of alternative certification programs to portray alternative route teachers as lacking clinical experience. It may be fair to question the adequacy—in terms of quantity or quality—of the clinical practice that some alternative certification teachers receive, but lumping together the experiences of participants oversimplifies the issue.

DOES ALTERNATIVE CERTIFICATION COURSEWORK FOCUS ON THE PRACTICAL ASPECTS OF TEACHING?

Both alternative certification and traditional teacher preparation provide training through coursework. Proponents of alternative certification, however, criticize traditional programs as being alternatively too theoretical or lacking rigor, irrelevant to a teachers' work in the classroom, and an unnecessary obstacle to certification. They argue that alternative certification programs, free from the confines of higher education, can focus on specific skills and knowledge that teachers need in

classrooms. Like many issues discussed thus far, in practice the situation is much more complicated. Alternative certification coursework varies in the emphasis placed on subject-matter content, pedagogy, classroom management, and child development. These variations exist not only among different programs but within individual programs as well.

Some programs primarily focus on preparing graduates to work with the specific curricula of the school districts in which their graduates teach. TEI in Elk Grove is one such program. Although TEI offers a broad array of courses, it also focuses specifically on district adoptions. And, when the adoptions change, so too do the instructional approaches that TEI teaches. TEI used to teach a language development model of reading instruction, for example. When the district switched to Open Court, a phonics-based reading series, TEI began emphasizing phonics. MMTEP, likewise, has developed its own curriculum, which although emphasizing a wide range of topics, is designed to meet the specific needs of teachers in the Milwaukee Public Schools and is tailored to its participants who are already familiar with Milwaukee's classrooms and students. In fact, many times throughout the course, Milwaukee district administrators serve as guest lecturers for particular topics. Moreover, because of the small number of participants and because a single person designs the coursework, the curriculum can be revised in mid-course to accommodate participants' strengths and weaknesses and areas that need further development.

In contrast, some programs emphasize educational foundations and theory, and the content resembles that of traditional teacher education programs. University-based programs tend to center their coursework on the regular preparation program offered through those institutions. A 65-member panel comprised of university faculty and master teachers from across the state, for example, developed NC TEACH's 5,000-page curriculum document, which frames a series of modules. Although organized in a way to address the needs of the program participants, the document covers much of the same content as the traditional university programs, albeit in a condensed timeframe. All 13 host universities use the NC TEACH curriculum.

In contrast, each of the host universities of the New York City Teaching Fellows program designs its own coursework for the Fellows. Because they are pursuing master's degrees, Fellows take a range of courses; however, specific coursework varies across the colleges and universities. Most borrow directly from their traditional training programs, simply tailoring the schedule to meet the needs of the working Fellows by offering evening and weekend classes. Exceptions apply, however. Some colleges departed from their traditional teacher preparation curricula to develop specific

courses for the Fellows. One college, for example, focuses on the district's adopted curriculum. Another operates a much more personalized program with a flexible curriculum, designed to meet the needs of teachers learning on the job.

As with other program components, coursework varies within and across programs. Some alternative certification participants receive the same coursework as traditionally prepared teachers; others receive substantially different coursework. Given such variations, it would be misleading to claim that alternative certification is inherently more practical than traditional teacher preparation.

IS ON-THE-JOB TRAINING ADVANTAGEOUS?

As already discussed, some training components of alternative certification programs reflect those of traditional programs. Others, specifically on-the-job training and mentoring by experienced teachers, are more characteristic of alternative certification. In the vast majority of programs, alternative certification participants serve as the teacher of record in a classroom, learning to teach on the job. To supplement the field-based learning, alternative certification programs often include a mentoring component through which an experienced teacher provides guidance and support to the novice teacher.

Proponents point to the benefits of on-the-job training, noting that the training is entirely practical and matches prospective teachers with specific teaching positions (rather than training people who may never actually teach). They also argue that, by providing mentors, the on-the-job training avoids the pitfall of sending new teachers into classrooms without support and thus works to increase teacher retention. Opponents, on the other hand, argue against on-the-job training, noting that, by definition, it places underprepared teachers in classrooms. In addition, opponents also argue that candidates immersed in poorly performing schools are not exposed to effective teaching. Further, they argue, on-the-job training serves to perpetuate the achievement gap between minority and majority students, high- and low-poverty students, and native English speakers and English learners, given that alternative certification teachers tend to be placed in classrooms with the neediest students. As with other debates about alternative certification, both positions contain a kernel of truth.

