

Literature Review of Research on Alternative Certification

Full Text

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Overview

In response to real and anticipated shortages of qualified teachers, state and district policymakers have implemented policies designed to bring new candidates into teaching quickly. One such approach is alternative teacher certification, which offers on-the-job training and supervision to candidates with little or no prior teaching experience (Feistritzer 1994, Hawley 1990).

Though alternative certification programs differ significantly, most offer abbreviated preparation, rapid licensure, and expeditious entry into classrooms (Hawley 1990). They are distinct from traditional teacher education programs in that they give participants access to full-time, paid teaching positions as they complete the requirements for certification. They are also different from emergency certification, which grants individuals temporary permits to teach without requiring additional coursework (Fideler and Haselkorn 1999). In 1983, only eight states offered routes to certification other than the traditional college teacher education program. By 2003, forty-six states and the District of Columbia reported that they had some type of alternative means of certifying teachers. The other four states reported that they are considering or are proposing alternative routes to certification. The alternative routes are numerous—in 2003, states reported a total of 144 routes other than the traditional college teacher education program to attain certification (Feistritzer and Chester 2003).

United States Secretary of Education Rod Paige recently proposed alternative certification as a remedy for the teacher shortage, and the federal government committed

\$41.65 million in the 2003 budget allocations to support programs that allow mid-career candidates to make a transition to teaching positions through alternative certification (Blair 2003, Feistritzer and Chester 2003). Although the shortage is most often cited as the reason for the policy, state and district officials' concerns about the quality of the teaching force contributed as well (Feistritzer 1994). Further, some suggest that alternative certification was a means of breaking the perceived monopoly of teacher education institutions on teacher preparation (Fenstermacher 1990). Recently, experts have observed an evolution from the policy's origins as a "last resort" strategy to fill gaps in the teaching force and replace emergency certification to a widely accepted model of recruitment, training, and certifying (Feistritzer and Chester 2003, p. 1). The public debate about alternative certification is best understood in the context of the two confluent forces that spurred the policy's creation: a highly publicized teacher shortage and growing public concern about teacher quality.

Click here for an [overview](#) of literature on alternative certification research.

The Teacher Shortage

School officials around the nation are facing a much-publicized shortage of qualified teachers. In the late 1990s, experts projected an unprecedented need for new teachers, anticipating that public schools would need to hire 2.2 million teachers during the first decade of the new century (Hussar 1999). Former President Clinton's 2000 pledge to recruit 100,000 teachers by the year 2010 trained the spotlight on the issue, and heightened policy makers' and school officials' sense of urgency. The causes of the shortage are commonly listed as changes in the demographics of the nation's teaching force; a rapidly growing number of public school students; state-level legislation decreasing class size in California and Florida; and 2002 federal legislation calling for "highly qualified" teachers in every classroom. The severity of the shortage varies by teacher race and by geographic region: the proportion of teachers of color is declining more quickly than the proportion of white teachers, and the shortage is more acute in poor urban areas than in wealthy suburban areas. In examining the shortage and its

effects, it is important to consider the roles of licensure, recruitment, and retention of teachers.

An aging workforce

As we entered the 21st century, more than 30 percent of the nation's nearly three million public school teachers were over fifty years old (Young 2003). Their impending retirement led some experts to predict that nearly one-half of the current teaching force would retire from the classroom by 2010 (Kantrowitz and Wingert 2000)—a sobering statistic. Researchers reporting state-level demographics documented trends following the national pattern: Kirby, Berends, and Naftel (1999), for example, reported an increasing average age among teachers in Texas. In 1996, average teacher age in Texas was forty-two, up from thirty-six in 1980. In 1996, more than 40 percent of the teaching force was over forty-five. In Texas, as in the rest of the United States, it looked like large numbers of retiring teachers would create a plethora of open classrooms, generating a need for wholesale hiring.

An increasingly white workforce

Kirby, Berends, and Naftel also learned that, in Texas, African-American teachers are disproportionately older than teachers of other races: in 1996, 29 percent of African-American teachers in Texas were over fifty, while only 24 percent of whites and 16 percent of Hispanics were over fifty. This suggests that, as the demographic bubble moves toward retirement, the proportion of African-American teachers will decline, at least in Texas.

Rong and Preissle (1997) noted that the representation of Asian-Americans in teaching is in similar decline nationwide. These declining proportions are particularly notable because minority representation in the nation's teaching force was already scant.

According to the National Center for Education Statistics (1997), 13.4 percent of American teachers identified themselves as members of minority groups in 1997; (Jorgenson 2000) reports a slightly lower proportion, with only about 9 percent of public school teachers as members of racial or ethnic minorities. He attributes this shortage of

minority teachers to recruitment problems due to poor salaries and working conditions; competency testing (which disqualifies minorities in greater proportions than whites); having themselves had unpleasant educational experiences; and a lack of role models in a mostly white profession.

The prospects for recruiting minority teachers through traditional routes look grim: according to Kirby, Berends, and Naftel, fewer minority than white students receive bachelor's degrees in Education. In 1991, nationwide, 23 percent of bachelor's degrees in Education went to non-white students, and the yield—those with BA's in Education who enter teaching—was lower for minorities than for white teachers. In 1991, 52 percent of white females who earned BA's in Education entered teaching; for black females, the yield was 45 percent; for white males, 39 percent and for black males, 28 percent.

A growing, increasingly racially diverse student population

As the number of teachers in the workforce declines, increasing birth and immigration rates have been rapidly expanding student enrollments, particularly in the southwestern United States. During the 1990s, Nevada's student population grew by 69 percent and Arizona's enrollments increased 37 percent (Young 2003). The population of non-white students is growing faster than the population of white students. Eubanks and Weaver (1999) report that, in 1996, about one-third of public school students were members of racial/ethnic minority groups; the United States Department of Commerce predicts that the proportion will climb to over 50 percent by 2035. As the proportion of minority children in the student population increases, 40 percent of America's schools have no minority teachers at all (National Center for Educational Statistics 1997).

The lack of minority teachers is alarming to those who believe that sharing a common race and cultural background facilitates more productive student teacher relationships (Ladson-Billings 1994). However, Eubanks and Weaver (1999) argue that diversifying the teaching force is about more than matching students' and teachers' race and cultural backgrounds. They assert that the most compelling argument for recruiting more teachers of color is that those teachers "bring diverse life experiences and perspectives that

improve the quality of education for all students.... Although little or no research confirms that a diverse teaching forces improves student outcomes (or that it does not) ample research suggests that understanding the culture and experiences of students helps teachers provide context and meaning to instruction” (p. 453). Therefore, Eubanks and Weaver conclude that a qualified pool of teachers is *necessarily* a diverse pool of teachers.

The shortage is not evenly distributed

Policies, such as California’s Class Size Reduction Act of 1996—which mandated that primary grade classrooms have no more than twenty students—have created localized, subject- or grade-specific shortages in certain areas of the country. The teacher shortage is neither uniform nor evenly distributed. Certain subjects, such as math and science, and geographic areas, such as inner cities and rural communities, bear its brunt. Therefore, simply recruiting more teachers, nationwide, is not the answer; teachers must be found to fill specific jobs in specific contexts. For example, the shortage of special education teachers for urban and rural districts has become especially severe. In the year 2000, 97.5 percent of Great City Schools reported an “immediate need” for special education teachers (Fideler et al. 2000) while the call for teachers in other disciplines was much less urgent. As the U.S. economy has flagged in 2002–2003, many districts were forced to lay off large numbers of teachers, while other districts still scrambled to find teachers to fill specific jobs and schools.

Teacher retention

In an analysis of the teacher shortage, Ingersoll (2001) proposed that efforts to stem the shortage should focus not only on teacher recruitment, but also on retention. Teachers leave the profession at an alarming rate, particularly during their first five years, creating new openings and forcing principals to find, hire, and induct replacements. Nationally, approximately 30 percent of new teachers leave teaching within three years, and 40 to 50 percent leave within five years (Ingersoll and Smith 2003). However, school and district level shortages result not only from teachers leaving the profession altogether, but also from teachers leaving undesirable teaching positions in search of more desirable jobs at

other schools. About half of all teacher turnover is school-to-school migration, which does not result in a net loss of teachers to the profession, but does add to the uneven distribution of the shortage.

