

Encore Performances

Tapping the Potential of Midcareer and Second-Career Teachers

David Haselkorn and Karen Hammerness

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by

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EXECUTIVE SUMMARY

In 2007, the Woodrow Wilson National Fellowship Foundation, with support from the Lehman Brothers Foundation, commissioned Public Agenda to explore interest in teaching careers among high-achieving college students, recent graduates, and potential career changers. Public Agenda conducted focus groups in six cities around the nation. Through this series of initial probes, interviewers sought to determine what it would take to recruit high-caliber candidates to teaching, what obstacles would prevent their choosing to teach, and what incentives, programs, and supports would be attractive to them.

MetLife Foundation, specifically interested in potential career changers as teachers, funded the Woodrow Wilson Foundation for two projects to expand this initial research. The first, a review of previous findings on career changers in teaching, is presented in this report. The second, published in a companion volume, is a public opinion survey that aims to gauge interest in teaching among the nation's college-educated adults and to assess what might lead more of them to choose teaching.

As a guide to what is already known about career changers and their motivations to teach, this current report combines the findings from Woodrow Wilson's initial Public Agenda focus groups with an independent review of existing research on career changers. Based on this literature review and the new data that accompanies it, the Woodrow Wilson Foundation offers a series of recommendations for policy, research, and teacher preparation.

Overview

Over the next five to ten years, the United States' teacher force faces multiple challenges. Among them: a growing number of teacher retirements and a persistently high attrition among teachers new to the profession, many of whom leave the classroom within their first three years of teaching. The resulting pressure on the supply of teachers will be particularly severe in high-need fields (such as science, math, and special education) and in disadvantaged urban and rural schools, which have more difficulty than their suburban counterparts in recruiting and retaining teachers.

One source of potential teachers is the substantial pool of mid- and second-career professionals who might be willing to consider a transition to teaching. Yet, despite a growing number of programs that focus on such candidates, a great deal remains unknown about the number, profile, pathways, and experience of midcareer and second-career professionals who choose to teach, and about how more might be enticed to do so.

Encore Performances offers potential new directions for leaders of teacher preparation programs, as well as policymakers and researchers. It looks at the differences between what is *known* and what has been *said* about career changers in teaching. It documents the rise of programs that prepare career changers to teach, and reviews what is known about their impact. It examines the motivations and experiences of career changers in their transitions to teaching, and it offers recommendations to strengthen the programs designed to recruit and prepare them for classroom careers.

Some key findings:

- Over the past two decades, the number of programs designed to bring career changers and other delayed entrants into teaching has increased significantly.

The call to teach resonates with many potential career changers, but their desire to serve must be matched with adequate incentives, appropriate and thorough preparation, and continuing supports.

- Research indicates that these programs have the ability to attract potential teachers who are more diverse—in age, gender, race, ethnicity, and prior experience—than those drawn to teaching as a first career.
- There is, however, significant variation among the kinds of candidates attracted to alternative-certification programs and other programs designed for career changers and delayed entrants to teaching.
- More research is needed to connect candidate and program characteristics to retention and success in the classroom.
- More targeted efforts are needed to attract candidates with the most desirable mix of skills, expertise, and content knowledge, as well as to develop programs that effectively tap their potential for promoting better student outcomes.
- Career changers need greater incentives (particularly stipends, partial salary support, health care coverage, and loan forgiveness) to help them make successful transitions to teaching.

Recommendations for Teacher Recruitment and Preparation

Teachers who have come from other careers want to be effective in the classroom. Their success hinges on excellent, targeted teacher preparation, as well as positive, well-supported initial teaching experiences. Programs need to take several specific steps:

- Use targeted selection processes that identify the strongest candidates.
- Design programs that take into account the specific needs of adult learners.
- Ground pedagogy in content and the needs of diverse learners, integrating theory and practice.
- Provide strong clinical experiences in schools that prepare candidates for the specific settings in which they will teach.
- Assist with appropriate job placement in schools that make efforts to support novice teachers.
- Ensure that teacher preparation programs are organized to promote students' success as learners.

Achieving these goals may require considerable reengineering of current teacher preparation programs. Strong arts and sciences faculty, along with education school faculty who have considerable K-12 experience, must participate in designing and delivering programs that better integrate content and pedagogy, theory and practice. More effective collaborations with school districts are needed in the creation of clinically-based programs, with accomplished teachers serving as mentors, cooperating teachers, and clinical faculty. District-based programs must forge stronger partnerships with universities to ensure that apprenticeship-style preparation remains connected to advances in the disciplines, teaching and learning, technology, neurodevelopmental understanding, and more.

Recommendations for Policymakers

Policymakers eager to tap the pool of potential career changers for teaching need to understand that, while the call to service resonates with many candidates, the desire to serve must be matched with adequate incentives, appropriate preparation, and continuing supports to ensure classroom effectiveness. Some key measures for policymakers' consideration:

- Support programs that use rigorous selection processes, as well as those tailored to adult learners.
- Design incentives that respond to the needs of the most desirable candidates.
- Support high-quality teacher preparation by providing resources for promising programs and innovative new pathways for teacher candidates who are changing careers;
- Help develop a teaching pipeline that provides more thoughtful transitions to teaching, particularly in high-need settings.
    - Focus on stronger and more systematic approaches to mentoring; thoughtful, cohort-based preparation and placement; scaffolded placement, avoiding the assignment of novices to the most difficult situations; and more graduated assumption of teaching roles and responsibilities in hard to staff schools.
    - Expand opportunities for prospective mid- and second-career teacher candidates to explore teaching through well-supervised short-term or part-time roles in schools, prior to their making the high-stakes decision to switch careers.
    - Provide mentors with better training preparation to work specifically with adult learners.

> **To succeed as teachers, career changers need tailored preparation and clinical experience in subject-based pedagogy and the needs of diverse learners, plus ongoing support.**

- Focus upon improving working conditions in schools.
- Support the development of state and district data systems to make clear the links between teachers' preparation, teachers' performance, and students' learning.

Recommendations for Researchers

More information is still needed about the pool of prospective career changers, the incentives that will attract them to teaching, the programs that will prepare them well, and the supports they will need both as beginning teachers and throughout their careers. Researchers should pursue a range of studies:

- Confirm the numbers of entering mid- and second-career teachers at the national, state, and local levels, examining labor market differences and variations in candidate characteristics and demographics;
- Understand the kinds of prior experiences that mid- and second-career teacher candidates have—in particular, the kinds of skills and abilities they bring to teaching and the ways in which programs can capitalize on them;
- Identify characteristics of programs that produce the most effective teachers for high-need learners;
- Analyze the motivations of mid- and second-career teacher candidates, paying particular attention to differences that result in identifiable variations in their orientation to teaching—such as their perceptions of teaching as a short- or long-term commitment and their reasons for choosing teaching (for instance, lifestyle compatibility, simple career change, idealism, interest in subject matter, a desire to work with children and youth, or a constellation of such factors).

Linking research on features of these programs with the outcomes achieved by the most effective teachers will help identify programs that actually do prepare older entrants well. It may be that the best programs have specific means of helping mid- and second-career teacher candidates transition to teaching and use skills appropriately and effectively; ground their learning in real examples from teaching and learning in classrooms; or use theories of adult learning. However, there may be other principles at work in effective programs, as well. The field needs to understand much more about how best to prepare this pool of potential teachers in order to help them be the most successful in their future classroom roles.

INTRODUCTION

Talented, well-prepared teachers are the key to improved educational outcomes. But in the schools that need them the most, such teachers are often in scarce supply.

For years, policymakers and school leaders have struggled to recruit, prepare, and retain enough highly qualified teachers to staff the nation's underresourced urban and rural schools. They have tried an array of strategies: signing bonuses, offshore recruitment, Peace Corps-style service programs, loan forgiveness, paraprofessional career ladders, profession-specific transition initiatives like Troops to Teachers, alternative routes to licensure, and many others. However, absent clear evidence for the most effective approaches to preparation, or for that matter clear consensus on baseline standards of effectiveness, human resource development in education has been riddled with competing program claims, recruitment strategies, and policies.

Some educators and policymakers argue for hiring new teachers solely on the basis of their academic ability and background in the subject matter, with subsequent preparation, and winnowing out of poor performers, on the job. Others contend that teaching, like other professions, requires considerable preparation to safeguard students from unqualified or underprepared practitioners. This approach calls for specialized preparatory coursework—in the subject(s) to be taught, theories of learning and their applications, child/adolescent development, assessment, and teaching methods—coupled with well-scaffolded experiences in classrooms before a candidate "flies solo" in his or her own classroom.

Both camps have fixed on the potential of career changers to expand education's human resource pool, offering varied prescriptions for tapping that potential. All sides in the debate, however, agree that career changers can offer the teaching profession desperately needed experience, talent and commitment.

There is an urgent and well-documented need, for example, for skilled science and mathematics teachers.[1] National reports such as *Rising Above the Gathering Storm*, the Business-Higher Education Forum's report *An American Imperative*, and the Glenn Commission report, *Before It's Too Late*, have called for expanded recruitment of mid- and second-career teachers from among professionals in math- and science-related fields.[2] More broadly, across a variety of subjects and grade levels, mid and second career teaching candidates are presumed to offer strong subject matter backgrounds, maturity, and experiences from professional fields that can broaden the talent base of the teaching profession and help connect teaching and learning to expanded applications in the world of work. They may also offer a pool of prospective teachers that is more ethnically and gender diverse than present enrollment patterns in undergraduate teacher education, which remain overwhelmingly white and female.

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[1] The Business-Higher Education Forum (BHEF) has projected that our nation will need more than 280,000 new mathematics and science teachers by 2015. This shortage is particularly acute in classrooms that serve our nation's poorest students.

[2] Committee on Prospering in the Global Economy of the 21st Century [Augustine *et al.*], *Rising Above the Gathering Storm* (Washington, D.C.: National Academies Press, 2005 < http://www.nap.edu/catalog.php?record_id=11463 >); Business-Higher Education Forum, *An American Imperative* (Washington, D.C.: The Business-Higher Education Forum, 2007 <http://www.bhef.com/solutions/anamericanimperative.asp>); The National Commission on Mathematics and Science Teaching for the 21st Century, *Before It's Too Late* (Washington, D.C.: U.S. Department of Education, 2000 <http://www.ed.gov/inits/Math/glenn/index.html>).

Still, despite these emphases, and despite substantial growth in the number of programs that focus on preparing career changers to teach, a great deal remains unknown about the size of this potential pool and the profile, pathways, and experience of teacher candidates who enter the profession from other careers.

In 2007 the Woodrow Wilson National Fellowship Foundation launched a new teaching fellowship designed to recruit and prepare a new generation of talented and effective teachers for the nation's high-need schools. Aimed at both traditional-age and midcareer candidates, the initiative offers $30,000 stipends to individuals with strong records of academic performance, professional accomplishment, and community contribution. Fellows enroll in specially designed master's degree programs of teacher preparation that emphasize disciplinary depth, subject-specific pedagogy, and intensive clinical experience, followed by three years of mentoring both in and beyond the classroom.

To help identify and generate a large pool of excellent applicants, the Foundation commissioned research on what it would take to recruit and prepare effective teachers for high-need urban and rural schools. Its "tipping point" studies have included focus groups conducted by the nonprofit research group Public Agenda; a comprehensive research review of the literature on career changers in teaching by Dr. Karen Hammerness; and public opinion polling of a representative national sample of college-educated adults by the survey research firm of Peter D. Hart Research Associates.

Collectively these studies provide new insights into the pool of prospective mid- and second-career teachers, the programs designed to attract them, and what it will take to fully realize their potential. This report lays out current knowledge about career changers in teaching and the programs designed to recruit and prepare them. The review is complemented by perspectives from Public Agenda's focus groups, where a number of potential career changers voiced aspirations and anxieties about teaching. While the call to teach is compelling for many, answering it too often requires overcoming myriad pragmatic, programmatic, and societal hurdles.

In sum, this report examines the growing phenomenon of career changers in teaching, as well as the programs, policies, demographic trends, and assumptions that shape it. It addresses six key questions:

- What do we know about the prevalence of career changers in teaching?
- What do we know about the demographics of those who enter teaching in midcareer, or as a second career?
- What motivates career changers to choose teaching?
- What qualifications do they bring to teaching?
- How are they being prepared?
- What is their experience in the classroom?

These are far more than simply academic questions. Over the next decade, researchers estimate, the nation will need two million teachers to replace baby-boomers nearing retirement[3] and replenish the ranks of novice teacher ranks, perennially depleted by high rates of attrition.[4]

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[3] A 2005 national survey indicated that 34% of current public high school teachers expect to retire by 2010 (Feistritzer, 2005).

[4] According to researchers Penelope Early and Susan Ross, "[I]t is generally accepted that about half of new teachers will leave within the first five years of teaching. The rate of attrition is substantially higher in certain fields, such as special education…, and among new teachers in high-poverty schools…" (Early and Ross, 2006).

Accordingly, Part One of this report, "Findings," summarizes available research on these six key questions. Part Two, "Implications," answers a seventh question, perhaps the most critical of all: how can the nation make the most effective use of career changers as teachers? This discussion leads to recommendations, in Part Three, for further research, policy, and practice. A bibliography (p. 38) and a comprehensive list of state contacts, intended to provide links to further information on midcareer and alternative routes to teaching (p. 43), are included as additional appendices.