In all but one of our programs, TEI in Elk Grove, participants serve as teacher of record during part or all of their certification program.¹⁴ In each case, program directors cited mentoring by an experienced teacher as a key component of the school-based training. When we met with indi-

vidual teachers, we found that influences beyond the scope of the formal alternative certification program can enhance or impede program efforts. In particular, school contexts, the backgrounds of the alternative certification teachers, and the quality of the mentoring affected the on-the-job training offered to new teachers.

School context

Because alternative certification participants learn on the job, they learn not only from their program but from their colleagues and administrators as well. Both the formal and informal aspects of schools influence their development. Formally, as members of a school community, alternative certification teachers participate in professional development programs provided by the school or district. The teaching strategies introduced or reinforced through these formal learning opportunities often focus on a particular curriculum or instructional approach adopted by a district or school, such as Readers' or Writers' Workshops in many New York City Schools or the Open Court reading series in Elk Grove Unified School District. Because formal school- or district-based professional development and the alternative certification programs operate independently of one another, the extent to which their educational philosophies and teaching strategies correspond is most often coincidental rather than a consequence of design. As a result, the theories of teaching and learning and the instructional strategies that alternative certification participants learn from the different sources may cohere or, perhaps more importantly, may conflict.

More opportunity for coherence between school-based professional development and the alternative certification training exists in programs sponsored and created by districts, which by design focus both their professional development and alternative certification training on preparing graduates to work with the district curricula. Thus, what participants learn in their alternative certification program and what they learn in their school-based professional development reinforce each other. Although beneficial in its coherence, this focused approach is limiting to teachers who may some day work in another district or with a different curriculum.

For alternative certification programs that serve multiple districts, such coordination is not feasible. For example, because NC TEACH is located at 13 host institutions across the state, the program adapts more to regional educational needs, but not necessarily to those of the local districts. The Texas Region XIII program has participants working in 44 districts, making it impossible for the program to address particular district

curricula. Further complicating matters, the districts it serves range from highly traditional to more reform-oriented districts. As a result, different sources of training do, at times, present different approaches to instruction. In the best case, the lessons from the different providers reinforce each other; in the worst case, they contradict each other. We have seen examples of both. One participant in the Texas Region XIII program said that she does not try to mix what she learns from her alternative certification program and her district's professional development academy, noting, "It will get confusing."

Having control over participants' learning and ensuring coherence not only create problems for larger alternative certification programs or programs serving multiple districts, doing so also can be problematic for programs serving individual districts. The case of MMTEP—our smallest case study program and a program serving a single district—illustrates how each participant may learn completely different instructional strategies as a result of his or her school placement. The Milwaukee Public Schools operate in a highly decentralized environment, with each school determining its core philosophy or approach to education. As members of unique school communities, MMTEP participants learn quite different ways to teach. We observed one teacher in a direct instruction school teach literacy by following a script. In contrast, another participant in a Paideia school—a model that emphasizes active learning through didactic instruction, coaching of academic skills, and seminar discussion—worked with literature circles. Although both attended the same certification program, what the participants learned about teaching reading was based to a great degree on their schools' philosophies and curricular adoptions, not on their formal certification classes.

The informal school context also plays a large role in participants' development. The school environments in which alternative certification participants work vary to such a great extent that it is difficult to determine whether on-the-job learning is advantageous or not. Some participants experience rich and supportive environments in which they thrive and learn their new profession; others experience chaotic and unsupportive environments that not only prevent them from learning how to teach, but also drive them from the profession. Two schools in the same urban district provide contrasting examples of the different environments where alternative certification teachers work. Both schools served highly diverse student populations and high percentages of low-achieving students. Although the schools had similar student bodies, the workplace conditions of the two could not have been more different.

In one school, teachers received support for their instruction as well as their classroom management. The school assigns a mentor to work with

all the new teachers, including those in the alternative certification program. The mentor—a highly successful, experienced teacher—met weekly with all new teachers as a group to share resources and materials, instructional strategies, and curriculum guidance. The school established a preparation period specifically for this meeting so the teachers did not have to spend time after school, nor did they have to sacrifice their regular preparation time. The mentor also observed the teachers conducting lessons and provided them with individualized support to meet their specific needs. Although serving a challenging population, a clear school-wide discipline policy and support for enforcing it by the administrators assisted teachers with their classroom management. The tone set in the school kept discipline problems to a minimum, enabling teachers to focus primarily on instruction. Discipline problems still arose in the new teachers' classrooms, but they could call for assistance from the administrators. Teachers in this school reported feeling supported and having the help they needed to effectively run their classrooms and provide instruction.