Recent research studying teacher turnover in Texas and New York state (Hanushek et al. 2001, Lankford et al. 2002) reveals that teachers in those states who changed schools consistently moved to schools with “higher-achieving, non-minority, non-low income students” (Hanushek et al. 2001, p. 12). Those higher-income, higher-achieving schools tend to be in the suburbs and not in the inner cities. Kirby, Berends, and Naftel (1999) report that districts with high proportions of at-risk students tend to have higher attrition rates in general, particularly among white teachers. This migration pattern creates a revolving door for low-income, high-minority schools, and a glut of applicants for positions in more affluent communities. It exacerbates the localized nature of the shortage, creating high need for teachers in some schools and areas but not in others.

Out-of-field teaching

Ingersoll’s 1999 analysis highlighted the problem of out-of-field teaching, even in filled teaching positions. He found that about a third of all secondary school teachers who teach math do not have either a major or a minor in math, math education, or education in related disciplines like engineering and physics. Numbers are comparable in other subjects: one in four English teachers, and one in five science and social studies teachers do not have a major or minor in their subjects. Furthermore, the proportions of teachers teaching out-of-field are not evenly distributed among schools. Ingersoll concluded, “School poverty levels are clearly related to the amount of out-of-field teaching. That is, in most fields, teachers in high-poverty schools are more likely to be teaching out-of-field than are teachers in more affluent schools” (p. 30). Ingersoll links the problem of out-of-field teaching to attrition, migration, and resources. Teachers who are unhappy in low performing, poorly resourced schools leave their jobs in high numbers; principals have a hard time finding qualified teachers to fill open positions; and principals turn to people who are under-qualified, qualified in other subjects, or substitute teachers. Ingersoll points out that even when subject matter-qualified teachers are available for hire,

principals may choose to assign teachers to teach out-of-field as the most economically efficient option. This assignment strategy allows principals to cover all classes with as few teachers as possible, thus conserving fiscal resources.

In an analysis drawing on Ingersoll's 1999 work, Jerald (2002) points out that classes in high-poverty schools are 77 percent more likely to be assigned to an out-of-field teacher than classes in low-poverty schools. Furthermore, rates of out-of-field teaching got worse between 1993–94 and 1999–2000, and the biggest increases were in high-poverty schools. Rates of out-of-field teaching are worse in middle schools than in high schools, and more acute in some states than in others. In other words, the problem of out-of-field teaching is not uniform across the country or even within districts.

Unlicensed teachers

As states, districts, and individual principals have struggled to fill empty teaching positions, many have turned to unlicensed teachers. Eubanks and Weaver (1999) report that, as of 1996, over 27 percent of newly hired teachers had a temporary license, an emergency license, or no license at all. Eubanks and Weaver report that, in 1995, 77 percent of the nation's thirty-nine largest school districts, serving high-poverty and high-minority students, hired non-certified teachers to fill vacancies. Given that shortages tend to be more acute in high-poverty, high-minority schools, it is no surprise that those districts are more likely to rely on unlicensed teachers than are higher-income districts serving more white students. Huang, Yi, and Haycock (2002) report that, in 2000, 23 percent of California teachers in high-poverty districts were teaching without licenses, compared to 13 percent elsewhere in the state. In New York 17 percent of teachers in high-poverty districts had certification waivers, as compared to 4 percent elsewhere.

As the *No Child Left Behind Act* mandates a "highly qualified" teacher in every core subject classroom by 2005–2006, and many states define "highly qualified" as certified, leaders of schools and districts with high numbers of unlicensed teachers will have to act. They must either replace the uncertified teachers with certified ones—a daunting task for leaders of hard to staff schools—or encourage uncertified teachers to pursue certification

while they are teaching. Given the time commitment and expense of traditional teacher certification, it seems likely that these unlicensed teachers will turn to alternative certification programs.

Teacher quality

As questions about how best to fill the high numbers of open teaching positions have mounted over the past two decades, so have related concerns about the quality of the teachers hired to fill those positions. *A Nation at Risk: The Imperative for Educational Reform* (National Commission on Excellence in Education 1983) identified a “rising tide of mediocrity” in American schools and focused the public’s attention on a perceived decline in the quality of public education. *A Nation Prepared: Teachers for the 21st Century* (Carnegie Forum on Education and the Economy 1986) responded by explicitly addressing the issue of teacher quality, outlining an ambitious, comprehensive plan for improving the teaching profession and, thus, the quality of the nation’s teachers. The Carnegie Forum called for the creation of a National Board of Professional Teaching Standards, codification of the knowledge and skills necessary for effective teaching, and a more professionalized environment in which teachers could work.

In April, 1998, fears about declining teacher quality came sharply into focus when only 51 percent of test-takers passed both the reading and writing portions of the Massachusetts Communications and Literacy Skills test. These results received considerable local and national press coverage, causing policymakers and pundits to wonder whether a focus on attracting more intelligent, high-achieving candidates to teaching might improve the quality of its ranks (Eubanks and Weaver 1999).

Meanwhile, in the context of the standards movement and increased school- and teacher-level accountability, Sanders and Rivers (1996) released the results of their “value-added” research. This research, based on statistical modeling, demonstrates that the teacher is the single most important factor in student achievement—more important than the curriculum, students’ socio-economic status, or the other students in the room. One good teacher can have lasting positive impact, while the negative effect of one bad

teacher can also stick with a child for years. In a widely read article, “Good Teaching Matters: How Well-qualified Teachers Can Close the Gap,” Haycock (1998) cited similar research completed by school districts in Boston, Massachusetts, Dallas, Texas, Alabama, and North Carolina, reinforcing the notion that teacher effectiveness relates to real gains or losses in student achievement

While few debate the importance of staffing U.S. classrooms with “effective” teachers, scholars disagree about what causes some teachers to be more effective than others: is it subject matter knowledge, innate intelligence, pedagogical knowledge, or experience? These questions are at the center of the debate about whether alternative teacher training, certification, and licensure can address the teacher shortage while simultaneously maintaining high standards for teacher quality.

Click [here](#) for a review of literature on alternative certification and the [teacher shortage](#).

The Debate over Certification and Licensure

The increased attention to the quality of the teaching force and the pressure from the teacher shortage have generated questions about how to best recruit and prepare new teachers. For example, by what standard is a “quality” teacher defined? Are good teachers born or made? If they are made, what is the best way to prepare a teacher to be effective in the classroom? Is effective teaching more dependent on pedagogical skill or on subject matter competency?

Experts have proposed various strategies for addressing the shortage and quality concerns. These proposals are manifestations of particular beliefs about what makes teachers effective, and who (what institution or organization) is best suited to the task of screening and preparing them. Cochran-Smith and Fries (2001) recommend that in order to understand the politics of teacher education and the complexities of competing agendas about alternative certification, we must recognize and include participants’ underlying ideals, ideologies, and values in the discourse, in relation to the “evidence” they present about teacher quality. Cochran-Smith and Fries’ point underscores the role of research

evidence in the alternative certification debate—it is often interpreted from multiple perspectives, and results in conflicting implications for policymakers and practitioners.

Participants in the public and scholarly debate about alternative certification usually identify with one of two positions, often characterized in opposition to each other: a market-based, or anti-regulatory approach, and advocacy for strict regulation of entrants to teaching and their preparation. Those who advocate for more regulations propose higher standards of entry, extensive pre-service preparation, and performance standards as mechanisms for improving the quality and status of the profession. The proponents of market-based reform argue that regulations serve as barriers to entry for potential teachers, and do not serve as effective quality control mechanisms. They believe that a greater reliance on market forces eventually will improve the quality of the teaching cohort. But what, specifically, is the logic of these positions, and what aspects of the shortage and the discussion about how to procure quality teachers do they address? We will examine those positions here in an effort to understand their underlying assumptions and policy implications.

Regulation advocates

Those who advocate for increased regulations are primarily responding to concerns about the quality of United States teachers. While they acknowledge the concerns of the teacher shortage, this approach maintains that improving teacher quality by increasing standards of accreditation, licensing, and certification will, in turn, promote a profession that is more appealing to highly-qualified candidates, who will eventually enter teaching, thus increasing the supply. Experts propose that raising entry standards to the profession will ensure a quality teaching force, which will raise both the profession and the public's regard for it, forcing policymakers to raise teacher salaries and promoting higher status for the profession (Darling-Hammond, Wise, and Klein 1999).