The Foundation expresses its deep appreciation to MetLife Foundation and its president, Sibyl Jacobson. Through the annual *MetLife Survey of the American Teacher* and other studies, MetLife and MetLife Foundation have made invaluable contributions to current understandings of both veteran and new teachers' attitudes and experiences, supporting positive change in preparation, induction, professional development practices and policies. The present work seeks to add the perspectives of the growing pool of mid- and second career teachers and prospective career changers to this important body of first-person and policy-focused research on teachers.

The Foundation is also grateful to the many researchers and program directors who have contributed to this study. Particular mention must be made of Susan Moore Johnson and her colleagues at the Next Generation of Teachers Project, Emily Feistritzer of the National Center for Education Information, Pamela Grossman of Stanford University and her colleagues in the New York Pathways Project, and research assistant Brianna Cummings, who helped compile the state program survey found in the appendix. Rocco Russo and Mari Pearlman provided critique and much-appreciated editorial suggestions. While the insights of these various scholars and approval to include citations from their work are gratefully acknowledged, the perspectives and recommendations in this report are those of the authors alone.

PART ONE:
FINDINGS

Question 1:
What do we know about the prevalence of career changers in teaching?

Sweeping changes in U.S. workforce patterns and expectations have led a growing number of midcareer and second-career professionals to consider teaching as an encore career. Medical, social and technological developments are enabling people to remain in the labor force longer. Gen X-ers expect to work for six to nine employers across their lifespan; Millennials, even more. Women seeking to accommodate family responsibilities, in particular, move in and out of the workforce more frequently than ever before.

As a consequence of these trends, the notion of a career is becoming more flexible and more fluid. Rather than consider occupational change negatively (as a sign of immaturity or weak career commitment), some adult developmental theorists argue that the continuing search for fulfillment in one's professional life is the "central social obligation" of an individual in society (Serow and Forrest, 1994).

Not only do young workers anticipate having multiple careers over their working life, older Americans also increasingly expect to work longer and pursue encore careers. In a 2005 study of attitudes about work among Americans between the ages of 50 and 70, MetLife Foundation and Civic Ventures found that 53% planned on second careers, and 50% were interested in taking jobs that help improve the quality of life in their communities (MetLife/Civic Ventures, 2005). And, of those Americans aged 50 to 70 who planned to work, education was among the top choices.

Teaching has benefitted from these and other employment trends for quite some time. The average age of new teachers prepared in teacher education programs is rising, and growing numbers of older entrants are taking advantage of alternative routes to certification and licensure.

Changing Entry Patterns in the Teaching Profession

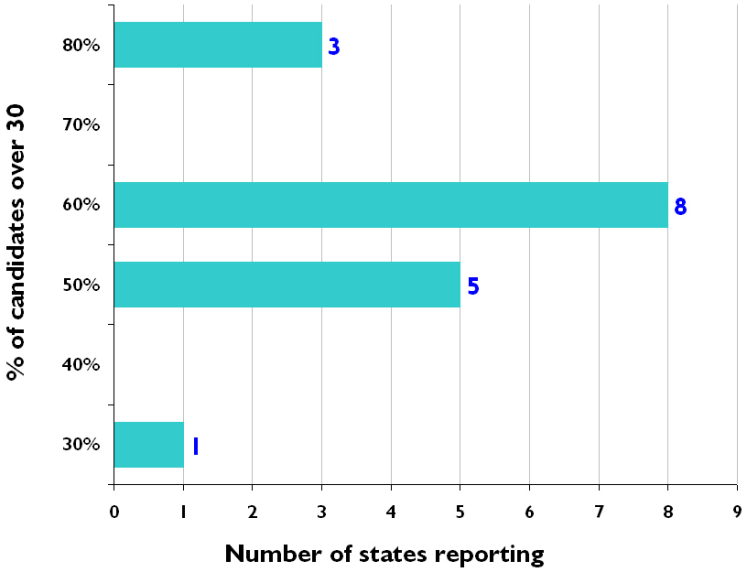
The phenomenon of midcareer entrants to teaching first garnered substantial attention in the mid-1980s and early 1990s. During those years, a number of major national reports called for the profession to tap the pool of potential midcareer changers as teachers. States began establishing alternative routes to teaching and foundations began funding new pathways into the profession, all with the goal of increasing the quality, diversity and numbers of new recruits.[5]

Accordingly, since the early to mid-1990s, policymakers have noted that increasing numbers of new teachers are older and possess prior work experience (see, for example, Novak and Knowles, 1992; Crow, Levine and Nager, 1990; Serow and Forrest, 1994). Data from the 1999-2000 federal schools and staffing survey (SASS) indicated that the average age of beginning teachers was 29, a significant increase over previous years (Provasnik and Dorfman, 2005, p. 3; Provasnik, 2007, personal communication). Data also

[5] However, not all career changers take alternative routes, and not all alternative paths appeal primarily to people who are actually changing their careers. Some mid career professionals prefer post-baccalaureate programs in more traditional graduate teacher education programs. Some non-traditional-age candidates, regardless of certification route, are simply delayed entrants who may have held a series of jobs but have not previously pursued a particular career or profession.

showed declines in aggregate years of classroom experience for all employed teachers, suggesting more teachers entering teaching later in life.[6]

Figure 1:
Percentages of Alternative Certification Candidates Over 30
(17 states reporting)



Source: Feistritzer 2007, p. 27.

These trends vary significantly by region, reflecting differences in both labor markets and policy environments (Johnson *et al.*, 2004; Boyd *et al.*, 2002). For instance, Susan Moore Johnson and her colleagues on the Project on the Next Generation of Teachers (Johnson *et al.*, 2004) conducted a random-sample survey of first- and second-year teachers in seven states, and found that the percentages of older entrants ranged from 28% in Michigan to 46% in Massachusetts to 47% in California.[7]

Other research on alternative route programs suggests similar trends (Feistritzer, 2005, 2007; Clewell and Villegas, 2001). For instance, Feistritzer's recent (2007) state-by-state report on alternative certification finds many participants over the age of 30 in these programs. Of the seventeen states reporting data on the estimated average age of participants in their alternative-route programs, three states (Virginia, Utah, and Connecticut) reported more than 80% of these new teacher candidates were over age 30. Eight states (Alaska, Colorado, Delaware, Florida, Kentucky, Michigan, Missouri, Montana) reported more than 60% of alternative-route entrants over the age of 30; and five states (California, Georgia, Mississippi; Texas; South Carolina) reported more than 50% of alternative-route entrants over 30. Only one state showed a different pattern: New York, which reported that only 34% of participants in alternative certification were over the age of 30 while 69% were between 18 and 29 (Feistritzer, 2007 p. 27).

These trends reflect the increased policy emphasis since the late 1980s on alternative routes to teaching through programs such as the federally sponsored Transition to Teaching initiative; national programs such as the New Teacher Project; statewide programs such as the Massachusetts Initiative for New Teachers program; the California Math and Science Initiative, the New York City Teaching Fellows program; the New Jersey Provisional Teacher Program; and similar programs in other cities and states. (See the box on the next page for a brief list of some prominent national and state programs and initiatives designed to bring older entrants into teaching).

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[6] For example, in 1999-2000, 19% of teachers between the ages of 40 and 49 had less than 10 years of teaching experience, and 9% of teachers between the ages of 50and 59 had less than 10 years of teaching experience (Provasnick & Dorfman, 2005, p. 4). In 2003-04, an estimated 25% of those 45-49 had less than 10 years of teaching experience and 12% of those 50-59 had less than 10 years of teaching experience (Provasnik, personal communication, 2007).

[7] It is worth noting the considerable policy and philanthropic activity at the state level that may have affected the increase in the population of older entrants.

Examples of Federal, Nationwide, and State/Local Efforts to Recruit Career Changers Into Teaching

Federal Programs and Initiatives

Transition to Teaching Program: Established under the Elementary and Secondary Education Act, this federally funded program provides five-year grants to state and local educational agencies, as well as for-profit organizations, nonprofit organizations, and institutions of higher education collaborating with state or local educational agencies. Grantees develop and implement comprehensive approaches to train, place, and support teacher candidates (paraeducators, new college graduates and midcareer candidates) whom they have recruited into their programs, which must meet relevant state certification or licensing requirements. Grantees then ensure that program participants are placed to teach in high-need schools and districts and support candidates to serve in these placements for at least three years. Since its inception, the program has made 237 awards to national, regional, and statewide recruitment initiatives, including most of the following efforts.

Nationwide Programs and Initiatives

The New Teacher Project is a national nonprofit project that partners with school districts to increase the number of well-qualified teachers in public schools, and has helped initiate (among other programs) teaching fellows programs in New York, Los Angeles, Chicago, Houston, Philadelphia, and other cities. Among these, the New York City Teaching Fellows (http://www.nycteachingfellows.org), one of the largest such programs nationally, began in 2000 with 350 teachers and now prepares approximately 2,000 annually.

The ***Pathways to Teaching Careers Program***, supported by the DeWitt Wallace-Readers Digest Fund in the 1990s, sought to increase the number of well-prepared teachers in high-need schools. In addition to recruiting current college students and college graduates, Pathways programs focused upon emergency-certified teachers, paraprofessionals, and returning Peace Corps volunteers.

Troops to Teachers is a national program authorized by the 1993 Defense Authorization Bill to provide referral assistance and placement services to military personnel interested in beginning second careers in public education as teachers. Since its inception, Troops to Teachers has supported approximately 8,000 veterans of the armed forces entering K-12 teaching (Feistritzer, 2005).

State/Local Programs and Initiatives

Massachusetts Initiative for New Teachers, https://www.doemass.org/mint, a program aimed at recent college graduates and mid-career professionals, was recently terminated at the conclusion of federal funding. MINT offered accelerated preparation and licensure, along with tuition scholarships, for candidates willing to teach high-need subjects for three years in high-need schools.

Milwaukee's ***Metropolitan Multicultural Teacher Education Program (MMTEP)*** is designed to bring paraprofessionals into teaching in Milwaukee public schools. The program is open to those who have a bachelor's degree but have not completed certification.

The ***New York City Teaching Fellows***, http://www.nycteachingfellows.org/, a program initiated in 2000, aims at bringing highly qualified recent graduates and mid-career candidates into teaching in New York City. The program began with 350 teachers and now prepares approximately 2,000.

Other notable programs: *California Math and Science Initiative; New Jersey Provisional Teacher Program; North Carolina's NC TEACH; Texas Region XIII Education Service Center's Educator Certification Program.*

The average age of new teachers who enter the profession through traditional routes is increasing—*and* growing numbers of more mature teacher entrants pursue alternative routes into teaching.

Not all alternative routes, however, target midcareer candidates. Teach for America, perhaps the nation's most prominent alternative route program, specifically targets college seniors and recent college graduates. Research conducted on alternative program candidates ten years ago also suggested that alternative pathways may not necessarily always attract an older population. In her analysis of the 1993-94 SASS survey, Shen (1997) found a larger number of younger teachers in the alternatively certified sample, while there were more teachers over 50 in the traditionally certified sample. Similarly, a recent study of pathways to teaching in New York (Loeb and Reininger, under review) found that the oldest candidates in their sample were students in traditional graduate programs, whose average age was 30.[8] While New York may be clearly an outlier in these matters, it is also one of the top states in hiring new teachers (hiring over 10,000 new teachers a year). These observations make clear the importance of understanding particular labor markets and trends in assessing education's human resource challenges and potential solutions.

In sum, it is clear that the average age of teachers who enter the profession through traditional teacher education is increasing, *and* that growing numbers of more mature teacher candidates enter teaching through alternative routes. While some researchers underscore that such delayed entrants represent fewer than a fifth of all teacher hires (17% according to Provasnick and Dorfman in 2005), other researchers claim a far larger role for alternative route and midcareer entrants (Feistritzer, 2007; see also Kane, 2006). Altogether, the descriptive research suggests significant numbers of more mature teachers entering the profession through myriad routes, both traditional and new.[9]

Question 2:
What do we know about the demographics of those entering teaching in mid-career, or as a second career?

The available data on delayed entrants to teaching both confirms and confounds a number of key claims that have been made about their age, gender, race and prior experience. Most research shows a substantial age distribution among candidates (through their late 20s, 30s and 40s). This variation can be found both within and across programs, often due to a program's particular recruiting strategies and target populations. Such findings underscore the potential benefits of designing recruitment incentives and pathways that differentiate among candidate types.

Second, while the widely touted success of alternate routes in attracting men to teaching appears to be true for some programs, different kinds of programs also vary widely in their appeal to men and women. Programs designed to attract paraeducators to teaching, for example, attract mostly women. Troops to Teachers has

[8] NCES data suggests that this group of older entrants is growing, as well. Data from the U.S. 2006 Digest of Educational Statistics indicates that from 1970 to 2005, the number of entrants in degree granting institutions who were 30 to 34 grew from 487 in 1970 to 1,265 in 2000, and is projected to be 1,658 in 2015.

[9] More research is needed to clarify and confirm how many older entrants enter teaching on a national level, as well how that trend may have changed over time. In addition, several studies suggest two important caveats. First, state labor markets may be quite different—such as that of the state of New York—and policies to attract different kinds of teachers in such states may need to reflect those variations. Second, the research calls attention to the variation within pathways, suggesting that different kinds of preparation may appeal not only to different ages but also markedly different populations of prospective teachers.

more men than women among its recruits. Some programs still reflect the profession's current gender composition, which is predominantly female. Still other initiatives, such as New Jersey's alternative route, have had noticeable success in attracting a greater proportion of men to teaching. Few studies disaggregate gender by grade level taught, and it may be that programs at the high school level are more successful in attracting male candidates, consistent with historical patterns of gender composition in teaching.