In contrast, the other school provided neither classroom management nor instructional support. Although all new teachers in the district are supposed to be assigned a mentor, new teachers in this school were not. Little school-wide professional community existed, and new teachers had to rely on one another for instructional and moral support rather than on their more experienced colleagues. The school also experienced extreme discipline problems. Students roamed the hallways during class periods, teachers could be heard yelling at students, and fights among students occurred regularly. The new teachers had nowhere to go for help; administrators reprimanded new teachers who asked for assistance with unruly students. The new teachers in this school focused on merely surviving each day, not on learning the teaching profession.

Alternative certification may be based on the theory of on-the-job training, but we found little attention paid at the program level to where that training should occur. As the examples above demonstrate, alternative certification teachers may be placed in a school with a supportive administration and a professional learning community in which they can grow and develop into strong professionals. Or they may be placed in a school so dysfunctional that they are driven from teaching before they even complete their programs. They may be assigned to a grade level team that works together, sharing materials and ideas for lessons. Or, they may be isolated from the rest of the staff, finding themselves with no colleagues from whom to learn. On-the-job training in and of itself thus does not sufficiently guarantee a strong teacher development program. On-the-job

training works best when the teaching assignment occurs in a supportive environment geared toward teacher learning.

Participants' career trajectories.

Thus far, we have discussed the impact of the school-based formal learning opportunities and the general school context on the effectiveness of on-the-job training. Another factor, the alternative certification teachers' backgrounds, also shapes participants' development. As noted earlier, alternative certification teachers come to their programs with different backgrounds and knowledge, instructional skills, previous classroom experiences, and intentions. Once in their alternative certification programs, there is an interaction between teachers' backgrounds, the program supports they receive, and the environments where they teach.

Two teachers, Ms. H. and Mrs. W., illustrate how two teachers can have different learning experiences because of their own backgrounds, even when they are in the same alternative certification program and work in the same school. Ms. H. and Mrs. W. both work at the same urban elementary school, serving a primarily minority population of low-performing students. Ms. H. is 23 years old, quite young compared with other teachers in her program. She initially had difficulty gaining admission to the program, but was admitted when the program lowered the required grade point average. Ms. H.'s mother, herself a teacher, encouraged her to pursue the profession. Ms. H. worked in a variety of daycare centers and youth programs as she grew up. She also had experience in this school, serving for 2 years as a teacher's aide for a teacher reputed to be among the best in the school. In fact, when this teacher fell ill, Ms. H. ran the classroom by herself for 2 months. When Ms. H. finally took the helm of her own first grade classroom, she had the confidence of an experienced teacher, the support of the other teachers with whom she previously worked, and the support of her mother. She was energetic, eager to learn, and, importantly, not overwhelmed by her daily classroom experiences. Consequently, she was able to attend her evening credentialing classes ready to learn and to apply her new knowledge to her classroom the next day.

In contrast, Mrs. W. had no trouble gaining admission to the program. She was highly educated, having already earned an advanced degree, and having worked as a highly regarded business professional. In addition, Mrs. W. was deeply committed to the city and the community, as demonstrated by her volunteer work in the minority community in which she lived. But her experiences in the school were less than positive. As a

foreign language teacher, Mrs. W. did not have her own classroom; and the principal used her to provide other teachers with release time. As a result, she pushed classroom materials from room to room on a cart. The school never assigned her a formal mentor, even though mentors were considered a key component of her alternative certification program; and she had trouble finding an informal mentor. Admitting to not knowing how to teach her subject or how to manage a classroom, she was isolated from other teachers and thus had no one from whom to learn. She found herself exhausted at the end of the day; and although she went to her credentialing classes at night, she was discouraged and enervated and had trouble applying what she learned to her situation.