In the well-known report, *What Matters Most: Teaching for America's Future*, The National Commission on Teaching and America's Future (NCTAF 1996) set forth this agenda. NCTAF's proposals focused on three areas: rigorous standards for teacher

preparation programs developed by a central organization, the National Commission on the Accreditation of Teacher Education (NCATE); performance standards for beginning teacher licensing through the Interstate new Teacher Assessment and Support Consortium (INTASC); and certification for master teachers through the National Board for Professional Teaching Standards (Darling-Hammond and Sclan 1996).

In its follow-up report, *Doing What Matters Most: Teaching for America's Future*, NCTAF (1997) recommended standards for teachers linked to standards for students; reinventing teacher preparation and professional development; overhauling teacher recruitment to put a qualified teacher in every classroom; and encouraging and rewarding teachers' knowledge and skills. If certification standards were reformed, clarifying the knowledge and skills a good teacher must possess, licenses would signal well-prepared teaching candidates to the market. In other words, quality teachers can be trained, using specific standards of good teaching—indeed, possessing pedagogical knowledge is paramount to quality teaching, and ensuring that all teachers are well-prepared depends upon conveying this core of identified pedagogical knowledge and skills through licensing.

Darling-Hammond and Youngs (2002) argue against federal support of alternative certification as a means for improving the quality of the teaching force, instead emphasizing the importance of “staying the course” of regulation: “(M)eeting the highly qualified teacher challenge will require states to stay the course with respect to the gains they have already made, rather than to reverse course on the basis of a fictionalized account of what research says about what effective teachers know and how they come to know it” (p. 23).

Market advocates

Ballou and Podgursky (1998) argue that in proposing stricter certification regulation NCTAF has “misdiagnosed the problem” of teacher recruitment and preparation (p. 17). They warn that NCTAF's proposals will restrict the options of prospective teachers and school boards with licensing standards that will raise barriers to entry, and discourage

mid-career candidates with practical experience and maturity from entering teaching. These market advocates focus on the problem of the shortage, and are primarily concerned with promoting greater access to non-traditional teaching candidates, such as mid-career candidates, whom they contend will improve the quality of the teaching force.

Hess (2001) challenges the premises of the argument for a regulatory approach to certification by identifying and dismissing three assumptions about certification—first, that the training one receives while getting certified is so useful that uncertified people will not be able to perform adequately; second, certification weeds out unsuitable people and keeps them out of schools; and third, certification helps to make teaching more professional and thereby boosts its allure. Because each of these assumptions is “flawed,” Hess argues for an “alternative approach” to certification altogether. He proposes three regulatory guidelines teaching candidates must meet before they can be considered for employment: a B.A. or B.S. degree from a recognized college or university; passing a test of competency in knowledge or skills “essential to what they seek to teach” (p. 21); and criminal background checks. Hess concludes that, rather than relying on the traditional model of measuring teachers’ pre-service preparation it is better to recognize the importance of in-the-field learning and continue training teachers while they do their work. Other research also questions the value of conventional certification altogether (Walsh 2001).

While Hess dismisses alternative certification as too bound by regulations and requirements, Ruenzel (2002) goes further in critiquing alternative certification programs. He contends that they are, in fact, “torturous routes” to certification that are as “cumbersome” as the programs traditionally-certified teachers complete (p. 4). He argues that alternative certification, though touted as a solution to the over-regulation of certification, has itself become “bureaucratic and unnecessarily restrictive” and has not yet realized the promise of being an alternative. He calls for relaxing certification requirements altogether, for both traditionally- and alternatively-certified teachers, a solution that, according to Ruenzel, would “go a long way” towards stemming the teacher shortage (p. 14).

The manifesto, *The Teachers We Need and How to Get More of Them*, offers further, resounding critique of the regulatory approach (Thomas B. Fordham Foundation 1999). The authors argue that there is “no persuasive evidence” that the regulatory approach has succeeded in raising teacher quality, and that the more logical way of increasing teacher quality is to “widen the entryway” to teaching, deregulate the process, and hold the individuals—rather than the institutions—responsible for the results. Measuring the results would occur by judging teacher effectiveness in terms of the value that a teacher adds to a student’s educational experience.

This approach assumes that those who hire and evaluate teachers should be responsible for ensuring their quality, rather than another institution (such as a university teacher training program), and quality should be judged on the basis of student achievement. Advocates of this approach argue that state teacher licensing is an inappropriate substitute for local accountability (Hess 2001). They maintain that schools and individual teachers should be held accountable for student performance, and that as local accountability improves, state licensure will become moot: “Holding schools accountable for student achievement strengthens the incentive for school administrators to hire wisely, putting to good use the advantage they enjoy over licensing agencies in evaluating prospective teachers” (p. 68). Further, market advocates believe that hiring decisions must rest in the hands of principals, who have the strongest incentive for ensuring that the teachers they hire are well-equipped to teach (Hess 2001).

Fraser (2001) argues that the public has lost confidence in the traditional routes to certification (undergraduate or graduate programs on a college campus) to produce the best teachers. In the past few years, public dissatisfaction has increased because of several factors: Leaders within the education enterprise have demanded better preparation while simultaneously, increased state testing of teachers has resulted in “appalling” results, causing the public to lose faith in teachers’ abilities (p. 3). Fraser proposes decoupling teacher education from certification, and those in the government should leave the business of regulating teacher-preparation programs: “Let the schools and

school districts hire whom they will, certify whom they will. Our role as teacher-educators will be to provide programs with such clear and obvious value that the districts will hire our graduates in preference to other candidates” (p. 3). Fraser proposes teacher educators use a more market-based approach—that is, if they succeed in preparing teachers well, then schools and districts will clamor for their teachers who will be deemed best prepared. In return, the state must give up any claim to regulate the programs’ curricula: “Let higher education prepare the best possible teachers, according to its own judgments. And let schools hire the best teachers, according to their best judgments. Both, I believe, will thrive on their newfound freedom” (p. 4).

United States Secretary of Education Rod Paige’s 2002 report, *Meeting the Highly Qualified Teachers Challenge*, proposes a new model for teacher preparation and certification, emphasizing high standards for verbal ability and content knowledge, and minimizing other certification requirements: “In sum, a model for tomorrow would be based on the best alternate route programs of today” (U.S. Department of Education 2002, p. 19).

Click here for a review of literature on [the debate over certification and licensure](#).

State and National Alternative Certification Policy

Alternative certification policy, which currently exists in some form in nearly every state in the U.S., allows institutions other than schools of education to create certification programs, as long as those programs provide a minimum standard of screening and training. Feistritzer (1994) observes that the term “alternative certification” has been used to describe a range of programs, and every method of becoming licensed to teach, from emergency certification to “very sophisticated and well-designed programs” (p. 132). Darling-Hammond (1990) argues that the concept of alternatives to traditional state certification leaves a great deal of room for interpretation and varied meaning: alternative ways to meet teacher certification requirements; alternative standards for certification, which might lower standards; and alternatives to state certification itself, which might

result in removing standards entirely. Stoddart and Floden (1995) assert that there are three assumptions underlying alternative certification policy:

1. If one knows a subject, one can teach it.
2. One learns to teach by doing it.
3. Mature individuals with prior work experience make better teachers, and expand and diversify the teaching pool (pp. 9–12).

Feistritzer and Chester (2003) have catalogued states' alternative routes since 1983, and report that similar characteristics in these programs are emerging. In general, many alternative certification programs require that participants have a bachelor's degree; pass a screening process; begin full-time teaching and engage in on-the-job-training; complete education coursework while simultaneously teaching; work with mentor teachers; and meet performance standards.

Experts disagree about the policy and its effects on both the teacher shortage and teacher quality; these disagreements emerge from their beliefs about how to improve teacher quality, and where the authority for defining quality rests. Some warn that alternative certification may provoke a contest between different levels of political control at the local, state, and federal levels (Fenstermacher 1990).

Proponents of alternative certification view certification requirements as barriers to the recruitment of quality candidates, and argue that alternate routes offer opportunities for candidates with strong subject matter knowledge and/or prior professional experience in other fields to improve the quality of the teaching force (Ballou and Podgursky 2000, Hess 2001).