Third, available studies also indicate that more diverse candidates come into teaching through alternative pathways, as well as through those designed for midcareer or older entrants. Again, however, the research points to variation by program—programs like the Peace Corps Fellows were limited in their diversity, while Milwaukee's Metropolitan Multicultural Teacher Education Program (MMTEP) and other paraprofessional programs brought large numbers of diverse entrants.

Finally, less is known about career changers' prior experience—and what *is* known tends to defy conventional wisdom, or at least popular rhetoric, about the experience they bring to teaching. The available research indicates that not all delayed entrants are, in fact, true midcareer or second-career candidates. Some are merely "late deciders," college graduates who—even in their early 30s or later—have not yet settled on a career. While Feistritzer (2005) found a substantial number of midcareer and second-career teaching candidates entering through alternative pathways, few were switching from high-status professions such as law or medicine, and few held earned Ph.D.s in a discipline. Of her survey's 2,554 respondents, only 23 had a law degree, 8 a medical degree, and 27 a doctorate in a field other than education; another 5 held a doctorate in education. Indeed, combined, these candidates made up less than 1% of the overall sample. On the other hand, 40% of the respondents indicated they had been working in a "professional occupation" outside of education prior to teaching, but the exact nature of those occupations is not described.[10]

> "If you're young and you have a lot of energy, it'll be easy to do. If you're older and don't have a lot of financial obligations, it'll be easier to do. If you're at the top of your career, and you're trying to pay a mortgage and university tuition for one or two kids, then this isn't going to work."
>
> ***— Prospective career changer, San Jose***

Similarly, in a recent assessment of federally funded Transition to Teaching programs, evaluators observed, "Studies of alternate routes have found relatively limited occupational diversity among participants as a whole. These studies indicate that many participants have backgrounds as students or in other school-related areas, or in other fields, rather than the anticipated professional backgrounds" (Humphrey and Wechsler, 2005; Shen, 1997; Zientek, Capraro, and Capraro, 2006).[11] On the other hand, numerous programs that target mid- and second-career candidates with backgrounds in science and mathematics—such as the California Math and Science Initiative, or Harvard's Midcareer Math and Science Program—do attract career changers from a more highly accomplished professional base. The lesson from these and other similar programs: Targeted recruitment *can* be effective in deepening and diversifying the pool of prospective teachers and attracting candidates with specified backgrounds to the profession. Overall, however, more research needs to be done to understand the nature of career changers' work experiences and their relevance to their effectiveness as teachers.

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[10] The remaining included: 12% students at four-year colleges; 10% working in education as substitute teachers; 9% in the military; and the rest were in other positions.

[11] *Transition to Teaching Program Evaluation: An Interim Report on the FY 2002 Grantees*, U.S. Department of Education; Office of Planning, Evaluation and Policy Development; Policy and Program Studies Service, Washington, D.C., 2007 Transition to Teaching TTT teacher survey, 2005–06

"I remember having so many teachers that were quite good, and two that were extraordinary. I thought that to have the opportunity to set a young teen on the right course, and if you made the connection with them they probably would have—just the idea of really changing someone's life is an extraordinary feeling."

"I think it's also appealing to be able to have the opportunity to take a subject that is mystifying to kids and demystify it so that they can feel a sense of accomplishment."

"I was always interested in history government, and politics, and everyone who I ever had in [those subjects] was the most boring teacher. I think to help children understand that history doesn't have to be boring… History is kind of interesting and fun [would] be a positive and influential role model for children. I was involved with Big Brothers and Big Sisters and I loved it—getting involved with teens. Just to be involved. Get the kids involved."

"I started to believe early that you save society one person at a time."

"I had teachers that really made a huge difference in my life. I wanted to pass that on."

"I'm from a majority African - American community. I knew that I always wanted to do something that would help my community."

— Philadelphia professionals reflecting on a teacher's influence

Question 3: What motivates career changers to choose teaching?

A number of factors, intrinsic and extrinsic, motivate midcareer adults to explore a career change to teaching. Like most teachers, many are driven by ideals—they want to give back to society, or make a difference in their communities or in the world. Some are looking to provide a positive role model to children, either because they themselves had such teachers or because they did not. Others are looking for a pursuit more meaningful than their present employment; and they see in teaching a chance to have a stronger *intrinsic* connection to their work. And some, certainly, are motivated by extrinsic considerations about the "fit" between a career in teaching and other aspects of their lives such as schedules, family responsibilities, and summer vacations. In sum, a variety of motivations come into play when adults change careers to become teachers, or decide to begin a second career in teaching. These factors often operate simultaneously, in ways that evade simple generalizations.

In their study of alternative certification, Johnson *et al.* (2005) found that the midcareer entrants in their sample had left their previous jobs because they were dissatisfied, and that many of them believed that teaching would be more meaningful and fulfilling. One teacher in their study described his prior work in a petrochemical plant as "steady, well-paid and very unfulfilling," and reported that now that he was teaching, he felt like he was "bouncing," because the work was meaningful (p. 25). In a prior study, Johnson *et al.* (1994) reported that a number of their respondents "were unsatisfied with the substance of their work and came to teaching in response to what they thought was a true calling" (p. 24). Many experience the turn to teaching as a kind of "homecoming." This finding was particularly true for women who had previously felt discouraged from pursuing a teaching career by family or societal expectations that they should seek more lucrative, higher-status, or less stereotypically "female" positions (Crow, 1990).

Serow and Forrest (1994), in their interview-based study, found similar motivations. Fifteen of the 40 adult career changers in their sample described choosing to teach for *intrinsic* reasons, looking for greater personal fulfillment. Some actively disliked their prior careers, while others simply found them insufficiently satisfying or purposeful. These entrants saw teaching as a potential source of satisfaction, one that would give meaning to their lives. Many spoke of a longstanding desire to teach.

The same study revealed yet another pattern among delayed entrants to teaching who came to the profession from Troops to Teachers or the Peace Corps Fellows program. For these individuals, the call to service is deeply ingrained; the Troops to Teachers slogan "proud to serve again" captures their desire to give back to the country that also characterized their service in the military or Peace Corps.

A recent survey of the alternative-route participants in federally funded Transition to Teaching programs found that "working with young people" (64%), "value to society" (54%), and "subject matter interest" (49%) motivated program participants "to a great extent." Job security, summer vacations, and work schedule were far less important to their decisionmaking.[12]

Pragmatically Driven Entrants

Not all entrants, however, fit the profile of the idealistic, highly committed career changer with a clear commitment to teaching, a strong sense of vision, or what philosopher David Hansen has termed a "call to teach" (Hansen, 1995). Some career changers were, rather, interested in teaching because of a perceived fit with their lifestyles—for instance, mothers returning to the workforce who wanted a family-friendly schedule. Still other career changers were simply exploring teaching as a possible career prior to making a sustained commitment. These candidates, as Johnson *et al.* have observed, are "trying out" teaching after having already explored several other options:

> [Such individuals] …were unhappy with their jobs and workplaces, explored a number of alternative careers, and eventually chose teaching. Sometimes they realized that they most enjoyed the aspects of their prior job that had resembled teaching, such as counseling clients or training colleagues. (Johnson *et al.*, 2004)

Homecomers, the Converted, and the Unconverted

Seeking to better understand career changers' motivations and challenges in becoming teachers, some researchers have developed "profiles" of candidate types based on frequently observed patterns among delayed entrants to teaching.

Crow *et al.* (1990) examined career changers' perceptions of teaching, their beliefs about their past work, and the degree to

"What a great schedule: not working summers and having all the major holidays, and no weekends, and no on-call."

— A midcareer professional in Philadelphia

"[In industry] you actually are teaching. You find you gravitate toward those opportunities. Inside my company I'm the person that does the training for all our engineering staff."

— Prospective career changer, San Jose

"When I mentioned something about [wanting to be a teacher in high school] my dad said, 'Why would you want to waste your talent doing that?'"

"My husband's family was very much opposed to the choice."

"You look to your parents as being your mentor in a way, as well as to guide you in these earlier decisions. A couple of words, a couple of conversations… it easily got out of my head not to do it."

— Atlanta professionals reflecting on parental

[12] *Transition to Teaching Program Evaluation: An Interim Report on the FY 2002 Grantees*, U.S. Department of Education; Office of Planning, Evaluation and Policy Development; Policy and Program Studies Service, Washington, D.C., 2007 Transition to Teaching TTT teacher survey, 2005–06

which teacher candidates still identified with that prior work. They identified three typical profiles among the teachers they interviewed: "homecomers," "the converted," and "the unconverted."

Homecomers, as described above, had previously aspired to teach but had been thwarted by "negative parental and societal attitudes, market forces, and/or financial obligations" (p. 207). "The converted" had not seriously considered teaching

> …until some pivotal event or confluence of factors caused them to reconsider professional plans….All had worked in other occupations: banking, real estate, art auctioning, insurance, finance, and medical technology; some had risen to relatively high status positions. In choosing teaching, they have repudiated many business values yet perceive some continuity between their past and present occupational experiences. (p. 207)

The last group, "the unconverted," had—like the converted—achieved high status in other occupations. However, they had become disenchanted with teaching and with a teaching career.

In their study of 50 new teachers (half of whom were older entrants) in Massachusetts, Johnson *et al.* (2004) also tried to identify definable career orientations. The research team designated study participants as having either long-term expectations (that is, they anticipated remaining in the classroom for the rest of their career) or short-term expectations (they did not anticipate teaching for more than a few years).

Among the teachers with short-term expectations, the researchers found an "exploring orientation" to teaching and a "contributing orientation" to teaching. The explorers considered teaching a short-term way to check out the profession; if they liked it, they might consider a longer commitment. For example, one explorer who had been a software developer commented, "I'm a career changer. I figured, 'Why not explore a new field?'" (p. 29)

The contributors, on the other hand, saw teaching as a way to contribute to society for some of their professional life. They included both individuals who planned to teach for a few years and then move on, as well as those who planned to teach as the "capstone" to their first career. For instance, a recent college graduate who planned to teach before going to medical school observed, "I knew I wanted to go to medical school. I knew I did not want to go right after college, and so I decided, what can I do that won't pay too badly and that will make me feel like I'm doing something interesting and important?" (p.30) Neither group took their commitment to teaching lightly, these authors note; "[r]ather, they intended to pour themselves into the job, giving it all they had, but only for a few years" (p. 30).

These and other studies underscore the complexities of making the career change to teaching, as well as the need for greater understanding of how career changers' pathways to teaching affect their commitment to and resiliency in their new career. Current large-scale studies (such as Kane *et al.* 2006; Boyd *et al.*, 2006a) are examining issues of retention by program and pathway in New York City, for example, and are beginning to shed light upon key issues that shape teacher retention in that labor market. Such studies will reveal much about how the future plans of career-changing teacher candidates may vary; as well as the roles that preparation, professional development, school cultures and mentoring may play in their retention.

Question 4:
What qualifications do career changers bring to teaching?

Advocates have long argued that teacher candidates who enter the profession at midcareer, or as a second career, bring with them a depth of content knowledge and experience that can be effectively applied in schools and classrooms. Intuitively, this seems reasonable. However, the available research with respect to the intellectual capital such candidates bring and how it is used in the classroom is disappointingly thin. The widely held belief that midcareer teacher candidates and other older entrants to teaching possess stronger content knowledge than traditional-age candidates is not well explored. In-depth research on the nature of their prior work experience is similarly scarce, and what findings *have* been published on the benefit of prior work experience in the classroom are sometimes contradictory. To tap career changers as a human resource for teaching and ensure their success, it is crucial to understand more about what they know and can do before they enter teaching, and also about ways to adapt and apply their knowledge in the classroom.

Academic Qualifications

Various studies have examined teachers' academic backgrounds, including their highest level of education, the selectivity of their undergraduate institution, and their content knowledge (as measured by college subject-area majors). Boyd *et al.* (2002), in an analysis of the database of all teachers in New York State, found that older entrants were actually *less* academically qualified than younger teachers based on standardized test results:[13] "[O]n average, new teachers over thirty years of age are substantially more likely to have failed their Liberal Arts and Science Exam than are younger entrants" (p.6). The authors also found that younger entrants were more likely to have attended selective universities than their more mature peers.

On the other hand, Feistritzer (2005a) reported that a significant proportion of career changers who entered teaching through alternative routes (37% of the sample) possessed master's degrees—almost evenly split between education and other fields. However, a recent report on alternative certification by the Thomas Fordham Foundation (Walsh and Jacobs, 2007), also bemoans the generally low standards of selectivity in alternative-route programs and their tendency to mimic more traditional routes in their program standards and selection criteria. In a foreword, Fordham Foundation president Chester E. Finn and Michael J. Petrilli note:

> [The] Walsh and Jacobs [findings, based on a] …sample of 49 alternative certification programs in 11 states….confirm our fears and suspicions. Two-thirds of the programs that they surveyed accept half or more of their applicants. *One-quarter* accept virtually everyone who applies. Only four in ten programs require a college G.P.A. of 2.75 or above—no lofty standard in this age of grade inflation. So much for recruiting the best and brightest. (p. 9)

In sum, the available research on the academic qualifications that career changers bring to the classroom is quite mixed. However, because very few studies directly examine their qualifications, more research in this area would be helpful. More specific measures—such as college selectivity, grade point average, and scores on state teaching tests—may be particularly useful in understanding more about career changers' qualifications and analyzing variations in candidate qualifications across different programs, pathways, and labor markets.[14] It is particularly important to learn more about the nature and depth of career

[13] Standardized test results, as Boyd *et al.* admit, are an imperfect proxy for assessing academic qualifications.