Ms. H. and Mrs. W. came from quite different backgrounds and encountered different professional learning environments in the same school. Ms. H. was young with less formal education herself, but her prior classroom experiences, her connections to the other teachers in her school, and her family support gave her the tools she needed to run a successful classroom and to benefit from her coursework. Mrs. W. was unable to find peer support in her school, had no prior experiences from which to draw, and struggled in her daily teaching activities.

As this case suggests, alternative certification participants take many paths into the teaching profession. Such varied paths necessitate a closer match among teachers' experiences and their strengths and weaknesses and the program supports and their school placements. On-the-job training may work in some teachers' favor, but we have seen little attention paid to the widespread variation in experience and preparation among teachers and the on-the-job training they receive.

Quality mentoring.

Complementing the on-the-job training, all seven programs provide mentoring to support their participants. Proponents of alternative certification consider mentoring to be a key component of on-the-job training and point to its power to teach alternative route teachers real-world skills. Opponents agree with the importance of mentoring for all new teachers, but do not view it as a substitute for preservice training and clinical practice. Once again, both positions have some merit.

As the examples of Ms. H. and Mrs. W. suggest, the presence or absence of mentoring can make a good situation better or a bad situation worse. But mentoring, like other training components, varies considerably across and within programs, not just in terms of the amount of mentoring provided, but in its quality as well. Some programs, like the Texas Region XIII program, provide training for mentors, but most programs

do not. Some programs, like MMTEP, have full-time mentors, whereas others rely on volunteers who already have full-time jobs as classroom teachers. In addition, the content of the mentoring varies. Some mentors see their jobs as primarily providing emotional support; others keep the focus on instructional strategies. Only a few programs have a set curriculum for mentors to follow. With a few exceptions, we found a lack of quality control over mentors' work. As a result, some alternative certification teachers received excellent mentoring, but others did not.

Additionally, in some instances, alternative certification participants had two mentors, one from the alternative certification program and one from the school or district provided through an induction program. Again, learning from two sources can be reinforcing or contradictory. In the New York City program, for example, Fellows are assigned both university-based and school-based mentors. University faculty expressed concerns that the different mentors might provide conflicting advice. The degree of coherence may reflect the amount of training and supervision provided to either set of mentors.

Our observations of and interviews with teachers across the seven programs clearly indicated that when an alternative certification teacher with a solid set of teaching skills and a reasonable teaching assignment receives quality mentoring, the participant can succeed. However, when the quality of the mentoring is lacking, teaching skills are weak, and the teaching assignment is difficult, the alternative certification teacher struggles.

SUMMARY: A NEW UNDERSTANDING OF PROGRAM CHARACTERISTICS

Like alternative certification teachers, alternative certification programs defy simplistic characterizations. As our examination of the seven programs illustrates, both opponents and proponents of alternative certification often overstate their arguments. A review of the design of our seven case study programs suggests that nearly all programs include some pre-service clinical training, although the length and the quality of that training vary. Some programs may be described as fast track into the classroom, but most programs have certification requirements that are at least as lengthy as traditional certification. Alternative certification coursework varies, both across and within programs, in its emphasis on subject-matter content, pedagogy, classroom management, and child development. Thus, sometimes the coursework offered by the program is more practical than traditional teacher preparation and sometimes it is not. Although on-the-job training is emphasized, alternative certification pro-

grams frequently offer participants on-the-job training that is unpredictable. Too often, the coursework offered by the program is contradicted by the on-the-job training at the school. Further, because market forces drive the teachers' placements, the alternative certification program rarely guarantees a match between the participants' training needs and the kinds of supports available at the school. Mentoring is a key component of every program we examined; however, programs rarely take care to guarantee the quality and effectiveness of that mentoring support. It is the fortunate alternative certification teacher who enters the classroom with a solid set of teaching skills, a reasonable teaching assignment, and high-quality mentoring.

In this section we have provided data to dispel the myths of alternative certification programs and provide a more complex view of the training provided, implementation challenges, and the influences of the program versus other sources of training. We conclude this paper on alternative certification with implications for research, policy, and practice.