Critics charge that they create a two-tiered system of entry into teaching, one with porous barriers and negligible standards for those who want to just “go teach” and the other with clear standards and rigorous assessments for those who choose traditional training (Haberman, as cited in Stoddart and Floden 1995). How can teaching maintain its

professionalism, they argue, when the final decisions about teacher competence have been stripped away from the state's purview, from national accrediting organizations, and have been dispersed to various vendors (Wise and Darling-Hammond 1991)? Some view the proliferation of alternative certification policy as a trend towards understanding teaching as set apart from prestigious professions, such as law or medicine, and instead associating teaching with trades like carpentry or plumbing, which induct their members by apprenticeship (Stoddart and Floden 1995).

The debate about the pros and cons of alternative certification often obscures the programs' variety and complexity, treating programs as though they are uniform, without considering their particular purpose, context, design, and elements (Dill 1996). In fact, these programs exist in a range of circumstances, with various sponsors, designs, capacities, and results. The variation in programs exists across several dimensions, including but not limited to: the sponsoring agent, size of the program, participants recruited, and what the program offers participants. Some are administered by the states, others by districts. Some states, such as Massachusetts, Missouri, and Texas, focus on potential applicants who are willing to work in high-poverty or low-achieving schools (Blair 2003) while others have no such specific recruitment goals. Connecticut implemented its state-run program in 1986, certifying approximately 200 teachers in various subjects ranging from music to math each year (State of Connecticut Department of Education 2001). In contrast, the Educational Research Service reports that Virginia initiated an alternative certification program in 2002 that certified seventy mid-career professionals in special education (D'Amico 2003).

Looking to the future

Some experts call for innovations in licensure and teacher preparation that move beyond the distinction between alternative and traditional programs. In the early 1990s, Fenstermacher forecast that the future of certification would include an "amalgamation" of alternative and traditional programs, "where career entry is accomplished through some variation on alternative certification, while career advancement depends on forms

of continuing education,” much like traditional teacher certification programs (Fenstermacher 1990, p. 179).

Roach and Cohen (2002) recommend that to improve teacher preparation, policymakers build a system that incorporates multiple routes, all of which are based on clear standards. They view alternative certification programs as an “innovation” that will attract new teachers and promote quality in the teaching force (p. 17). They recommend that policymakers ensure that the standards for both traditional and alternative preparation programs are the same, and that states issue approval guidelines for alternative certification programs much as they do for traditional programs. They recommend that state boards of education and state policymakers should work to support programs through adequate funds, and act as agents in defusing critique of alternative certification programs, focusing instead on their utility.

Some at the American Board for Certification of Teacher Excellence (ABCTE) have proposed replacing state certification requirements with two exams for prospective teachers—one that demonstrates teaching knowledge and another that shows evidence of subject-matter knowledge. At this writing (2003), only Pennsylvania has adopted ABCTE as one route to certification, though twelve more states may approve it in 2004 (Branigan 2003).

However, experts caution that relying on testing for teacher licensure may create significant barriers to prospective teachers of color, who traditionally score lower on standardized tests than their white counterparts (Darling-Hammond and Sclan 1996, Eubanks and Weaver 1999). Eubanks and Weaver point to the Massachusetts teacher tests as an example of the potential impact of high-stakes teacher licensure examinations on potential minority teaching candidates. In April, 1998, only 51 percent of test-takers passed both the reading and writing portions of the Communications and Literacy Skills test. Minority candidates passed the test at significantly lower rates than their white counterparts. Only 17 percent of African-American test-takers and 38 percent of Hispanic test-takers passed both portions.

Gitomer, Latham, and Ziomek (1999) examined state-by-state scores on the Praxis I and II tests commonly used to screen candidates for teacher licensure, asking how the teaching population would change if all states relied on the same passing score, low or high.

The answer is essentially the same for both Praxis I and Praxis II: At the low passing score, passing rate gaps between ethnic groups drop, but so do the average SAT and ACT scores of the people who pass. High passing scores increase ethnic gaps, but significantly increase SAT and ACT scores as well. For example, at the low passing score for Praxis I, 67 percent of the African American candidates would pass, as opposed to just 17 percent at the high score threshold. The corresponding percentages are 95 percent and 52 percent for white candidates. These figures are especially worrisome given the current dearth of minority teachers. However, if every state were to go with the high passing scores on Praxis I, prospective teachers' average math and verbal SAT scores would each climb more than forty points higher than with the low passing scores. Policymakers thus face a vexing decision: They must weigh the relative merits of academic ability and teacher supply, particularly with respect to the supply of minority teaching candidates (**Citation to come**).

Click here for a review of literature on [state and national alternative certification policy](#).

Alternative Certification and Teacher Recruitment: What Is the Evidence?

Given the immense variety among alternative certification programs themselves, and the range of approaches researchers have taken to studying their effectiveness, it is difficult to draw broad, generalized conclusions about the value of the policy. Current research does provide some insight—though limited—on alternative certification's potential for addressing the teacher shortage while maintaining high standards for teacher quality.

General recruitment

Recent research provides some evidence that the prospect of avoiding traditional educational coursework serves as a powerful recruitment incentive for potential teachers. In a survey of young graduates in careers other than teaching, Public Agenda (2000) found that half believe they will change careers at some point; 18 percent said they would “very seriously consider” teaching if the opportunity presented itself (p. 16). The Public Agenda researchers completed further analysis on these 18 percent—the sub-group of respondents they called the “Leaners.” Fifty-five percent of the Leaners said they would be much more likely to consider teaching if they did not have to go back to school in order to enter the profession. This finding indicates that alternative certification programs may lure potential teachers who would not otherwise enter the profession, and is consistent with Peske’s (2003) finding that the “quick route” to teaching offered by such programs is especially attractive to their participants.

Urban schools

Natriello and Zumwalt (1993) also found some evidence that alternative certification programs may be a viable means for recruiting teachers to staff urban schools, which currently bear the brunt of the teacher shortage. In analyzing data drawn from a longitudinal study of New Jersey’s Provisional Teacher Program, they found that alternatively-certified elementary teachers were more likely to report having lived in an urban community (22.7 percent; N=74) than college-prepared elementary teachers (13.6 percent; N=118), suggesting they might be more likely to take jobs in urban schools. Alternate-route English teachers were more likely to report an urban experience than college prepared English teachers (16.6 percent versus 11.1 percent). Alternate-route math teachers were also more likely to report living in an urban area (16.7 percent) than traditionally-prepared math teachers (6.7 percent). Also, alternate route teachers were more likely to be minority than traditionally-prepared teachers (31 percent of alternately-certified; 12 percent of college-prepared) and more likely to speak a second language (35.5 percent of alternatively-certified; 24.4 percent college-prepared). They were also more likely to express a preference for teaching in urban areas. Finally, and perhaps most

importantly, alternatively-certified teachers were more likely than their traditionally-prepared counterparts to report teaching in an urban district in the first years of teaching.

While this indicates that alternative routes may attract people more likely to teach in urban settings, note two things: 1) the study focuses on a small number of subjects, which declines over time; and 2) alternatively-certified teachers move away from urban districts in years three and four in similar proportions as college prepared teachers. This is consistent with a general trend of migration from low-achieving, high-minority urban schools to higher-achieving, whiter suburban schools (Lankford et al. 2002, Murnane et al. 1991). Also, Natriello and Zumwalt's initial analysis indicates that attrition patterns for alternatively-certified teachers are complicated; these teachers may leave teaching in greater numbers than traditionally-prepared teachers, ultimately creating less net yield. Therefore, while it is possible to conclude from this data that alternatively-certified teachers are disproportionately staffing urban schools, it is hard to say whether expanding alternative routes would increase the pipeline of teachers to urban schools. The data may simply indicate that urban schools rely on alternatively-certified teachers because they cannot recruit traditionally-certified teachers.

Haberman, who has written extensively about how to identify "star" teachers for urban schools (1999, p. 757), argues that alternative certification may be the most effective means of recruiting such teachers, based on their characteristics. His research indicates that the most effective teachers for urban schools share some common characteristics: often they did not decide to teach until after college graduation, are between thirty and fifty years old, are parents themselves, and live in urban areas. Haberman argues that because alternative certification programs tend to offer abbreviated training, often cater to career changers, and are typically less expensive than traditional training, they are more likely to appeal to potential teachers who meet his criteria than are traditional programs.