[14] For example, some estimates suggest that novice science and mathematics teachers in California are choosing alternative preparation routes nearly half of the time, according to a recent study by the California Council on Science and Technology and the Center for the Future of Teaching and Learning's Critical Path Analysis of California's Science and Mathematics Teacher Preparation System.

changers' content knowledge, as well as the degree to which their college major and teaching field are matched (or not) in their first teaching positions.

Work Experience

Research on the specific nature of career-changing teachers' prior work experience is also limited. Some of the descriptive data that does exist suggests that relatively few career changers come from the "platinum" professions of law, medicine and engineering, except in certain labor markets, such as the Silicon Valley.

Conversely, Susan Moore Johnson and her colleagues on the Project on the Next Generation of Teachers noted that their sample of 24 midcareer teachers *did* have substantial work experiences (2004). As a group, the authors suggest,

> … [These career changers] brought with them a familiarity with large and small organizations, for-profit and nonprofit enterprises, entrepreneurial and bureaucratic settings. Some had worked for multiple supervisors, whereas others had been supervisors themselves. They worked freelance or led teams. Some experienced well-defined, progressive on-the-job training, and some devised training for other employees. (p. 25)

However, it is important to note that the authors of this study did not provide breakdowns for how many teachers within their sample had specific types of previous experiences, so it is hard to know which of these experiences are true for which respondents, and how many had what kind of experience.

"There's no flexibility of schedule. You have your curriculum for the day; you have a 9:30 class, a 10:15 class, an 11:00. I could not have such a structured schedule. [In my present job] if I have a 9:30 appointment I could come in a little bit later. In teaching you can't do that."

— Philadelphia Prospective Career Changer

"There are a lot of limitations on a teacher now. I know when I was growing up it seemed that teachers had a lot more flexibility."

"For someone like myself there's going to be a culture shock when I get to the classroom. You want to be prepared to handle that."

— Indianapolis Prospective Career Changers

At the same time, Johnson and her colleagues also point out that work experience is not always a boon to entering teachers, noting that past work experience in other environments can contribute to dismay and discouragement for older teaching entrants. They often "entered their new school expecting a workplace that was better equipped, more flexible, and more committed to their success than the one they found" (p. 25). The disjuncture between their past work environment and current school environment led some in their sample to question their choice to teach, or at least their ability to succeed in less-than-ideal school environments (see also Buckley *et al.*, 2005). The differences between the culture of the schools and the culture of their prior workplaces also could often lead to unmet expectations and other misunderstandings (Konecki *et al.*, 2002; Morton *et al.*, 2006; Freidus, 1992). Freedoms and flexibility that were taken for granted in previous careers—from coffee and bathroom breaks to time out during the day for casual collegial conversation—are often absent in school settings. New teachers who come to the classroom midcareer are sometimes unaware of the daily routines and regimens of their new culture, and the loss of independence negatively colors their experience.

Other studies emphasize that very important corporate skills, beliefs and values are not necessarily those that are effective in teaching. Freidus describes how some of the men in her sample had to overcome habits of authority and control that were highly valued in the corporate workplace but were less acceptable or effective in school and classroom settings.

Experience With Children

As with their work experience, midcareer teacher candidates' prior experiences with children defy expectations. Critics of poor-quality alternative routes to teaching often point to candidates' lack of prior classroom experience and limited background in child development as shortcomings that result in underprepared teachers. On the other hand, Johnson *et al.* (2004) contend that, to the extent that midcareer teachers and other older entrants have raised their own children, they may have more first-hand understanding of children's development than recent college graduates who have not yet raised families. This is yet another area where, confident public claims and widespread assumptions notwithstanding, a significant body of research is lacking. Indeed, there is little substantive data for *any* teachers, career changers or otherwise, on the connections between prior experience with children and success in the classroom.

Notably, issues of student discipline and classroom control were a frequent theme in the focus groups with potential career changers conducted for Woodrow Wilson by Public Agenda. Many of these possible teacher candidates felt daunted by the perceived challenges of student discipline. Their concern translated frequently to a desire for specific programs of preparation and support that might help them understand student and adolescent behavior and manage diverse classrooms.

Summary

While observers have voiced many assumptions about the experiences and qualifications that midcareer and second-career teachers bring to the classroom, the education arena clearly needs better research in this area. Some skills and abilities from the corporate, government, military, and nonprofit worlds may be useful; others may lead to cultural clashes, misunderstandings, and dashed expectations. Some career changers clearly offer both academic qualifications and work experience that can augment the nation's education human resource pool, but it is not clear, from available evidence, whether that resource is being tapped as effectively as possible, or whether there are sufficient incentives and program supports to do so. Both of these questions are explored in the following two sections.

Question 5:
How are career changers being prepared for teaching?

A wide range of programs aim to attract midcareer and other delayed entrants into teaching: hundreds of university-based post-baccalaureate programs, state alternative paths to licensure, programs sponsored by regional and national nonprofits, school district intern programs, and more. Yet, despite the proliferation of programs and sponsors, many of their key features merely mirror those found in programs designed for teacher candidates who enter the profession from college. Application and selection procedures, for instance, rarely assess candidates' work experiences in depth or examine the degree to which they may have had experiences with children. GPA and other entry requirements mirror those of programs designed for traditional-age students, and are set, as Jacobs and Walsh (2007) found, woefully low. Adult learning pedagogies are not routinely employed, nor are cohort group placements or other features that would systematically take advantage of career changers' likely strengths, such as experience and greater maturity.

Efforts at adapting the structure of teacher preparation for career changers have tended to emphasize time-shortened approaches. Such programs focus less on the theoretical or philosophical foundations of education and reform than on the practical realities of classroom management and lesson planning. Many university-based programs for career changers simply telescope the requirements of traditional programs rather than reconceive the curriculum in thoughtful, tailored ways. Some district-based programs dispense with prior preparation in favor of a "boot camp" summer orientation followed by sink-or-swim assignments as teachers of record. While such programs sometimes offer their new teachers additional support through mentoring, there is little evidence that these mentors match new teachers' needs in terms of subject area, grade level, or understanding of adult learner pedagogies. The lack of thoughtful innovation in these areas is all the more striking given the rhetoric of reform that frequently accompanies alternative routes and programs for career changers.

Similarly, despite widespread assumptions that career changers bring to the classroom special subject-area expertise related to their previous professions, few programs tailor coursework to make the most of that expertise. Johnson *et al.* (2005) studied the content of coursework in 13 alternative programs in four states, many of which were designed for older or midcareer candidates. While many of the programs they studied offered coursework in general pedagogy and methods for teaching, few programs offered subject-specific pedagogy. Only one program (Connecticut's Alternative Route to Certification) managed to provide a methods course for every level and subject area. According to Johnson *et al.* (2005), "[C]andidates reported that knowing their subject area did not mean they knew how to teach it. They consistently said that they wanted more ideas about how to teach their subject" (p. 57). Witness this comment from one candidate who had participated in Massachusetts' MINT program: "I wanted to know how I could be the best eighth-grade science teacher, and I don't think that this program specifically helped me be that" (p. 57).

In a similar vein, career changers may also want and need more preparation for working with the underserved students they often face. Among teachers who had entered the profession through alternative routes, Public Agenda (2007) identified a top concern: a desire for better preparation to create curriculum for diverse learners and to differentiate curriculum. (Only "smaller class sizes" ranked higher on these teachers' wish lists.) Notably, 64% of the new teachers from alternative pathways (as compared to 41% of traditionally trained new entrants) felt they were placed in schools with "the hardest to reach" children. These novice teachers felt that few programs provided strategies to help them succeed with the students they were ultimately to teach—a matter of considerable concern.

Johnson *et al.* (2005) also examined the nature of clinical placements in the 13 programs they studied. All the programs they studied required *some* form of clinical experience before teaching (except for California's program, in which participants must already have had a teaching position). The actual requirements for clinical experiences, however, ranged from vague descriptions that did not specify hours

or level—in the case of Massachusetts' and Louisiana's alternative programs—to a specific requirement of 4 hours per day for 4 weeks (Connecticut). Johnson and her colleagues found that while students looked forward to relevant placements in their area, with strong mentorship, the programs struggled—and often failed—to meet those expectations. Cooperating teachers varied tremendously in quality and expertise, and programs were often unable to match placements at the level and in the subject area that candidates would be teaching in the fall.

Participants often felt they could apply little from these preparatory clinical placements to their future classroom teaching experiences. One exception cited by the authors: a Louisiana clinical site paired with a district that expected to be hiring these teachers in the fall. Because district officials had an interest in these candidates, Johnson and her colleagues argued, they were more invested in providing quality, well-matched clinical experiences. Overall, however, Johnson 's team concluded that candidates' clinical experiences rarely paired them with expert mentors in appropriate subject areas, and thus did not provide the kind of relevant, quality learning that many career-changing new teachers say they want.

Finally, many programs include mentoring support for career-changing teacher candidates during their first year as teachers of record, coupled with continued coursework. However, mentoring arrangements for these programs range in intensity and duration, from up to two years and two mentors (offered by NC Teach) to a few visits by a supervisor during the course of one semester.

A Lack of Tailoring

In many ways, the most striking feature of programs for new teachers who have entered the profession at midcareer or later is their lack of difference from more traditional teacher preparation programs for college students and recent graduates. Indeed, some programs admit as much, noting that they have simply collapsed set college coursework into a shortened period of time. One program noted that it had taken "39 semester hours of coursework required in our undergraduate professional preparation program and compact[ed]… it into 24 semester hours" (Konecki *et al.*, 2002, p. 2).

These findings are consistent with recent studies that found more similarities than differences between "alternative" and "traditional" teacher preparation (Boyd *et al.*, in press; Walsh and Jacobs, 2007). Indeed, in a study of 26 traditional teacher preparation programs and two alternative-route programs in New York City, Pamela Grossman and Susanna Loeb of Stanford University and Don Boyd, Hamilton Lankford, and Jim Wyckoff of the University at Albany found requirements for both pathways quite similar; the differences lay primarily in the timing of the requirements. Some institutions simply offered the same program to both sets of candidates—alternative and traditional. As one program director told the authors, "The program is the program is the program—everyone gets the same program" (p. 13). The authors concluded:

> Despite the dramatic increase in the number of alternative route programs and the growth of the NYC Teaching Fellows over the past six years, what is perhaps most striking from this vantage point is the lack of dramatically different arrangements for the preparation of teachers in New York City. No institution has radically restructured teacher education. (p.32)

They attribute the lack of variation in part, to the recently revised, more stringent New York State certification requirements, as well as to the impact of NCATE.

More traditional programs of teacher education that enroll older entrants also seem to vary little from those that primarily serve college-age candidates. Part of the challenge may be that these programs have grown exponentially within the last decade, and faculty and program directors have not had substantial time to design creative, flexible new arrangements for such programs. In addition, Boyd and Grossman and their colleagues have argued that the tremendous pressure on teacher preparation programs to demonstrate their legitimacy has constrained variation—and these findings shed light upon the lack of variation in programs designed for older entrants:

> Increasingly the field is under tremendous pressure to demonstrate its efficacy by documenting how program practices connect to outcomes for teachers and students. Arguably, this increased pressure and focus will likely lead to even greater isomorphism as programs are unwilling to risk legitimacy by trying out new structures. … Programs are likely to look similar to one another because the field struggles to identify the core technologies or practices of the work and to identify and provide evidence of program effectiveness in terms of either teacher practices or student learning outcomes …In the search for legitimacy and with an absence of strong evidence for more effective ways to prepare teachers, teacher education programs are likely to model themselves after other programs, particularly those that are widely acknowledged to be successful and reputable (Boyd *et al.*, in press, p. 36-37)

Challenges in Tailoring Teacher Preparation for Career Changers

Some programs that *have* sought to develop dramatically different structures for career-changing teachers have encountered challenges in tailoring their programs. Teacher educators from several programs noted that they had assumed that the skills and abilities from their midcareer participants' prior work would easily translate into classroom teaching expertise (Konecki *et al.*; Morton *et al.*, 2006). Although some of these career changers easily put their experience and content knowledge to use in the classroom, others required help to determine what aspects of their prior work experiences would be relevant or usable in the classroom, and to understand how best to connect that prior experience with teaching.

Knowles' Seven Principles for Adult Learners

Adult learners…

1. Need to know why they need to know something before they start learning it;
2. Have a self-concept of being responsible for their own decisions and lives;
3. Bring a greater degree of varying experience into the classroom than younger students;
4. Become ready to learn when forced to deal with real-life situations;
5. Are life-centered in their orientation to learning;
6. Are motivated by negative self-concept, inaccessibility of opportunities; violations of principles of adult learning; and
7. Favor being active learners over passive.

(Knowles, 1992, p. 11)

Surprisingly, theories of how adults learn, which could be useful in shedding light upon the specific needs of career changers learning how to teach, are not often present in discussions of programs for midcareer and second-career teachers. Yet there is a substantial body of research on adult learning that could be useful in designing programs for older teacher candidates (see, for example, Knowles' Seven Principles for Adult Learners, outlined in the box at left).