CONCLUSION

The preliminary findings from the seven programs provide insights into the complexity of alternative teacher certification. More importantly, the data from both the programs and their participants suggest that proponents and opponents of alternative certifications often offer arguments that the evidence does not support. Our data revealed the following,

- Alternative certification participants consist of a diverse group of young and older adults, who tend to reflect the gender mix of the teaching profession as a whole and the racial composition of their local labor market.
- Only a small fraction of alternative certification participants are career-changers from the mathematics and science professions.
- Large numbers of alternative certification participants have prior teaching experience or experience working with children in classroom settings.
- Alternative certification programs typically move participants into classrooms quickly, but do not offer full certification more quickly than traditional programs.
- Most programs truncate clinical practice, but consider it to be an important component of what they offer participants. Coursework varies, sometimes mirroring that of traditional routes, sometimes being purposely designed for alternative route teachers or to meet the needs of a specific district.

- The value of on-the-job training depends on the participant's background and the school context. Programs generally do not take steps to ensure participants an appropriate placement.
- Although mentoring is an important component of all programs, most programs exert little control over the mentoring that occurs; thus, the quality of the support is unpredictable.

Beyond the obvious conclusion that alternative certification programs and participants defy simplistic characterizations, our research suggests a view of alternative certification that has significant implications for future research and for the improvement of alternative certification programs. Specifically, teacher development in alternative certification appears to be a function of the interaction between the program *as implemented*, the school context in which the on-the-job training occurs, and the career trajectory of the individual participant.

Participants experience the program as implemented, not as planned. Program components espoused by program directors, course catalogs, or other media provide a general sense of the goals of and the ideal training offered by a program, but in practice may not accurately reflect the learning opportunities participants experience. Both the participant's characteristics and the school context may undermine even the best designed program features. Individuals learn from both the formal and the informal contexts of their schools. In most programs, this learning exists beyond the control of the alternative certification program. Formally, they learn from professional development activities, induction programs, adopted curricula, school philosophy, and grade- or department-level meetings. From these sources they can learn (or fail to learn) pedagogical strategies and approaches to instruction, classroom management techniques, school and district policies and procedures, among other things. Informally, they learn from the faculty with whom they interact, the support or lack of support they receive from the administration, the student population, and the general tone of the school. All of these interactions help participants develop either positive or negative perceptions of the teaching profession.

Teachers' own career trajectories can also affect their development. Individuals bring with them not only their formal education but also their motivations for entering the profession, career experience, previous experience (or lack of experience) with children in a classroom setting, and aspirations (or lack thereof) for a long-term career in education. Thus, an individual's background helps shape his/her knowledge base and receptivity to the various sources of learning.

The interaction of all three factors—the program as implemented, the

school context, and each participant's trajectory—shape the learning experiences of individual participants, as demonstrated by the cases of Ms. H. and Mrs. W. Although Ms. H. had a weaker academic background than Mrs. W., Ms. H. found the coursework in her program to be useful, in part, because she had already established a foundation of classroom management skills and basic knowledge of how to teach reading and mathematics. In contrast, despite her graduate degree, commitment to helping build the community, and successful professional career, Mrs. W. found little of her program helpful, in part, because her classroom responsibilities overwhelmed her during the day. Although they worked in the same school, Ms. H. enjoyed strong mentoring support, perhaps because she had worked as a classroom aide in the school; Mrs. W., on the other hand, felt isolated and at a loss for where to get help. In this case, the alternative certification program happened to be well-matched to the trajectory Ms. H. had taken into the teaching profession and a disservice to Mrs. W. and her students.

This elaborated view of alternative certification has important implications for future research. In the original study design, we began with a conceptual framework that emphasized program characteristics (selectivity and intensity). Because we assumed the unit of analysis was the program, that approach made sense. We fully expected to find some combination of participant characteristics (selectivity) and program features (intensity, quality, and duration of training) to define the characteristics of effective programs. Although that framework had its merits, we appear to have underestimated the centrality of the participants' previous teaching experience and background and the school context where the participants work. As our data began to reveal the great variation in how participants experienced program features, we began to question the notion of making comparisons across different alternative certification programs.

This realization led us to appreciate the importance of variations—both across and within programs—in participant backgrounds, school placements, and program characteristics. It also called into question the value of classifying alternative certification at the program level. That is, because the individual's experience of the program components depends a great deal on his or her career trajectory and the school context, the program is not a particularly useful unit of analysis for this type of study. If this conclusion is correct, a better unit of analysis would be a subgroup of individuals from different programs with similar backgrounds and experience who work in the same or similar school settings. We intend to test this hypothesis in the next phase of our research as we analyze our data from classroom observations and other measures of par-

ticipants' skills and knowledge. This more complex view of alternative certification should lead researchers away from simplistic comparisons between alternative and traditional certification programs. Our early findings suggest that failure to disaggregate program participants into subgroups can lead to outcome studies with the wrong unit of analysis and the kind of inconsistent findings that currently dominate the literature.