High-need subjects

Shen (1997) also found a higher percentage of teachers with bachelor's degrees in mathematics, science, or engineering among alternatively-certified teachers than among

traditionally-certified teachers. A higher percentage of alternatively-certified teachers (19.2 percent) taught mathematics or science in elementary or secondary schools than did the traditionally-certified teachers (13.5 percent). Shen concluded that alternative certification policy seems to channel more mathematics and science teachers into the public teaching force (Shen 1998).

Career changers

Shen's 1997 data does not indicate that alternative certification programs recruit a large number of career-changers with experience in other fields. Surprisingly, among alternatively-certified teachers, 51 percent entered the programs immediately after college, another 23.8 percent already held teaching or education-related positions, and only 22.2 percent came from occupations other than education. Ruenzel (2002), however, claims that alternative certification does serve a lot of mid-career entrants to teaching in California; he reports that 60 percent of its alternative certification candidates have come to teaching from other careers. Shen's 1997 findings suggest that alternative certification policy allowed many recent college graduates to circumvent the costs—both real and opportunity—involved in a more traditional certification process. Shen (1997) also found that traditionally-certified teachers had higher educational attainment than did alternatively-certified teachers (contradicting the popular assertion that alternative certification programs attract individuals with more education).

Click here for a review of literature on alternative certification and [teacher recruitment](#).

Male and minority teachers

Kirby, Berends, and Naftel (1999) analyzed the supply and demand patterns of minority teachers in Texas from 1979 to 1996. The authors divided schools into three categories, based on the incomes of the families the schools served. According to their analysis, 37 percent of Texas teachers teach in higher-income schools; 33 percent teach in medium-income schools, and 30 percent teach in low-income schools. However, minority teachers teach disproportionately in low-income districts, in which they account for more than 50 percent of the teaching force. In greater-wealth districts, minority teachers account for

only 5 percent of the teaching force. The authors infer that minority teachers are more willing to teach in districts serving low-income students, thus lending even greater urgency to the push for minority teacher recruitment.

There is some evidence that alternative certification programs more successfully recruit minority teachers than do traditional certification programs. In the late 1980s and early 1990s, alternative certification began to garner attention as a potentially viable tool for diversifying the teaching profession. A study of teacher recruitment in Texas from the late 1980s showed that over half of alternative certification candidates in the state were minorities (Sindelar and Marks 1993). Schulman (1989) and Hawley (1990) also found that more males, people over twenty-five, minorities, and people who majored in math, science, and foreign languages participate in alternative certification programs than in traditional programs.

Ruenzel (2002) cites more recent data from the California Commission on Teacher Credentialing reporting that alternative certification programs in the state recruit high proportions of both men and minorities. “Ethnic minorities compose 46 percent of those entering alternative programs; 27 percent are males who want to teach in elementary schools—three times the normal rate” (no page number, electronic citation).

Shen (1997) also found evidence of alternative certification’s success in diversifying the teaching force. He compared the characteristics of traditionally-certified and alternatively-certified teachers by analyzing data from a nationally representative sample of over 14,000 public school teachers constructed from the national Schools and Staffing Survey of 1993–1994. Of this sample, 7.5 percent had been certified through alternative routes. Shen found little difference between traditionally- and alternatively-certified teachers in their gender composition. However, he did find that alternative certification policy allowed for the recruitment of a higher percentage of minority teachers.

Shen (1997) also found that alternatively-certified teachers were more likely to teach in high minority schools than their traditionally-certified counterparts. A higher percentage

of alternatively-certified teachers (37.8 percent) than traditionally-certified teachers (26.8 percent) worked in schools where 50–100 percent of the students were minority. In a subsequent analysis, Shen (1998) found that minority teachers were more likely than white teachers to staff high minority schools, and alternatively-certified minority teachers were even more likely to do so than their traditionally-certified counterparts: 67 percent of traditionally-certified minority teachers and 89 percent of alternatively-certified minority teachers work in schools where minority students make up 50 to 100 percent of the student body. . . . Thus, alternative certification programs recruit a significantly higher percentage of minority teachers into schools where minority students are the majority. He also found that alternative certification attracts a higher percentage of white teachers who are younger than thirty years old (36 percent) but a higher percentage of minority teachers who are between forty and forty-nine years of age (35 percent).

Darling-Hammond and Berry (1999) tout para-professional education programs as a viable option for recruiting and training new teachers of color. Para-educators represent a broad pool; there are nearly 500,000 of them nationwide. A 1995 Recruiting New Teachers study (Fideler and Haselkorn 1996) surveyed 149 para-professional training programs and found that 67 percent of nearly 9,000 participants were prospective teachers of color. This is almost as many as the national yield of minority B.A.s in education. Three quarters of such programs serve urban districts, which are traditionally hard to staff (Darling-Hammond and Berry 1999).

Clewell and Villegas (1999) describe how twenty-seven selected sites in the Pathways to Teaching Careers Program are increasing the number of certified teachers of color in urban districts. DeWitt Wallace-Readers Digest Fund launched Pathways in 1989, targeting four populations of potential teachers: para-professionals and emergency-certified teachers in urban districts; middle school students; returning peace corps volunteers; and traditional teacher education candidates. The goal was to increase the number of well-prepared teachers for urban schools, with the priority being increasing the number of teachers of color. These programs use nontraditional selection criteria, such as recommendations from principals and experienced teachers as well as other members of

the community; participation in group interviews; expressed commitment to teaching in urban settings; maturity; and skills in a second language. The program also provided academic support for participants and provided explicit instruction in test-taking skills. These twenty-seven sites exceeded recruitment goals by 20 percent, with 86 percent of the candidates being teachers of color. The overall program completion rate was 64 percent, as some candidates dropped out and others did not meet program requirements. Subsequent principal evaluations rated Pathways teachers as competent, suggesting that the model is an effective means for recruiting and training teachers, particularly teachers of color.

Click here for a review of literature on recruiting [male and minority teachers](#).

Alternative Certification and Teacher Retention: What Is the Evidence?

As policymakers and practitioners consider alternative certification's prospects for addressing the shortage of qualified teachers, it is important to attend to the issue of retention, asking not only if such programs are recruiting new teachers, but also if those teachers stay in the profession.

There is some evidence that alternatively-certified teachers are more likely to leave teaching after only a few years than traditionally-certified teachers. A study of new teacher retention in Connecticut in 1998–1999 (Fisk et al. 2001) found that teachers with “deficiencies in their certification” as well as alternatively-certified teachers left during the pre-tenure stage at nearly double the rates of fully certified teachers. Nearly twice as many math and science teachers (one in four) left during the pre-tenure stage, and few returned to teaching after an absence. Also, the attrition rate for graduates of Connecticut's alternative certification program is higher than that for those who were certified in traditional programs, suggesting that the “rate of return” for sending individuals into the labor market through alternative certification may be less than through traditional certification. The authors further report that the attrition rate for minorities during the first two years was about two-and-one-half times higher than the attrition rate for non-minorities.

In his analysis of a large-scale, national data set, Shen (1997) found a difference between traditionally- and alternatively-certified teachers in their plans to remain in teaching. The differences occurred primarily in the number in each category who indicated that they would teach “until I am eligible for retirement” or responded as “undecided at this time.” A lower percentage of alternatively-certified teachers (19.7 percent) than traditionally-certified teachers (22.7 percent) chose “until I am eligible for retirement,” but a higher percentage of alternatively-certified teachers (26 percent) than traditionally-certified teachers (22.3 percent) responded “undecided at this time.” Shen maintains that these findings question alternatively-certified teachers’ intention to treat teaching as a lifelong career, though it is worth noting that the differences in percentages are small.

In a subsequent analysis, Shen (2003) used Baccalaureate and Beyond data from 1993–1997 to examine the attrition patterns of teachers who were within five years of college graduation (the sample excludes mid-career entrants). He found that 34 percent of teachers in this sample left teaching within five academic years of teaching. He compared teachers with preparation to those with no training, and found that those with no training had 335 percent higher hazard rates than those with preparation—meaning that they were more than three times as likely to leave the profession during any given year. Shen concludes “the data unequivocally demonstrate that those who “prepared, taught” are much more likely to stay in teaching than those who “taught, no training” (p. 11). Also, teachers who participate in training that includes an induction program are significantly more likely to stay in teaching than those whose training is less comprehensive. Shen’s data further indicate that those who were certified to teach were much more likely to stay in teaching than those who were not ever certified.