Teacher educators have noted that specific support and preparation is needed not only for career-changing teachers making the transition to the classroom, but also for the mentors assigned to them. Various studies have shown that mentor teachers tend to assume midcareer teachers have more experience and expertise than they actually do have in the classroom (Freidus, 1994; Madfes, 1991; Morton *et al.*, 2006; see also Bullough and Knowles, 1990). As Morton noted,

> A significant theme of this work with mentor teachers [of midcareer teacher candidates] was that they explicitly assumed more from [them] than from undergraduates, and these findings suggest that mentor teachers need to readjust their expectations. A common presumption was that older students well-removed from their baccalaureate degrees and successful in a career field would transition into the classroom with ease—as if it were intuitive and natural. (Morton *et al.*, 2006)

Faculty from the Transition to Teaching program note that choices such as calling their midcareer participants "teachers-in-residence"—a deliberate choice made in order to value the midcareer teachers' experience, age, and expertise—had in fact incorrectly sent the message that these novice teachers were

more experienced than they really were, and suggested to their supervisors and mentors that they might not need as much support (Morton *et al.*, 2006).

Preparation That Appeals to Career Changers

For their part, career changers typically look for programs that offer convenient, low cost, and time-shortened routes to the classroom. However, they also recognize the importance of adequate preparation, particularly for teaching assignments in challenging settings.

> "I'd like to get in, get done. Get in, get busy, and know I'm going to get paid… not take course after course."
>
> ***— San Jose Prospective Career Changers***

In the 2005 study by Johnson and her colleagues, participants noted the appeal of alternative-route programs that offered "faster, less expensive, more practical and more convenient training, sometimes with the promise of job placement" (p. 27). An earlier study reported that the accelerated nature of these programs was very important, in part because they enabled participants to defray some of the direct costs (for instance, tuition, which was sometimes waived) and opportunity costs (such as lost income) of teacher preparation.

Similarly, almost three-quarters of the alternative-route candidates Feistritzer surveyed in 2005 reported that receiving a teacher's salary and benefits (76%) and being able to teach while getting certified (73%) were their main reasons for choosing alternative routes to teaching. Over half of her sample cited out-of-pocket costs (57%) and length of program (57%) as other top reasons (Feistritzer, 2005a). Findings from a recent study of alternative certification in New York City (Loeb and Reininger, under review) in which the participants in *traditional* programs were older than those in alternative pathways revealed a similar set of participant preferences: low tuition, ease of transition from a non-teaching career, and flexibility of classes.

> "If you're better trained, you'll be more successful. Just like in anything else. It'd be culture shock for me to go into a high-needs school. If I went in there totally unprepared, I'd fail… Hopefully, if you got into a rigorous, good master's program … that would help you succeed. That's what this is all about."
>
> ***— Indianapolis Prospective Career Changer***

In Public Agenda's Woodrow Wilson focus groups with prospective midcareer teacher candidates, these views were often echoed. The attraction to teaching as a career was balanced with the need to ensure a steady income stream and maintain health care coverage during the transition. The appeal of time-shortened preparation routes reflected these pragmatic concerns. However, there was also recognition that adequate preparation was key to a prospective midcareer changer's future potential effectiveness and success in the classroom.

Deterrents Specific to Career Changers

Psychological and Social Stressors. For both men and women, issues of career and personal identity are inextricably intertwined with complex and changing conceptions of status, gender, and identity in society at large. Social and psychological stresses naturally accompany substantial life changes, particularly in relationship to a career choice that affects professional status, community standing, and family economic stability. Not surprisingly then, navigating the transition to teaching poses different social and emotional challenges for men and women.

Women transitioning from higher-powered careers may feel a loss of power and prestige that can be reflected in their interactions with peers. Men making the same change may initially be accorded greater approbation, as "caring," even daring. However, over time men may experience greater role conflict about

their decisions to pursue a historically feminized profession, particularly if their choice has meant a reduction in their earning power and role as family breadwinner (Freidus, 1994). At the same time, men entering teaching from other careers can encounter a wariness from administrators and their teaching peers that women who change careers to teach will seldom experience. A man's motives are more likely to be questioned; a woman's decision is more likely to be accepted on face value.

> "It's not that difficult. It's just learning how to write out your lesson plan and that kind of stuff…Obviously, we're all professionals. We have backgrounds. We're intelligent people, and we can learn to teach."
>
> ***— Atlanta Prospective Career Changer (male)***

Finally, Freidus locates an interesting gender dichotomy in male and female reactions and adaptation to teaching over time. Women in her sample were more likely to express doubt at the outset, which was later replaced by feelings of "homecoming," comfort, and confidence that their choice was the right one. *Men* in her sample often talked about their career change in terms of "challenge" and framed it in a quest to conquer the unfamiliar. While they were inspired by this perception, some began to express ambivalence over time. Their doubts, in turn, led some of the men in her sample to adopt what Freidus called a "facade of confidence"—an adaptation which they brought with them from their previous workplace experiences. However, in teaching, she argues, it blocked their receptivity to feedback from colleagues and supervisors—access to the information and support they needed to actually achieve success in teaching.

Salary and Other Monetary Benefits. The role of salary in teacher recruitment and retention is often debated (Johnson *et al.*, 2004). Some argue that it is a critical factor in teachers' decisions to teach, and suggest that increases could draw markedly more candidates to teaching; others contend that midcareer teachers are more motivated by intrinsic reasons, and that money matters very little to them.

> "It's the kind of thing where when you make a decision about changing your career, you make decisions that are financially very difficult in the short term. Especially living in this area where the house prices are so high, you're eating ramen noodles for the first couple of years. I wouldn't say it's a deal-killer, but you certainly think about it—it goes into the equation."
>
> ***— San Jose Prospective Career Changer***

Work by several organizations and research groups (Johnson *et al.*, 2004; Public Agenda, 2007; see also Johnson and Liu, 2004) suggests that salary plays a very complicated role for all teachers, but especially for career changers. It is rarely identified as the most critical incentive for most career changers, although low salary often serves as a counterbalance to the intrinsic motivations and rewards that prospective career changers typically espouse. It can also prove a formidable barrier for older entrants who must "make mortgage and car payments, pay for children's education and set aside savings for retirement" (Johnson *et al.*, 2004, p. 55). They describe several older entrants' discussions of salary:

> Midcareer entrants, such as Esther and Bernie, compared their salaries with what they had actually earned before switching careers. Esther, who said her salary could easily be $60,000 if she returned to engineering, noted, "I'm making less than I did when I started [working as an engineer] in '83."…Bernie had taken a $40,000 annual pay cut when he left his position as a corporate lawyer to enter the classroom. Despite his conviction that teaching is meaningful work, he was burdened with his doubts about his decision, doubts that were driven primarily by money. (p. 54)

These issues can generate considerable tension if the new teachers feel that the teaching is not gaining them the intrinsic rewards they had hoped for. Thus, the authors note:

> Pay can take on heightened importance as individuals contemplate their future financial needs or encounter working conditions that make it difficult to gain the personal rewards for which they entered teaching. Ultimately, many respondents worried about whether they could afford to teach over time and were uncertain, therefore, if they would stay in the profession long-term. (p. 54)

"I think more than low salary is the difficulty that teachers have. There's always a strike on TV with teachers. They have to fight tooth and nail to get something. Who wants to go through that?"

— Philadelphia Prospective Career Changer

However, not all career changers take a pay cut when they make the transition to teaching. Some research suggests that the majority of older entrants to the profession actually receive a pay raise (Humphrey and Wechsler, 2007; Serow and Forrest, 1994). In their study of candidates in alternative certification, many of whom were midcareer entrants, Humphrey and Wechsler (2007) found few in their sample who took such cuts: "We found that 59% of participants in fact received a pay *raise* by becoming teachers" (p. 14). Moreover, Johnson *et al.* (1994) found that seven of their group of 24 midcareer teachers did not take pay cuts when they entered teaching; three of them said they earned a similar salary and four reported earning more as teachers than in their previous professions. However, these midcareer entrants did not necessarily feel that the salary was appropriate for the work. One of the respondents who was making more than she had in the past "still characterized her teaching salary as a 'pittance' considering the increased workload and responsibilities she now had" (p. 55).

Some programs attempt to alleviate at least some of the stress of lowered salary for their candidates with other monetary incentives such as signing bonuses, grants, and stipends. However, in isolation, these incentives are rarely effective in retaining teachers where they are most needed.

For instance, some research examined the impact of signing bonuses such as those offered by the MINT program in Massachusetts, which included an unprecedented $20,000 signing bonus (Johnson and Liu, 2004; Fowler, 2003). In their study of 13 individuals entering teaching through MINT, Johnson and Liu (2004) found that the chance to avoid the "opportunity costs" of loss of income coupled with the potential out-of-pocket costs for tuition was much more important to the participants than the signing bonus. Johnson and Liu argue that in fact, those costs could have greatly exceeded the $20,000 amount they received as a bonus. As they contend, "the bonus money itself was a relatively weak incentive. A much more powerful extrinsic incentive, according to virtually all participants, was the program's accelerated route to certification" (p. 225).

"I think it's absolutely true that teachers today can't be fulfilled because they're so frightened of misspeaking and getting a lawyer on their back. You're not free to make your individual impact as a teacher."

"[It's also] the lack of flexibility, the lack of scheduling. Basically, the Board sets the tone for the district. You have a certain curriculum. You don't have the freedom to teach what you want to."

— Philadelphia Prospective Career Changer

Indeed, they found that while the bonuses helped make some teachers' transitions to teaching easier, ultimately, they played "virtually no role" in teachers' decisions about whether or not to remain in the profession. Rather, the single most important influence was the "intrinsic rewards of teaching and the respondents' success in realizing them" (Liu, Johnson and Peske, 2004, p.229). Liu and his colleagues further point out that working conditions in schools had the greatest impact upon teachers' ability to succeed or not in their aims.

Research by Clark Fowler on the MINT program also indicated that monetary incentives were not at all effective in retaining teachers in hard-to-staff schools. Likewise, a recent Public Agenda survey of new

teachers from three alternative routes (Teach for America, the New Teacher Project, and Troops to Teachers) found that the majority (71%) "would rather work in a school where 'administrators gave strong backing and support' compared with a school where they could earn more" (Public Agenda, 2007, p. 27).

Geography. Location—both of the preparation program and of the first teaching placement—is one of the program features that matters most to candidates who enter teaching at midcareer (Boyd *et al.*, 2005; Johnson *et al.*, 2005). For instance, Johnson and her colleagues argue that one of the major draws for candidates in alternative programs was the relative convenience of the program—the degree to which the program was designed to be close to where candidates lived and worked. A similar "homing instinct" plays a role in teachers' choices of where to teach. Research by Boyd *et al.* (2005) reveals that most teachers in New York State take jobs very close to their hometowns (the towns where they attended high school). In fact, Boyd's team found that 61% of teachers entering teaching between 1999 and 2002 in New York State took jobs within just 15 miles of their hometown; 85% took jobs within 40 miles of their hometowns. These findings held true for both older teachers (born before 1963) and younger teachers (84.6% and 84.8% respectively).

> "I would think staying in place would be pretty important…if you have to move that's a major financial hardship."
>
> ***— San Jose Prospective Career Changer***
>
> "Relocating? I wouldn't be willing to do that with an established family."
>
> ***— Philadelphia Prospective Career Changer***

Taken together, these findings suggest that geographical convenience/proximity is as important to career-changing teachers as it has historically been in the profession as a whole, with "teaching close to home" a strong pattern in teacher labor markets.

Summary

Certain features of teacher preparation seem consistently important to prospective career changers: speed of preparation, help with transition into teaching, cost, and location. However, the appeal of a "fast" program sometime conflicts with career changers' desire for solid preparation and more supportive placements as a foundation for success in their classrooms. Older entrants are particularly interested in good teaching placements, practical support, and subject-specific preparation. Understanding more about what aspects of preparation career-changing teachers are most interested in—and what aspects they would be willing to forgo—could help create new approaches to preparation that appeal to these teacher candidates, make efficient use of time, and sustain a commitment to quality.

Question 6:
What is the classroom experience of midcareer and second-career teachers?

Since teacher preparation and retention programs designed specifically for career changers are relatively new, the available research on these teachers' experience in the classroom is also still relatively new and is beset by both methodological difficulties and substantive limitations. Three issues need particular consideration and evaluation: retention (staying in the profession), impact on student achievement, and ratings of principals and supervisors of these teachers.

Retention

On the question of whether career changers who enter teaching through alternative routes stay in the profession longer than their traditional-aged counterparts, the evidence is mixed, at best. Some studies of alternative candidates have examined teachers' intentions to stay or leave (Feistritzer, 2005a; Humphrey and Wechsler, 2007; Public Agenda, 2007). However, as Humphrey and Wechsler point out, looking only at teachers' future plans is limited by the fact that "intention does not always translate into retention." Other studies have been able to track the retention of alternatively prepared candidates (Boyd *et al.*, 2006; Clewell and Villegas, 2001) for several years out, and the Boyd *et al.* study uses a statistical model to estimate future attrition and retention.