Recognizing the importance of interactions among the program as implemented, the school context in which the on-the-job training occurs, and the career trajectory of the individual participant also has important implications for improving alternative certification programs. At the very least, these programs can do a better job of producing effective teachers if they pay attention to all three factors. In the 3 years of our study alone, we have noticed significant changes in program structures and designs as program directors work to improve the implementation of programs. However, nearly all programs can benefit from improving how they implement their mentoring component, establish systems to deal with struggling participants, and link their coursework to the on-the-job training participants receive.

In addition, programs should strive to place participants in school settings where they have opportunities to succeed. At the very least, doing so requires a much better understanding of the school settings by program staff and more careful monitoring of each participant's experience in the school. Too often, programs allow market forces to determine the placements of their participants, and teachers find themselves working in conditions that are not conducive to their learning or the academic achievement of their students.

Finally, understanding participants' career trajectories into teaching should help programs tailor the coursework, clinical practice, and school placement that their participants receive. Alternative certification originated from the idea that effective teachers can be developed in multiple ways, but as programs mature they tend to establish a set of requirements and activities while neglecting the individuality of the people they serve. An appreciation and more careful assessment of participants' backgrounds and existing skills and knowledge are likely to contribute to the creation of more tailored programs.

We conclude with the often-heard mantra of researchers, "More research is needed." Clearly, much more needs to be known about alternative certification participants and programs and about how alternative certification can best prepare highly effective teachers. Even before this full body of research becomes available, however, policy makers have enough information to begin a more reasoned and data-driven discus-

sion of alternative certification. Alternative certification participants and programs should not be characterized as all good or all bad. We know enough to move the debate over teacher preparation beyond sweeping generalizations and overstatements to the crafting of policies and programs that put effective teachers in every classroom.

Notes

1 Our survey methodology is elaborated in the appendix.

2 Items measuring pedagogical content knowledge in reading/language arts and mathematics were drawn from a bank of items developed for the Study of Instructional Improvement being conducted by researchers at the University of Michigan (Deborah Ball, David Cohen, and Brian Rowan, principal investigators). See, for example, Hill, Schilling, and Ball (2004); Phelps and Schilling (2004).

3 Hawk and Schmidt's 1989 study concerning North Carolina found no difference; Boser and Wiley's 1988 study of the University of the Tennessee-Knoxville's program found alternative certification program graduates had higher NTE scores.

4 For examples of these assertions see: Abell Foundation (2001); Dahkemper (2001); Feistritz (1998, 2001); Haberman (2004); U.S. Department of Education (2002, 2004).

5 For examples of these assertions see: American Association of Colleges for Teacher Education (1999); Berry (2000, 2001); Darling-Hammond (1994).

6 The *Schools and Staffing Survey, 1999-2000* (NCES, 2002b) asked teachers to identify their type of certificate in their main teaching assignment field. One of the choices was: "Provisional or other type given to persons who are still participating in what the state calls an 'alternative certification program.'" We identify those who marked this choice as a national sample of alternative certification teachers.

7 The Texas Region XIII participant data represent the 2003-04 cohort; the Austin district data are from the 2002-03 school year. We present data for Austin because it is the largest district served by the Region XIII program.

8 Because the New Jersey program has been operating for 10 years and because the district may have hired large numbers of alternative certification teachers, a better comparison would be alternative and traditional route teachers. Unfortunately, those data are not readily available. In addition, given demographic shifts, it would be better to compare the alternative certification teachers with other first-year teachers. Again, those data were not readily available.

9 We considered all colleges identified in one of Barron's top three rankings to be "competitive." These include Barron's ranking of Most Competitive (e.g., Yale University), Highly Competitive (e.g., Bard College), and Very Competitive (e.g., University of California at Davis).

10 Recently, the *Newark Star-Ledger* (Teachers held up by state logjam, 2004) reported more than 1,000 new teachers had experienced delays in receiving their teaching certificates. Presumably, some of these new teachers were in the alternative certification programs.

11 For examples of these assertions see American Association of Colleges for Teacher Education (1999); Baines, McDowell, and Foulk (2001); Darling-Hammond (1994).