Darling-Hammond and Berry (1999) present retention rates and social costs (teacher preparation, recruitment, induction, and teacher replacement costs due to attrition) by level of preparation. They argue that teachers with the most preparation—a B.A. in subject field and M.A. in preparation—cost the system the least and are the most likely to stay in teaching. Teachers who train in summer-long alternative programs cost the system

more than 35 percent more than their better trained counterparts, as they require more induction and training and are less than half as likely to stay.

While these studies are designed with the assumption that long-term retention of teachers is the most desirable outcome, another study (Peske et al. 2001) argued that some entrants who pursue short-term careers in teaching are committed to being quality teachers, though not to the profession for the long-term. Alternative routes to certification may allow these teachers to offer short-term, high-quality contributions to the profession.

Click here for a review of literature on alternative certification and [teacher retention](#).

Alternatively Certification and Teacher Quality: What Is the Evidence?

Effect studies of the quality of alternative certification programs rest on a range of assumptions about the causes and indicators of effective teaching. SRI International, in their proposal entitled *Alternative Certification: Design for a National Study* (Humphrey et al. 2002), divide research on the quality of alternatively-certified teachers into four categories: Ratings by observers; teachers' perceptions of self-efficacy; student test scores; and studies of teacher subject matter knowledge. We have borrowed those categories for organizing the literature on alternative certification and teacher quality, summarized below.

Observer ratings

The current body of research on principals' ratings of alternatively- and traditionally-certified teachers is limited, focusing on small studies of localized programs and yielding mixed results. For example, Ovando and Trube (2000) and Jelmberg (1996) conducted small-scale studies implying that alternatively-certified teachers are less effective in the classroom than their traditionally-certified counterparts. In their survey of 134 Texas principals, Ovando and Trube found that principals perceive traditionally-certified teachers to have greater instructional capacity than alternatively-certified teachers, though they sometimes attributed those differences to individual characteristics rather than preparation. Principals reported providing more guidance to alternatively-certified

teachers in the form of professional development, mentoring, and feedback. The authors caution that their data suggest that principals also may scrutinize the performance of alternatively-certified teachers more frequently and intensely than they do the performance of traditionally-certified teachers.

Jelmborg studied a random sample of twenty-nine alternatively- and 107 traditionally-certified teachers in New Hampshire. He surveyed the teachers and their principals, and found that principals rated the traditionally-certified teachers significantly higher in instructional skills and instructional planning, and consistently (but not significantly) higher in four other performance subscales. He also found that traditionally-certified teachers rated their own training and professional coursework as more valuable than did the alternatively-certified teachers. The vast majority (91 percent) of Jelmborg's alternatively-certified respondents taught in secondary schools, while two-thirds of the traditionally-certified teachers taught in elementary schools, opening questions about the usefulness of the comparisons.

Two other small studies, however, led researchers to conclude that there were no appreciable differences between alternatively-certified teachers and their traditionally-certified counterparts. Guyton, Fox, and Sisk (1991) compared the test scores, attitudes, and teaching performance of twenty-three teachers who participated in a fast-track summer certification program and twenty-six traditionally-certified teachers in Georgia. They found the teachers to be similar on almost all measures, though traditionally-certified teachers expressed more positive views of the profession and of their prospects of continuing to teach. Similarly, Miller, McKenna, and McKenna (1998) compared the teaching practices, student achievement, and self-perceptions of efficacy of forty-one traditionally-certified and forty-one alternatively-certified teachers over three years. They found no significant differences between the two cohorts on all three measures, yet caution that because the alternative certification program they studied involved extensive training and supervision, one cannot conclude that untrained teachers will teach as effectively as trained ones.

Click here for a review of literature on alternative certification and [teacher quality](#).

Alternative Certification and Student Achievement: What Is the Evidence

The evidence about how teacher certification relates to student achievement draws on larger, quantitative data sets, and is also conflicting. Using a large, national data set (the National Educational Longitudinal Study of 1988, commonly called NELS:88), Goldhaber and Brewer (2000) investigated whether the type of certification a teacher holds or state licensure requirements are related to 12th grade student achievement test scores in science and math. They found that type of certification is an important determinant of student outcomes, particularly in math. Students whose teachers hold a standard, probationary, or emergency license in math perform better than students whose teachers are not certified or hold private school certification. However, the authors stress that there is no significant difference in the performance of students whose teachers hold standard versus emergency credentials. They assert that these results “strongly contrast with the conventional wisdom...that good teachers only come through conventional routes” (p. 139). Darling-Hammond, Berry, and Thorenson (2001) criticize Goldhaber and Brewer’s methodology, and thus their inference, by pointing out that they rest this claim on data from a very small sub-sample—fifty-eight of the 3,469 teachers in the original sample. Darling-Hammond, Berry, and Thorenson emphasize Goldhaber and Brewer’s finding that certification matters in math achievement, and further claim that studies should examine the degree and character of training teachers receive, rather than their certification status. This is because the training involved in alternate and traditional certification programs varies so greatly.

Sharkey and Goldhaber (2001) used the same data set (NELS:88) in a recent study comparing student math and science test scores of certified and uncertified private school teachers. They found little difference in the student scores of teachers who hold standard certification and those who do not. The authors also found that math and science students whose teachers have in-subject master’s degrees, master’s degrees in education, or higher-level degrees do not significantly outperform students whose teachers are without

those degrees. Sharkey and Goldhaber concluded that granting public schools more discretion to hire uncertified teachers may not negatively affect student achievement.

Laczko-Kerr and Berliner (2002), on the other hand, concluded that teacher certification status does matter. They compared the student achievement of 109 Arizona teachers certified through accredited programs with that of 109 comparable “undercertified” teachers, all 218 of whom taught in low-performing school districts. (The authors use “undercertified” to describe those holding emergency, temporary, or provisional certificates, including Teach For America teachers.) The authors found that the students of certified teachers outperformed the students of undercertified teachers by about two months on the grade level equivalence scale in reading, math, and language arts. Said differently, the authors assert that students of undercertified teachers make about 20 percent less academic growth per year than do the students of regularly certified teachers. The authors found no difference between the student achievement of Teach For America teachers and other undercertified teachers.

However, a study by Raymond, Fletcher, and Luque (2001) indicates that Teach For America teachers are as competent as their non-TFA counterparts. In a comparison of Teach For America teachers and other teachers in the Houston independent school district, the authors found few differences in student achievement. These results are used to defend Teach For America as a viable means of stemming the shortage of qualified teachers. It is important to note that in comparing TFA teachers to non-TFA teachers, the authors did not distinguish between those non-TFA teachers who were traditionally certified and those who were not. Therefore, it is inappropriate to draw conclusions about the relative value of certification from this study.

Subject matter knowledge

There is some evidence that the degree of subject matter knowledge is not significantly different among traditionally- versus alternatively-certified teachers, though their facility in applying that knowledge may differ. Hawk and Schmidt (1989), in a sample of eighteen alternatively-prepared (fast track) and eighteen traditionally-prepared teachers in

North Carolina, found no differences among the two groups in content knowledge exam (NTE) scores; they also found no differences in scores among those who majored in the disciplines tested and those who did not. However, the traditionally-prepared teachers consistently received higher ratings in classroom teaching skill when rated by outside observers than did the alternatively-prepared teachers.

In studying the mathematical knowledge of fifty-five alternate-route teachers with math degrees, McDiarmid and Wilson (1991) found that these teachers commonly understood mathematical algorithms but not mathematics theory or concepts. Furthermore, a longitudinal study of these teachers indicated that their articulation of mathematical concepts did not necessarily increase on the job, leading the authors to question whether or not one can expect new teachers to learn by teaching. Darling-Hammond (2000) asserts that subject-specific pedagogical training does, indeed, have an effect. They conclude that “among variables assessing teacher ‘quality,’ the percentage of teachers with full certification and a major in the field in which they teach is a more powerful predictor of student achievement than teachers’ education levels” (p. 38).