Boyd and his colleagues, for instance, found (2002) that, in the first few years of teaching, recent college graduates and career changers made similar choices to leave or stay in the classroom. After one year of teaching, figures for both groups were identical: 13% had left the New York City school system and 32.6% had left their particular school. The researchers did find small differences between the two groups of teachers ten years after they entered the profession: By that point, 53.5% of the younger teachers had left the system, while only 45.4% of the career changers had left—a finding, as Boyd *et al.* note, that may also reflect mobility patterns for younger and older workers in the general workforce.

The same research team also examined variations in teachers' retention rates by their pathway to teaching. Based upon a series of factors, Boyd *et al.* (2006) predict retention rates for teachers entering through two alternative routes—Teach For America and the New York City Teaching Fellows program—and for teachers entering through traditional "college-recommended" routes.[15] They predict that, after the first year, 9.6% of New York City Teaching Fellows will leave teaching—a rate substantially lower than the first-year attrition rate among college-recommended teachers.[16] The same model, however, predicts that "the relative attrition of Teaching Fellows grows so that it is roughly comparable to college-recommended teachers after two years and exceeds them after three and four years" (p. 208). Boyd's team also reports that, while teachers entering the profession through TFA "are relatively more likely to return in the second year, the retention of TFA teachers beyond the second year falls off dramatically, relative both to the traditional routes and to the Fellows pathway."[17]

Significantly, while the TFA candidates in the 2006 Boyd study were by far the youngest teachers, the Teaching Fellows participants were not necessarily the oldest. As this observation suggests, retention rates analyzed by pathway to teaching cannot be expected to fully shed light upon retention patterns by age; to understand fully the retention of older teachers within different pathways requires further research.

Clewell and Villegas (2001) also found that the graduates of the Pathways to Teaching Careers program they studied were more likely to stay in teaching than all beginning teachers, based on data reported by other researchers. For instance, they report that, among Pathways graduates who had completed the program three or more years prior to the time of the 2001 study, 75% were still employed as classroom teachers.[18] They also report differences by pathway: Among the four program "strands" of the Pathways to

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[15] They estimate a conditional logic model predicting whether a teacher leaves teaching the following year that takes into account pathway, experience dummies, the interaction of experience and pathway, year fixed effects, and school fixed effects. They point out that "these estimates are based upon within-school differences in teacher attrition rates and hold constant any effects that vary between schools" (p. 208).

[16] They found that the difference between the alternative routes and college-recommended teachers is significant but not as great as prior to controlling for school fixed effects.

[17] After four years, fewer than 20 percent of TFA teachers are predicted to remain teaching in New York City public schools.

[18] The remainder were either in education but not teaching, or were no longer employed in education.

Teaching initiative, those who had entered teaching through the strand for paraprofessional and/or emergency certified teachers (and who also tended to be older) were more likely to have stayed in teaching than the younger teachers who had entered through the Peace Corps Fellows strand.[19]

Some studies have looked not at actual retention data, but at participants' future plans. For instance, Humphrey and Wechsler (2007) find that "large percentages" of participants in the alternative programs they studied intended to remain in teaching for ten years. In five of the seven programs they studied, at least half of the participants planned to be in teaching in ten years. They note that, while intentions may well differ from eventual decisions, "the data does suggest considerable long-term commitment" among these participants (p. 504). They further comment that while some participants viewed teaching as an opportunity for "career exploration," a portrayal of alternative participants as those with only a "superficial interest" in teaching ignored the complexity of personal decisions and commitments.

Similarly, Feistritzer (2005) reports that, of more than 2,600 alternative participants surveyed, 62% expected to be teaching in K-12 schools five years out. Older teachers, she found, expected to be teaching for longer than did younger teachers: "Fewer than half (48%) of the teachers surveyed between 18-24 years of age and 51% of those between 25-29 expect to be teaching K-12 five years from now, compared to 64% of those between 30-39 years of age, 69% of those in their 40s and 70%s between 50-59 who plan to remain in teaching for at least five more years" (p. 32).

By contrast, Public Agenda's survey of 184 alternative route participants indicates that nearly two-thirds of the teacher candidates in their sample planned to leave teaching after only a few years. Some 34% expected to leave within the "next year or two," with another 29% expecting to leave within three to five years. Only 14% expected to stay in teaching more than 10 years. However, the authors do not report the respective numbers of participants from the each of the three different programs surveyed—Teach For America, the New Teacher Project, and Troops to Teachers. Given other research (Boyd *et al.* 2002; Kane *et al.* 2006) which suggests that TFA teachers rarely continue to teach after fulfilling their two-year commitment, inclusion of TFA teachers may have contributed to overall estimates of quicker exits from teaching.

Finally, surveys of participants in federally funded Transition to Teaching programs (TTT 2007) found a significantly *greater* proportion of these career changers undecided about staying in teaching than their counterparts who had entered teaching through traditional routes (20% versus 14%). This assessment also identified a significant difference between the percentage of TTT teachers who anticipated teaching until retirement and the proportion of traditionally trained teachers with the same expectation (15% versus 24%).

Hence, there is some evidence that older teachers prepared through alternative routes both intend to remain in teaching longer and *do* remain in teaching longer than younger entrants. However, older teachers, and indeed all teachers entering the profession through alternative pathways, need to be tracked over the long term in order to determine whether these retention patterns hold true. In addition, researchers and policymakers need more information on *why* some older teachers plan to stay longer and why some younger teachers do not, so that the relative influence of various factors—placement, preparation, prior experience, and other factors—can be evaluated.

Classroom Impact—Ratings and Outcomes

Whether or not teachers remain in teaching is really only important if they are effective in the classroom and are making a difference for their students.

Some studies have used principals' or supervisors' ratings of teachers' classroom teaching. For instance, Clewell and Villegas (2001) asked both field supervisors and principals to rate the effectiveness of

[19] However, the study did not report whether these differences between retention by program were statistically significant, so it is difficult to determine the degree to which these differences might matter.

Pathways to Teaching Careers participants in four main areas of expertise: a) organizing content knowledge for student learning; b) creating an environment for student learning; c) teaching for student learning; and d) professionalism. Overall, they found that Pathways participants' scores in all these domains were higher than for a typical novice teacher in the same school.[20] While candidates from the program's Peace Corps Fellows strand were rated highest across all dimensions, Clewell and Villegas were unable to calculate significance for that population given the small number of participants. All ratings for the emergency certified and paraprofessional candidates were statistically significantly higher. In particular, Pathways graduates were rated particularly strong in creating classroom environments, but the raters indicated that these teachers might need more support in creating scaffolding for students' future learning.

Such ratings clearly have limitations and involved potential complications, such as power and status differences between principal and teacher. It is also possible, in the Clewell and Villegas study, that principals and other observers, consciously or not, may have been inclined to view Pathways to Teaching Careers participants positively, given their support for and/or need for the program.

By contrast, some research seeks to link teacher characteristics (such as the pathway into teaching) directly to student outcomes, as evaluated by such metrics as standardized test scores. Such research remains relatively rare, and standardized test scores, though still the most accessible outcome measure of student learning, have their shortcomings. Nonetheless, this approach seems promising.

For example, Boyd *et al.* (2006b) report some evidence that teachers who enter New York City elementary schools through alternative pathways do not teach mathematics or English language arts (ELA) as well as college-recommended teachers during their first year. Their mathematics teaching does improve differentially between their first and second year, and they are approximately equivalent to college-recommended teachers during their second year.

New York City's middle school teachers who enter through alternative routes do better than those who teach in elementary schools. According to Boyd and his colleagues, Teach for America members do a better job of teaching mathematics to middle school students than either temporary-license or college-recommended teachers during their first year, while New York City Teaching Fellows perform at least as well as these teachers. By their third year, the NYC Teaching Fellows appear to outperform college-recommended and temporary-license teachers. The middle school teachers' ELA results are not as strong, with students of both NYC Teaching Fellows and TFA teachers in their first year showing somewhat lower achievement gains than college-recommended or temporary-license teachers. NYC Teaching Fellows show differentially strong improvement in teaching between their second and third years; with three years of experience, they perform about as well as college-recommended teachers who are three years in, and they exceed the performance of temporary-license teachers.

While there are some discrepancies regarding Fellows' performance in math between findings by Boyd *et al.* (2006) and Kane *et al.* (2006), using similar data on teachers in New York City, Kane's team also comes to some similar conclusions. On average, Kane *et al.* (2006) found that the students assigned to NYC Teaching Fellows performed similarly to students assigned to certified teachers in math, with slightly lower (-.01 standard deviations) in reading. They point out, as do Boyd *et al.*, that the NYC Teaching Fellows' performance improves over time: "[T]his average difference belies somewhat larger gaps among novice teachers (-.02 standard deviations) and no differences between [NYC] Teaching Fellows and certified teachers with multiple years of experience. This is because [NYC] Teaching Fellows have somewhat higher average returns to experience than certified teachers in generating reading gains at the beginning of their careers" (p. 41).

[20] p=.0001. However, significance values could not be calculated for the Peace Corps candidates because of the small number of participants.

At the same time, it is important to keep in mind the fact that alternative pathway candidates (at least in New York) are not necessarily the older or oldest teachers. Thus, neither set of findings fully illuminates the effectiveness of career changers as teachers in these settings. More research is needed to address the impact of older teachers upon student learning, and, given the unique labor market of New York, it will be important to include research in other states and cities.

In sum, the research on career changers and their effectiveness as teachers, particularly with regards to student outcomes, remains in its infancy. While some studies suggest that observers rate candidates from alternative route programs more highly than typical college-recommended novice teachers, these studies are limited. In addition, ratings focus upon classroom practices but do not include the examination of student work or student outcomes that may provide even more useful insight into teachers' impact on student learning. Those studies that *have* examined student outcomes for new alternative-route teachers suggest that, while candidates do not perform as well in their first year, they catch up and perform similarly to those entering through traditional pathways after one or two years. In this available research, however, it is often difficult to disentangle findings on midcareer and second-career teachers' classroom experiences from observations of other alternative route candidates (such as TFA recruits and paraprofessionals) who bring different patterns of prior experience and have different expectations of career commitment.

PART TWO:
IMPLICATIONS—SOME KEY THEMES

Key Themes

From this analysis of existing data and new Public Agenda findings, seven key themes emerge:

- challenges of definition;
- assumptions about the work experiences career changers bring to teaching;
- prior work experience as both a strength and an obstacle;
- the difficulties of tailoring teacher preparation programs to midcareer and older entrants;
- the personal stresses unique to career changers;
- the uniqueness of labor markets; and
- the need for greater research on these midcareer and second-career teachers.

Key Theme 1: Challenges of Definition

The greatest source of information on career changers entering teaching comes from research on alternative-route teacher preparation. However, not all alternative route participants or older entrants to traditional teacher preparation programs are true career changers. Advocates of alternative pathways often point to the scientists, lawyers and businesspeople who might consider teaching but are dissuaded by the heavy requirements of teacher preparation (Finn and Madigan, 2001). Yet not only do fewer such midcareer professionals enter teaching than the term "career changer" might suggest, teaching also appears to attract a far wider variety of later entrants than is popularly understood.

The research suggests that there may be at least three distinct groups of later entrants whose demographic signatures, needs, and potential for contribution to the profession may differ. The first group are *delayed entrants*, candidates aged 24-29, who did not enter teaching right out of college but also may not have actually pursued another career in depth. The second group comprises true *midcareer teachers* who did in fact pursue a career (or set of jobs) and are in their 30s and 40s or even 50s. The last group, *second-career teachers*, have pursued a career for a long time, and are now considering pursuing teaching as a second or "encore" career. These candidates tend to be in their 50s or even 60s. Policies and supports need to take into account the needs and strengths of these different types of candidates.

Moreover, since even these larger categories contain different subgroups, research that attempts to develop more granular profiles of types of candidates may prove particularly helpful to policymakers and educators. This research, which moves beyond demographic description to more holistic clusters of attributes and beliefs, could be especially useful in attempts to develop selection, recruitment, preparation, and induction strategies for new teachers.

Work by Johnson *et al.* (2004) and Crow *et al.* (1996) demonstrates the utility of such profiles. For instance, it may be helpful to distinguish among those who feel teaching was something they always wanted to do and for which they feel a sort of "homecoming," those who are exploring, and those who know they want to teach briefly, make a contribution, and then move on to something else. Differentiating between extrinsically and intrinsically motivated prospective teachers may also lead to more effective recruitment and selection procedures.

Key Theme 2: Assumptions Regarding Work Experiences

Just as the research suggests that not all midcareer and second-career candidates fit the stereotypical profile of the learned professional from medicine, law, or engineering, the assumption that *all* midcareer candidates come with strong content knowledge and skills from the workplace may also be overstated. Surveys conducted by Feistritzer (2005) and Humphrey and Wechsler (2007) found few candidates with degrees in law or business. Indeed, Humphrey and Wechsler, along with others (such as Johnson *et al.*, 2004) found that a significant percentage of the career changers they studied received a *pay raise* when moving into teaching—suggesting that these new teachers may not previously have had the kind of high-paying, high-status professional experiences that many imagine such candidates to have. It is worth noting, however, that at least some of these new teachers-of-record had been teachers' aides and support staff in schools and had entered teaching through paraprofessional career-ladder programs. Past research suggests that, in fact, candidates vary in the skills, abilities and expertise they bring from their previous workplaces, depending upon the nature of their work (Serow and Forrest, 1994).