12 For examples of these assertions, see Abell Foundation (2001); Hess (2001); National Center for Alternative Certification (2004); U.S. Department of Education (2004).

13 New Jersey is piloting a program in which program participants would receive 40 hours of preservice instruction, compared with the current program in which participants begin as teachers of record before receiving any training in how to teach.

14 In some cases, TEI participants became teachers of record before completing their program.

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APPENDIX: SURVEY METHODS

We administered the survey to participants in each of the seven programs before the program started (fall 2003) and at the end of their first year of teaching (spring 2004). In programs with less than 500 participants (Texas Region XIII, Elk Grove's TEI, MMTEP, and NC TEACH), we surveyed the population of participants. In the NYC Teaching Fellows Program, we surveyed a representative sample of 350 elementary and special education participants. In New Jersey, we surveyed the population of participants from three of the 32 regional training centers. In Teach for America, we surveyed a representative sample of participants from one summer training institute.

The number of program participants was variable, with some participants dropping out, and others joining mid-year. Exhibit A-1 displays the programs' populations at the time of each survey, as well as the number of participants surveyed, the number who responded, the response rate, and the range of the weights used in the analyses. We assigned participants weights based on their program, placement (general versus special education and elementary versus secondary), and enrollment in the program (whether the participant was enrolled only in the fall, only in the spring, or both). There are multiple weights for each participant, depending on the analysis completed. For example, analyses completed on items appearing in the fall survey only weight participants to the fall population. Demographic items, which appeared on the fall and spring survey, were weighted to the population of participants who were enrolled in either the fall or the spring, or both. The weight range is displayed in Exhibit A-1.

We used mixed survey administration methods to maximize the response rate. In Texas Region XIII, Elk Grove's TEI, MMTEP, and the New Jersey program, we administered the survey during one of their university courses in both fall and spring. In both TFA and NC TEACH, program directors encouraged participants to complete the survey during course time in the fall; but in the spring, the survey was mailed directly to individuals. The survey was mailed to NYC Teaching Fellows directly in both the fall and the spring. We followed-up with nonrespondents with additional survey mailings, reminders sent to both home and school addresses, and personal phone calls.

Exhibit A-1. Survey Participants, Respondents and Weights, by Program

		Fall	Spring
Texas Region XIII	Population	340	236
	Surveyed	340	236
	Responded	285	229
	Response Rate	84 %	97 %
	Weight Range	1.00-2.05	
Teacher Education Institute	Population	76	69
	Surveyed	76	69
	Responded	71	68
	Response Rate	93 %	99 %
	Weight Range	1.00-2.33	
MMTEP	Population	19	17
	Surveyed	19	17
	Responded	17	13
	Response Rate	89 %	76 %
	Weight Range	1.00-1.13	
NC TEACH	Population	478	302
	Surveyed	478	302
	Responded	322	143
	Response Rate	67 %	47 %
	Weight Range	1.04-4.43	
NYC Teaching Fellows	Population	1606	1265
	Surveyed	350	266
	Responded	126	61
	Response Rate	36 %	23 %
	Weight Range	10.58-18.25	
Teach For America	Population	716	639
	Surveyed	350	302
	Responded	206	138
	Response Rate	59 %	46 %
	Weight Range	1.94-5.00	
New Jersey	Population	279	353
	Surveyed	279	353
	Responded	170	217
	Response Rate	61 %	61 %
	Weight Range	1.00-3.50	

After closing the survey, we conducted a nonresponse study of the NYC Fellows Program because of its low response rate. We sampled 10 participants who did not respond to either the fall or spring survey. Nonrespondents were selected to represent a range of schools, based on an official need rating assigned by the New York City Department of Education. Six of the ten sampled teachers responded to the phone survey, which inquired why they did not respond to the survey and also asked a few key questions to determine if the nonrespondents differed systematically from the respondents. Several participants expressed that they

never received the survey or that it was sent to a different address. Others said they did not respond simply because they were very busy. Their answers to the survey questions reflected the patterns exhibited by the respondents. Based on these reports and their responses to survey questions, we feel confident that our sample of NYC Fellows respondents does not differ significantly from the population. However, as with all surveys with low response rates, we recommend that data from the NYC Teaching Fellows Program be interpreted with reservations.

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