It is difficult, if not impossible, to make generalizations about the effects of alternative certification programs on teacher quality based on a few limited, context-specific studies. However, studies of the programs can illuminate the variety and complexity of the individual sites, including the different program components; document the policy contexts within which the programs were created; and demonstrate the differences in program designs and assumptions about teacher quality. Before policymakers and practitioners summarily extol or decry alternative certification programs, it is important to acknowledge that different programs may have more or less success in alleviating shortages and improving quality, and to understand in greater detail how these programs work.

Much of the early research on alternative certification focused on the macro effects of the policy, rather than examining the specifics of programs and the participants’ experiences.

In a recent review of the literature on issues in teacher preparation, experts recommended:

Future research will need to include more detailed descriptions of the various alternative-route program structures and content before conclusions can be drawn about characteristics that make for quality programs (Wilson et al. 2001, p. iii).

Recent research on alternative certification programs, conducted within the larger context of increased accountability, has focused more on alternative certification as an avenue for improving teacher quality, has posed questions about whether specific programs are models worth replicating in other states or districts, and has identified the components and characteristics of high-quality programs. This research offers important lessons about program design and implementation, and encourages analysis of specific program elements and the contexts within which these programs operate and prepare new teachers. The research underscores the importance of recognizing the variation in alternative certification programs, and suggests that it may be more difficult to compare the programs and to analyze the success of the policy than the current debate about the benefits and consequences invites or allows. Some recent research also includes participants' views of their experiences in these programs, and their initial teaching experiences.

Click here for a review of literature on alternative certification and [student achievement](#).

Program Research and Effect Studies

The following are some lessons learned from alternative certification program research and effect studies.

Some programs met the purposes for which they were created. Connecticut was one of the first states to implement alternative certification legislation in 1986 as part of broader legislation. Bliss (1990) completed an analysis of Connecticut's program, using internal evaluations to review its success in relation to its goals. He found that the program was meeting the primary goal of recruiting highly qualified individuals into teaching, as

Connecticut officials had defined by their strength in subject matter knowledge, and an increasing number of mid-career individuals were entering the profession through the alternate route. Bliss heralds the “three-year record of accomplishment” of the program (p. 51) and its popularity among program participants and school officials.

In early research about the effects of one district-based alternative certification program, Stoddart (1990) observed, “there is currently little information available on the outcomes of such alternative approaches to teacher recruitment and training” (p. 85). In her case study of one program, the Los Angeles Unified School District’s Intern Program, she sought to determine whether the alternative route met the district’s teacher recruitment and training needs—in other words, did the program attain its purpose? Stoddart learned that the program was effective in attracting and retaining academically competent individuals to teach in urban schools in Los Angeles. When compared to national figures on college-based teacher preparation programs, it demonstrated a strong record of recruiting candidates who indicate an interest in teaching in urban schools, and reduced the number of emergency-credentialed teachers hired in the district.

The Pathways to Teaching Careers program launched in 1989 in response to the teacher shortage provides access to university teacher certification programs for individuals who are currently teaching without certification and would like to become teachers (Rice and Brent 2002). The purpose of the program was to alleviate the teacher shortage by providing new routes to teacher certification, increasing the number of well-prepared and fully-certified teachers, especially minority teachers, by targeting four different populations of prospective teachers: pre-college, undergraduates, para-professionals, and peace corps fellows (Clewell and Villegas 1999).

Clewell and Villegas’ evaluation revealed program success on several indicators. First, the number of students enrolled in the Pathways programs nationwide (2,466) exceeded the target set (2,345) and retention rates in the programs were high (87 percent). Further, almost half of those enrolled (46 percent) completed certification requirements. In terms of teaching effectiveness of participants, field experience supervisors and principals rated

them on average with a 4.3 on a scale of one to five, with five equaling the strongest performance.

Fowler (2003) analyzed the Massachusetts Institute for New Teachers (MINT), an alternative certification program, compared to the state policy conditions under which the program legislation was created, particularly the policy goals of increasing qualified candidates, attracting individuals who may not have considered teaching previously, and improving the shortage. Fowler reported that a surprisingly high number of individuals who attended the MINT training had substantial prior educational experience. Specifically, 22 percent of MINT 2000 participants indicated on a department-sponsored survey that they had “attended a teacher training program as part of their undergrad or grad education before attending MINT” (p. 13). Further, Fowler’s data indicate that the program failed to meet the goal of placing signing bonus recipients—a subset of the MINT participants—in the thirteen high-need districts in the state; less than half of the second cohort of signing bonus recipients chose to teach in those districts. Finally, these data show that the program attrition rates were well above national averages; 20 percent of the first cohort of bonus recipients left teaching after one year. Fowler concluded that the Massachusetts Program has failed to produce the positive gains that policymakers envision such programs will have in recruitment and retention of high quality candidates for high-need districts.

Program designs and goals should relate to their contexts. Stoddart’s 1990 research on the Los Angeles Unified District Intern program revealed that the participants’ coursework is embedded in the district context, and also emphasizes the local and specific needs of an urban multicultural school district and student population. Stoddart’s research revealed that district administrators crafted a program that was uniquely tailored to the conditions of the district and its population, affirming the point that alternative certification programs vary depending upon their context.

In commenting on the limitations of her Connecticut study, Bliss (1990) advised: “The danger with the type of positive data reported throughout this article, however, is that it

can be used out of context. That Connecticut ARC teachers are performing at least as well as teachers from standard programs would not be used as a general endorsement of the alternate route concept in states which take a different approach” (p. 51). Bliss’ research points to the importance of analyzing alternative certification programs within their policy contexts and examining their purpose and goals.

The importance of context in studying alternative certification programs and their policy implications emerged in Zumwalt’s (1991) study of three programs (Los Angeles, New Jersey, and Connecticut). She compared the design variations of the programs, attending to four areas: the policy context; program elements; school-based support systems; and certification requirements. Zumwalt concluded that the programs must be judged within their specific contexts: “Much can be learned from viewing alternate route programs as a variety of context-specific, naturally occurring experiments, rather than as an alternative to be extolled or dismissed” (p. 92).

Similarly, in Natriello and Zumwalt’s (1993) study of New Jersey’s Provisional Teacher Program, context is essential to understanding the program’s successes and areas for improvement. In this study, the researchers used data from a series of surveys conducted between spring 1987 and spring of 1990. The sample includes teachers prepared through college-based programs and those prepared through the Provisional Teacher Program. Based on their data, they advise that “viewing alternate route programs generically may be misleading and that treating alternate route programs as either a threat or a boon to teacher professionalism may be overestimating their effects” (p. 72). Natriello and Zumwalt conclude that because subject area shortages vary greatly, “In the case of New Jersey, data ...indicate that varying contexts justify considering separately the policy implications of establishing alternate routes to teaching in different subject areas” (p. 72).

Programs should represent several different models. Dill (1994) conducted research on Texas’ “experiment” in alternative certification. She characterized three models of alternative certification that emerged: the local school district model, the coursework-based model, and the intermediate education services centers (IESC) model. In the first

model, the school district is the authorizing agency, and the programs feature district-based preparation with a minimum amount of higher education coursework. The second model is the traditional pre-service preparation model, with an emphasis on coursework; a higher education agency is the administrative or fiscal agent for this model. In the third model, certification candidates complete training through contact hours; the training is conducted by independent consultants or specialists at these service centers. Another model, which Dill did not identify specifically, is the one in which the state takes responsibility for certification of teachers, such as the program in Connecticut, where the department of higher education sponsors three program sites, hires faculty, develops and implements curricula, and evaluates participants.

Program components should differ by program. Program components, or the elements of the program structured to prepare candidates to teach, may include but are not limited to the following: coursework, student teaching, hiring and job placement, and follow-up support. While the components are similar in name, they may be quite different in design and implementation.

In their study of Houston's alternative certification program, Stafford and Barrow (1994) observed the importance of the balance between program components, and identify four "essential components": Screening, training, supervision, and support. They conclude that the four components are so vital that if just one of them is weak or lacking, "the success of the entire program is in jeopardy" (p. 194), highlighting the importance of the interplay between these components and the challenges for program providers to ensure that the components are solid.

Dill (1994) reported on the "delicate balance" between different models of alternative certification and the program providers—districts, universities, and intermediate agencies. This balancing act "requires constant nurturing" by state and local policymakers (p. 153). Dill's findings documented the variation in program providers, and foreshadowed the complexity of program partnerships and capacity in designing and implementing alternative certification programs.