The assumption that these candidates have little or *no prior* experience in classrooms or schools may also be misleading. Humphrey and Wechsler (2007) actually found a substantial number of the candidates in the alternate route programs they studied, designed for older entrants, had substantial experience in schools as substitute teachers or teachers' aides. Thus, while career changers do not always have the kind of work experience and subject matter expertise often anticipated by advocates of alternative certification, it may also be the case that they have other experiences equally important for classroom teaching.

Key Theme 3: Prior Work Background—Strength *and* Obstacle

Similarly, observers tend to idealize the work experiences and abilities that career changers can bring to teaching, such as knowledge of organizations, management skills, time management expertise, experience working in teams, and motivational skills (Johnson *et al.* 2004; Freidus, 1994, 1996). While such skills could be extremely useful for teaching, these and other workplace abilities and experiences can also clash with the skills and dispositions needed in teaching, or hinder candidates' ability to take advantage of feedback and support as novices.

Some research suggests that values from prior work may, in fact, make it difficult for midcareer entrants to learn effectively. The men in the study by Freidus (1992) had valued authority, control, and knowing the right answer, and those characteristics had helped them become very successful in their work. They assumed that such skills and abilities would be equally important and critical to their success as teachers. Yet when they needed to develop more participatory classrooms and be effective with students, they struggled, feeling out of control and vulnerable. They did not feel successful in their work and saw others achieving more success than they felt they were.

Furthermore, career changers' prior work experiences can lead them to feel discouraged and surprised by conditions in some schools, such as lack of supplies, little communication, no phones in classrooms, and outdated technology. The bureaucratic demands and isolation that many new teachers feel can be particularly challenging for midcareer entrants accustomed to more streamlined organizations, more team-based work, and more collegial environments.

In addition, other literature (Morton *et al.*, 1998) cites the "cultural clashes" that midcareer entrants to teaching can experience. For those career changers who had relative freedom and flexibility in prior work situations, school bureaucracy and a lack of independence may feel like a step backwards. Having been in professions that welcomed and required critique and open dialogue, such new teachers often continued to

act in those ways in their schools, with their cooperating teachers. While some mentors found it refreshing, others felt that these new teachers were being disrespectful and overly critical.

Key Theme 4: Difficulty Tailoring Preparation to Older Entrants' Needs

Not surprisingly, the literature frequently cites the challenges of tailoring teacher preparation programs to the skills and abilities of more mature candidates. Some university and clinical faculty assume that midcareer and second-career candidates' skills and abilities will enable them to transition smoothly into their work as teachers, and therefore underestimate the challenge of this transition. The shift is not, in fact, an easy one for many career changers; more help and scaffolding may be needed to bridge the cultures of the world of work outside of education and the world of classrooms, children, and schools.

Researchers found that teacher educators needed to clarify what aspects of candidates' prior work experiences would be relevant or usable in teaching, and to make explicit for career changers the differences between their prior professional cultures and the culture of schools. Some had made mistakes such as calling their midcareer participants "teachers in residence" in order to value their experience, age and expertise, but in so doing had wrongly sent the message that these novice teachers were more experienced than they really were. Finally, few teacher preparation programs for career changers examined in the research had written about their use of adult learning theory as a framework, and few discussed how they had made their programs substantially different in ways that successfully built upon the backgrounds, skills, and abilities of their participants.

In addition, while many programs attempted to respond to career changers' needs for practical advice and information, due to the demands of time, these choices resulted in little (if any) foundational knowledge for teaching. Furthermore, although career changers wanted practical support, they also sought more specific preparation to teach in their subject area, as well as more clinical experience. Many programs provided preparation in general pedagogy, but rarely in subject-area-specific pedagogy. One study suggested that even the entrants themselves felt that their content knowledge was not necessarily adequate for teaching their subject. And few programs provided appropriate clinical training; while many older entrants looked forward to their practice teaching experiences and expected to learn a great deal from them, they often were placed in classrooms that did not match their field or grade level—and did not always have opportunities to witness and observe strong teachers at work.

Key Theme 5: Personal Stresses on Career Changers

A small but intriguing vein in the literature sheds useful light upon some of the different stresses midcareer teachers may experience as they pursue the call to teach. For instance, both men and women find teacher highly stressful as a second career, not only for financial reasons but also because the new position raises questions regarding their own efficacy and potential to succeed. Men in Freidus' (1992) sample, for example, found their roles as "student-teachers" conflicting with their role as provider; women in her sample sometimes felt invisible and powerless in their roles as teachers.

In addition, much of the research on the role of salary and incentives for candidates changing careers to teach suggests that salary plays a complicated role in their transition. While most agree that signing bonuses and other financial incentives are not what bring them into teaching, they are equally clear that financial concerns are nonetheless salient. Most career changers have families; concerns about finances and lifestyle are critical factors in their personal and family decisionmaking about a possible change of career. They face worries about keeping up with mortgages, health insurance, and tuition and child care costs, as well as with the Joneses.

Beyond these pragmatic concerns, most career changers want to be successful as teachers—and worry that school conditions, time-shortened training, and lack of support may prove significant barriers to achieving it. They have made a career change, or a commitment to teaching, on the basis of much thought and careful planning, and the concern that they may not be effective or good teachers is particularly unsettling. They may not remain in teaching unless they feel a sense of success with their students. Coupled with evidence that new teachers are often assigned to the most difficult teaching situations—a recent report by Public Agenda suggest that 64% of new teachers from alternative programs are placed with those students who are most difficult to reach (Public Agenda, 2007)—these concerns argue for more thoughtful and robust preparation and support.

Key Theme 6: Uniqueness of Labor Markets

While a state-by-state perspective does suggest greater overall numbers of older candidates entering teaching through alternative programs, different locations show marked and important exceptions, which indicate that labor markets may differ significantly across districts and geographies. New York, for instance, is among those states with the *youngest* entering teachers. It consistently hires more than 10,000 new teachers a year, making it one of the nation's top states in terms of new teacher hires (Feistritzer, 2007). Data from New York City suggests, surprisingly, that alternative pathways—in comparison to the traditional pathways to teaching—did *not* necessarily attract older candidates (Loeb and Reininger, under review). However, New York stands out in this regard, as most other states have substantial numbers of older candidates in their alternative pathways. Such findings serve as a reminder that teacher selection, recruitment, and preparation efforts must take into account variations in labor markets across different regions.

Key Theme 7: The Need for Greater Research

Overall, the paucity of research on career changers is surprising. Key questions—about who these older entering teachers are, how many are being recruited, what qualifications they bring to teaching—remain woefully underexamined. Surprisingly, while their subject matter expertise and past work experience is often hailed as central to their ability to teach, these factors seem the least examined.

As more and more programs are designed to appeal to these participants, the field of teacher preparation needs more research to examine and adapt the nature of these programs, their relationship to the needs and qualifications of career changers, and the most effective structures and designs for learning. Much more must be understood about how career changers teach in classrooms after their preparation, and about how programs designed for them meet (or do not meet) their needs. Finally, important gaps between research literatures remain—for instance, the literature on adult learning is rarely connected to the design and implementation of these programs.

PART THREE:
RECOMMENDATIONS—
HOW CAN WE MAKE MOST EFFECTIVE USE OF CAREER CHANGERS AS A RESOURCE FOR TEACHING?

What Should Teacher Educators Do?

Midcareer and second-career teachers want to be effective in the classroom. Their success hinges upon excellent, targeted teacher preparation as well as positive, well-supported initial teaching experiences. Specifically, teacher preparation programs need to take the following five steps:

I. Use targeted selection processes that identify the strongest candidates.

As this review of the literature has made clear, career changers and other delayed entrants are by no means a uniform group. Their strengths, weaknesses, and needs differ. Some are coming from professions outside of education, some have already been working in schools, and others are "late deciders." Some will be fully committed to a teaching career, while others will be exploring a possible longer-term commitment. Some will be facing considerable cuts in pay or status, while others will be moving from less lucrative positions up the salary and status ladder.

Faculty and administrators in preparation programs—whether based in universities, districts, or nonprofit organizations—need to draw upon these different profiles of older entrants in both identifying strong candidates and weeding out those who will not necessarily make a commitment (especially those who may be chronic career switchers). Focusing on candidates who see teaching as a "calling" or "homecoming" may be especially helpful.

Because traditional means of assessing candidates may disadvantage career changers who may have hit their stride after college, programs need to consider not only conventional markers of academic ability, but also nontraditional means of evaluating potential. These may include: assessments of prior performance; letters of recommendation from employers and civic leaders; essays describing previous experience with children or in schools; performance in individual or group interviews (such as the Haberman interview); and other evidence of community commitment, resiliency, leadership capacity, and willingness to teach in underresourced settings.

Requiring candidates to spend some time in schools, simply observing or tutoring, before beginning their teacher preparation—as some programs for midcareer entrants do—may not only help provide a basis for their initial learning about the profession, but also help program directors weed out unsuitable prospects. Finally, teacher preparation programs should recruit locally, to capitalize upon the common interest of new teachers (in general) and midcareer teachers (in particular) in teaching close to home. Recruiting locally has the added advantage of enabling career changers to draw upon existing personal and professional networks for support during their transition to teaching.

II. Design programs that take into account the specific needs of adult learners.

Career changers have different learning strengths and needs than their younger counterparts; teacher preparation programs must respond to these. In particular, older adults may feel significant emotional stresses when they become students again after having successful working careers or raising families. While they may have considerable expertise in one area, they remain novices in teaching. Mentors, supervisors, and other teacher education faculty need to learn how to recognize,

respect, and take advantage of the expertise these individuals bring, even as they provide the support these novice teachers need. Peer teachers who have recently switched careers or who have entered the workforce at an older age themselves may be especially helpful in providing support.

III. Ground pedagogy in content and the needs of diverse learners.

While career changers want practical advice and assistance, they also want to be good teachers in their subject areas. Programs need to be designed around pedagogy in the subject areas. Too often preparation programs offer courses in pedagogy in general, without sufficient (if any) coursework in the specific subject areas in which the candidates are gaining certification.

Moreover, older entrants recognize the challenges of the diverse learning needs found in contemporary classrooms and want to know how to address them effectively. Helping career changers develop more strategies to differentiate curriculum and to work with diverse students will enable them to experience more success.

Finally, career changers' learning experiences need to be grounded in practice. For example, asking candidates to assess a student's reading ability or evaluate student work samples can offer effective opportunities to learn about teaching, since such activities are close to the actual work of teaching. At the same time, such experiences also lend themselves to the introduction of key theoretical principles of learning. By creating coursework and assignments that are grounded in practice, programs can not only respond to older learners' need for practical knowledge, but also couple their practical experiences with pedagogical theory.

IV. Provide strong clinical experiences in schools that fit candidates' future plans, integrating theory and practice.

Career changers look forward to their clinical experiences and have high expectations for what they can learn from them. Providing strong, effective teachers as mentors will ensure that candidates encounter good teaching and have opportunities to observe successful, innovative, and culturally sensitive examples of practice.

In addition, new teachers' clinical experiences, coursework, and mentors should align with the grade levels, subjects, and students that they teach. Too often, mismatches in these areas undermine the effectiveness of candidate preparation and, as a result, reduce prospects for success in the classroom.

V. Assist with appropriate job placement in schools that make efforts to support novice teachers.

One of the key elements that may keep older entrants in teaching is a sense of success. If they, along with other new teachers, continue to be placed in the most difficult conditions during their first years in the classroom, they may become discouraged and disappointed, and are likely to consider leaving teaching.

To address this problem, teacher educators need to provide purposeful induction support. This may include internal supports, such as mentoring, adequate preparation time for each teaching assignment, and the assignment of fewer courses to these new teachers. Preparation programs can also work with their partner schools to avoid assigning the most challenging courses and children to new teachers. Additional help may be offered by providing support groups of adults who have made similar transitions, or maintaining networks of program graduates in online support communities or other real-time connections.

VI. Ensure that programs of teacher preparation are organized to promote students' success as learners.

Achieving many of these goals may require considerable reengineering of current programs of teacher preparation. Strong arts and science faculty and education school faculty must be involved closely in the design and delivery of programs that better integrate content and pedagogy, theory and practice. Stronger collaborations with districts are needed, with accomplished teachers serving as mentors, cooperating teachers, and clinical faculty. District-based programs need stronger partnerships with universities to ensure that preparation remains vitally connected to advances in disciplinary learning, as well as insights into neurodevelopmental processing, artificial intelligence, and technology that can provide new teaching and learning tools and expand classroom horizons.

What Should Policymakers Do?

In turn, policymakers eager to tap the pool of potential career changers for teaching need to understand that, while the call to service resonates with many candidates, the desire to serve must be matched with adequate incentives, appropriate and thorough preparation, and continuing supports to ensure classroom effectiveness. Policymakers should support programs that use rigorous selection processes, as well as those that build upon key understandings of the needs of adult learners. Specifically, policymakers should:

I. Design incentives that respond to the needs of the most desirable candidates.

While many career changers are willing to accept a lower salary and even the loss of future salary increases, high initial costs and other financial burdens associated with the transition may prevent some from making the change to teaching in the first place. Therefore, career changers need the opportunity to earn a salary or significant stipend during preparation, and can greatly benefit from loan forgiveness programs and/or lowered tuition and fees.

> Policymakers eager to tap the pool of potential career changers for teaching need to understand that the call to service is one that resonates with many candidates, but the desire to serve must be matched with adequate incentives, appropriate and thorough preparation, and continuing supports to ensure classroom effectiveness.