Making assumptions about teacher quality influences program design and implementation. Two recent papers on the New York City Teaching Fellows Program investigate what “quality” means and how it is pursued in the program. Buice’s (2003) extensive fieldwork on the program’s “quest for quality” documents the processes by which discourses of teacher quality are produced and manifested. Buice suggests that “the combination of elements that make a person a quality teacher, and the ways in which she or he ought to be trained, are culturally and ideologically constructed” (p. 1) and sets out to test this theory. She documents the “competencies” of the program’s selection model, and concludes that the selection model appears to succeed in choosing highly-qualified individuals according to the more academic competencies. However, she warns that there may be conflict between the program partners—the non-profit consulting organization that conducts selection, and the universities that carry out the training: “Some university program partners have voiced concern over the appropriateness and applicability of Fellows’ academic backgrounds to teaching and to fulfilling requirements for state certification” (p. 11).

Peske (2003) identified five ways in which those who create alternative certification programs conceive of and provide for quality. The five approaches to quality control include: selective admissions; staffing by experts; design of the program; compliance with standards; and summative assessment. She reports that most alternative certification programs include elements of all five approaches to quality. For example, the programs select candidates one might expect to succeed, include faculty assumed to be effective, institute some type of structured program, comply with certification regulations (state, district, or both), and include a summative assessment of teachers’ performances. Further, as Birkeland’s (2003) study demonstrated, the approach to quality is not static, and can change in implementation, based on the resources and beliefs of program administrators and those who implement the program components.

Program participants’ levels of satisfaction are varied, and depend upon many factors. In her interviews with program participants, Buice (2003) concluded that there is much

variation in participants' responses to the program, though they were generally dissatisfied with their coursework and questioned the relevance to their teaching. They appeared most satisfied with the quick route. Much like the findings in Massachusetts (Liu et al. 2003) and in Connecticut (Peske 2003), the participants appreciated the opportunity to enter classrooms quickly, and said that without the program, it would not have been financially feasible to enter teaching.

Dickar (2003) compared the two types of participants in the New York City Teaching Fellows program—the career changers and the recent college graduates—to determine if there was variation in their responses to the program and their success in the classroom. Dickar's sample of fifty-six alternative certification candidates includes twenty-six career changers and thirty recent college graduates. The study finds that career changers tended to either exceed expectations or perform well below them, while recent college graduates tended to perform across the spectrum of expectations. Dickar reported: "Career changers performing below expectations tended to lack the flexibility to function in struggling schools, enter the profession casually rather than passionately, and are detached from their students. Those exceeding expectations tend to bring a high commitment to teaching, many professional skills that foster success, and are able to synthesize their teacher education, staff development in their schools, and advice from others into their practice meaningfully." Like Bliss' work a decade earlier, these findings suggest the importance to alternative certification program designers of taking into account the participants' characteristics, particularly their career stage, and the experiences they bring into the program that may assist or hinder them in learning to teach.

Research and practice must consider the importance of cost in program design and implementation. Rice and Brent (2002) completed an analysis of the costs associated with the Pathways to Teaching Careers program, a national program with field sites around the nation. The authors discuss "efficiency issues" and explore *how* the resources can be best used in the program (p. 1031; "efficiency" here refers to the number of students served, academic program, program size and duration, personnel practices, and equipment and facilities). They found that the size of the eight sites in the study varied, as did the length

of the training each offered, though most lasted two to three years. The academic program offered to participants was cited as the “cornerstone” of each program site (p. 1037), a finding consistent with other alternative certification program participants’ accounts (Buice 2003, Churchill et al. 2002, Stoddart 1990). The academic program is also associated with the highest cost, by far, of any program element. Interestingly, there was “considerable variation” in how the program hired instructors across the eight sites, due to variation in supply and local capacity, and ultimately leading to considerable variation in program costs.

Wilson, Floden, and Ferrini-Mundy (2001) reviewed the research on teacher preparation, including alternative routes. They report that the programs have been successful in recruiting a more diverse cohort of teachers, though the record is “mixed” in terms of the qualifications of the teachers. The programs vary in their capacity to induct new teachers into knowledge that prepares them for the classroom. Finally, the distinctions between alternative certification programs and traditional programs are becoming increasingly blurred; alternative certification programs with high standards for entry, rigorous coursework requirements, and high evaluation standards may be similar to traditional college-based teacher education programs. Wilson, Floden, and Ferrini-Mundy call for future research that seeks to identify which kinds of alternative routes are successful and in what ways by comparing various types of alternative routes. They recommend investing in research that includes multiple sites, and provides a national understanding of the state of teacher preparation, including alternative certification.

At least two large-scale studies of alternative certification programs are currently underway. Researchers are attempting to gain a deeper understanding of the differences among programs, their challenges and successes, and how institutional context and capacity matter by studying the components of the individual programs and participants’ responses, and by comparing the programs.

Researchers at The Project on the Next Generation of Teachers at the Harvard Graduate School of Education are conducting a multi-year, field-based, qualitative study of how

sponsors of alternative certification programs approach the task of preparing quality teachers, establish partnerships, and develop capacity to implement these preparation programs. The sample includes thirteen programs in four states, each representing a variety of models and several participants from each site, whom researchers interviewed about their experiences both during the program and again while teaching. The researchers will disseminate their findings in 2003–2004 (www.gse.harvard.edu/~ngt). Researchers at SRI International are conducting a study examining the components of various alternative routes to certification and their “relative effectiveness in preparing teachers for classrooms” (Humphrey et al. 2002, p. 2). The researchers are careful to explain that this is not a comparative study of alternatively- and traditionally-certified teachers; rather, it is a study that attempts to determine the characteristics of programs that make them more or less effective in preparing teachers for classrooms, and to understand the ways in which the programs contribute to the quality and quantity of new teachers. They balance this by including the question, “How does the state and local policy context affect the design and implementation of alternative certification programs?” (p. 13). The data collection methods include a web-based survey of program directors from a sample of programs; in-depth case studies of seven programs; and an analysis of existing data on alternative certification programs and student achievement. The interviews will also include focus groups with some program participants and administrators. The final report will be completed in December 2004 (available at <http://www.sri.com/policy/cep/teachers/altcert.pdf>).

Click here for a review of literature on alternative certification [program research and effect studies](#).

Conclusions

Alternative certification policy was created in response to concurrent concerns about the teacher shortage and teacher quality. Alternative certification programs have proliferated in the past few years, so that as of 2003, forty-six states and numerous districts reported having some alternative to traditional teacher certification. The consequences of the teacher shortage have become part of the rationale for alternative certification policy: to

recruit new candidates to fill retiring teachers' classrooms, to diversify the teaching force, to better distribute the corps of qualified teachers to all schools, and to certify large numbers of unlicensed teachers. Fears about declining teacher quality have been exacerbated during this era of accountability, and have stoked the fires of the debate about who makes an "effective teacher," and how best to attract, prepare, and retain them.

The debate about alternative certification has become polarized between those who argue for higher certification standards and increased regulation; and those who argue for removing regulations, or barriers, to certification, promoting alternative routes, and allowing schools and districts themselves to choose qualified candidates. The debate often neglects to consider the programs' variety and complexity, contextual factors, differences in designs and program components, and multiplicity of purposes.

As the student population in this country grows increasingly diverse and the teacher population grows increasingly white, many officials stress the importance of recruiting more teachers of color. There is some evidence that alternative certification programs recruit men and minorities in greater proportions than do traditional programs. Programs like Pathways to Teaching have successfully recruited teachers from the pool of para-professional educators. However, there is also evidence that alternative certification policies that rely primarily on testing could exclude minority candidates.

The body of effect studies is also mixed, resting on a range of assumptions about the causes and indicators of effective teaching, and ranging in terms of sample size and location (i.e., small, one site-study vs. large, national dataset). The research on individual programs has documented various program components; explored the policy contexts within which the programs were created; and demonstrated the differences in designs and assumptions about quality. Some of this more recent research includes interviews with participants, which helps to understand what participants find attractive about these programs, and what they find useful—both before and after they have begun to teach. Current research examines cross-site similarities and differences in programs; participants' perspectives on the programs; and illuminates effective program

components. This research will offer useful lessons in understanding how to best design and implement alternative certification programs, and what factors to consider in balancing the tensions in creating a program that will attract teachers and ensure their quality.

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