While signing bonuses and low tuition costs provide some transitional assistance, policymakers also need to consider other means of assistance, such as health insurance coverage or help with the costs of child care, that can address the family and personal concerns of many mid- and second-career teachers. Such incentives recognize the trade-offs between cost and benefits that candidates must make early in their transitions. At the same time, while many older entrants are willing to make some long-term sacrifice, additional incentives such as salary increases or supplements and pension support for retirees can help attract and retain the most promising teacher candidates and encourage them to develop their skills.

II. Support high-quality teacher preparation.

Despite the fact that career changers do want low-cost programs that enable them to earn a salary during their transition, they also need and want excellent preparation. While they want to be prepared to teach well in their subject areas, often they do not feel they get adequate preparation. While they expect to learn a great deal in their clinical work, they often feel shortchanged and

disappointed by those experiences. While they recognize the range of learning needs in their classrooms, they often feel unprepared for the challenges of differentiating curriculum for their students.

Policymakers should support and fund high quality programs—whether alternative or traditional—that are built upon an understanding of adult learning; that emphasize content-based pedagogy and the preparation of curriculum for diverse learners; that engage candidates with faculty, mentors, and supervisors who are experts in the same subject area; that provide opportunities to learn which are grounded in practice; and that offer adequate appropriate clinical experiences. Finally, teacher educators often feel constrained by limited resources and feel intense pressure (especially in this era of sharp critique of their work) to be good and effective—but in turn, they have few opportunities to be creative and flexible, designing programs that may be unique and unusual. Policymakers should provide resources for some especially promising programs to experiment with program design and structure.

Policymakers should support and fund high quality programs—whether alternative or traditional—that are built upon an understanding of adult learning; that provide preparation in content-based pedagogy and in preparing curriculum for diverse learners; that provide faculty, mentors and supervisors who are experts in the same subject area; that provide opportunities to learn which are grounded in practice; and that provide adequate appropriate clinical experiences.

III. Help develop a teaching pipeline between preparation and work in schools.

Developing a teaching pipeline that gradually moves new entrants from strong, effective schools to more challenging schools may help alleviate some of the initial stresses new teachers feel. Initially, new teachers should be placed in good, effective schools that can allow them to develop their skills, maintain their commitment, and enjoy success. Gradually, these teachers could move into more difficult positions once they have learned to be effective with students. In turn, students in the schools where good teachers are most needed would benefit from working with more experienced teachers, rather than the novices they are typically assigned.

In addition to establishing a supportive pipeline, policymakers need to expand opportunities for career changers. For instance, not all such individuals may want to make a full-time commitment to teaching. For that reason, policies that enable the rethinking of staffing arrangements in schools may provide a means to draw upon a broader talent pool for teaching than current staffing arrangements allow.

For example, considering ways to offer opportunities for work in schools beyond full-time classroom teacher—with positions such as "visiting professor," "visiting artist," or "visiting technology expert"—might enable those older candidates interested in making a contribution, or gradually increasing their work in schools, to do so. In such positions, mid- and second-career candidates (as well as other individuals in the community with needed expertise and appropriate commitment) could provide subject matter support to teachers developing new curricula or projects; contribute targeted work to particular units or lessons; or simply help extend teachers' curricula into other domains, such as art or technology, to bring different perspectives to bear upon the topics being learned.

IV. Focus upon improving working conditions in schools.

Again and again, mid- and second-career teachers indicate their surprise and dismay at the working conditions they encounter in schools. These conditions make it difficult for them to be successful with students—their central aim in teaching—and make them question their choice to become

teachers. Indeed, feedback from career changers regarding school working conditions is useful in thinking about larger issues of attrition and retention of new teachers in general, offering perspectives that novices without other work experience may not be in a position to provide.

Policies that center upon improving conditions in schools may help alleviate career changers' concerns and enable them to focus upon teaching and learning. For instance, research shows that teachers use a portion of their salary to purchase books and other supplies and resources for their classrooms every year. A quick, simple grant process to support the purchase of books or other basic classroom resources could relieve and encourage new teachers. Overall, improving working conditions in schools could be one of the key ways in which policymakers can help retain new teachers.

V. Support the development of state and district data systems to illumine links between teachers' preparation, teachers' performance, and students' learning.

The development of longitudinal data systems for monitoring student progress and teacher impact will encourage a greater evidence-based focus in teacher education, and provide critical information on programs and program features with the strongest records of graduate success.

What Do We Still Need to Know?

There is much we still need to know about the pool of prospective mid- and second-career teachers, the incentives that will work in attracting them to teaching, the programs that will prepare them well, and the supports they will need as beginning teachers and throughout their careers if their potential for the nation's classrooms is to be fully developed.

Specifically, researchers need to:

I. Learn more about who mid- and second-career teacher candidates are.

Researchers need to confirm the numbers of entering mid- and second-career teachers nationally and at the state level, looking in particular at differences among labor markets, as well as examining the distinctions among different age groups of teachers. They need to learn more about the racial and ethnic diversity of these candidates. They need to understand what kinds of prior experiences career changers have—looking, in particular, at the kinds of skills and abilities they *do* bring to teaching, and investigating the subject matter knowledge they do or do *not* bring.

Developing more finely tuned profiles of entering teachers can also improve educators' and policymakers' understandings of how to work with older entrants interested in teaching. Of course, an understanding of distinctions among mid- and second-career teacher candidates must be linked with an understanding of which entrants might be the most desirable new teachers. To that end, researchers should help identify which of these teachers are most effective (and with what kinds of students).

II. Understand more about what these candidates need.

In addition to knowing more about who these candidates are, researchers also need to help clarify understandings of their needs. New research is needed that can shed light upon what motivates mid- and second-career candidates to transition to teaching—with particular attention to differences in their perceptions of teaching as a short-term or long-term commitment; their plans for the future; and their reasons for choosing teaching (lifestyle compatibility, simple career change, idealism and interest in making a difference for children, or something other). Researchers need to examine how these motivations may vary by race, ethnicity and gender.

In addition, researchers need to know what features of preparation make the greatest difference to effective practice on the part of career-changing teachers, and in what combinations. Finally, research is needed to make clear what sorts of working conditions would help these new teachers do their work better. While it is plain that poor working conditions negatively impact career changers' desire to remain in teaching, the field needs to know what kinds of changes mid- and second-career teachers most want and what would have the greatest impact upon their ability to teach well.

III. Conduct research on effective features and programs.

Finally, the field of teacher preparation needs research that identifies the most important principles in preparing career changers for successful transitions to classroom careers. Specifically, researchers need to identify the program features that make the most difference in preparing career changers and other delayed entrants for effectiveness in high-need classrooms.

Linking research on these particular aspects of successful teacher preparation with evidence on the outcomes achieved by the most effective teachers will help identify programs that actually do prepare older entrants well. It may be that the best programs have specific means of helping career changers transition to teaching and use their skills appropriately and effectively; or ground their learning in real examples from teaching and learning in classrooms; or use theories of adult learning. However, there may be other principles at work in effective programs, as well.

Identifying the core principles of the programs that are most successful in promoting student achievement and teacher effectiveness, then examining the features of those programs, may be one way to create templates for more effective preparation of career-changing teachers. Another approach might be focusing on programs whose key design principles and features seem to make a difference, and then examining the practices and outcomes of their graduates. Either way, it is crucial for the field of teacher preparation to understand much more about how best to prepare midcareer and second-career teachers in order to help them succeed in their work with children.

CONCLUSION

Despite substantial attention to career-changing teacher candidates, both in policy discussions and through initiatives and programs specifically designed to attract them, they remain an inadequately studied and potentially underutilized human resource pool for the nation's schools. Thus, while these older entrants to teaching may have the potential to bring maturity, creativity, experience, and expertise to the classroom, researchers, policymakers and teacher educators must make much more targeted efforts to attract the most desirable of these candidates. By focusing more directly upon who they are and what they need, leaders in the field of teacher preparation can better help career changers choose teaching, develop into effective teachers, and ultimately, succeed in schools with the children who need effective teachers the most.

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APPENDIX:

Characteristics of Programs Offering Alternative Routes to Teacher Certification, by State

		Program Goal				Program Focus			Program Oversight			Length of Program			Entry Requirements for Program				
STATE	Name of Program	Create Alternate Route to Teacher Certification	Increase Teacher Applicant Pool	Attract Midcareer Adults to Teaching	Reduce Teacher Shortage	K - 5	6 -12	Selected Subjs/ Fields	District Based	Univ. Based	State Based	< 1 yr	1 yr	≥ 1 yr	Prior Bachelor's Degree	GPA	Prior Courses	Teaching - Work Experience	Employmt/ Offer of Employmt as Teacher
Alabama	Alternative Baccalaureate-Level Certificate		●			●	●	●	●					●	●			●	
	Special Alternative Certificate	●				●	●			●			●		●	●			
	Preliminary Certificate		●					●	●					●	Master's				
	Career/Technical Alt. Baccalaureate-Level Certificate		●				●	●	●					●	●			●	
	Additional Teaching Field	●				●	●	●							●			●	
Alaska	Type M Limited Certificate							●	●										
	Initial Teacher Certification					●	●								●				
	Limited Certificat'n for Instructional Aides (Type 1)					●	●			●				●					●
	Emergency Hires																		
Arizona	Alternative Secondary Path to Certification			●					●	●				●	●	●		●	
	Reciprocal Provisional Teach'g Certificate					●	●								●		●		
	Emergency Teaching Certificate					●	●	●	●					●	●				●

Legend: ● = characteristic reported ▨ = information not available

While the authors made every attempt to guarantee the accuracy of this information, state programs are subject to change. Readers are urged to contact the cognizant state office and/or review its Web site for the most up-to-date program information and details.

STATE	Name of Program	Program Completion Requirements & Training Experiences				Certification Awarded			Post Program Teaching Requirements	Incentives Offered	Program Contact
		Teacher Preparation Coursework	GPA	Inservice Practicum or Teaching Svce	Mentoring/ Induction	Limited or Temporary Cert. During Training	Limited or Provisional Cert. (w/Renew or Upgrade)	Regular Certification	Employed in Shortage Fields or High-Need Schools		
Alabama	Alternative Baccalaureate-Level Certificate	●	●		●	●				●	Alabama Dept. of Education Teacher Education & Certification Office 5215 Gordon Persons Bldg. PO Box 302101 Montgomery, AL 36130-2101 334-242-9977
	Special Alternative Certificate				●	●				●	
	Preliminary Certificate				●	●				●	
	Career/Technical Alt. Baccalaureate-Level Certificate	●			●	●				●	
	Additional Teaching Field				●	●				●	
Alaska	Type M Limited Certificate					●	●				Alaska Dept. of Education & Early Development ATTN: Teacher Certification 801 West 10th St., Suite 200 P.O. Box 110500 Juneau, AK 99811-0500 907-465-2441
	Initial Teacher Certification					●					
	Limited Certificat'n for Instructional Aides (Type I)					●					
	Emergency Hires										
Arizona	Alternative Secondary Path to Certification				●		●	●	●		Arizona Dept. of Education 1535 West Jefferson Street PO Box 6490 Phoenix, AZ 85007 602-542-4367
	Reciprocal Provisional Teach'g Certificate						●				
	Emergency Teaching Certificate						●		●		

		Program Goal				Program Focus			Program Oversight			Length of Program			Entry Requirements for Program				
STATE	Name of Program	Create Alternate Route to Teacher Certification	Increase Teacher Applicant Pool	Attract Midcareer Adults to Teaching	Reduce Teacher Shortage	K - 5	6 - 12	Selected Subjs/ Fields	District Based	Univ Based	State Based	< 1 yr	1 yr	≥ 1 yr	Prior Bachelor's Degree	GPA	Prior Courses	Teaching - Work Experience	Employmt/ Offer of Employmt as Teacher
Arkansas	Non-Traditional Licensure Program		●	●	●	●	●				●			●	●	●		●	●
California	University Internship Credentials					●	●			●		●			●				
	District Intern Credential	●				●	●		●			●			●				
	Teaching Credentials with Private School Experience	●				●	●		●			●			●		●		
	Early Completion Internship Option	●				●	●		●	●		●			●		●		
	Teaching Credentials via Peace Corps Teaching Experience	●				●	●					●					●		
Colorado	Alternative Licensing Program		●			●	●		●	●		●	●		●		●		
	Teacher in Residence Program				●	●	●		●					●	●		●		
Connecticut	Alternate Route to Teacher Certification			●		●	●				●	●			●	●			
Delaware	Alternative Route to Certification			●		●		●		●		●	●	●					
	Masters Plus Certification Prog. in Exceptional Children and Youth			●	●	●			●				●	●	●				
	M.A. in Teaching (Delaware State U., Wilmington U.)	●				●			●				●	●	●				●
	M.Ed.-Concentration in Elementary Studies	●			●				●				●	●					●

STATE	Name of Program	Program Completion Requirements & Training Experiences				Certification Awarded			Post Program Teaching Requirements	Incentives Offered	Program Contact
		Teacher Preparation Coursework	GPA	Inservice Practicum or Teaching Svce	Mentoring/ Induction	Limited or Temporary Cert. During Training	Limited or Provisional Cert. (w/Renew or Upgrade)	Regular Certification	Employed in Shortage Fields or High-Need Schools		
Arkansas	Non-Traditional Licensure Program	●	●		●	●				●	Arkansas Dept. of Education Office of Professional Licensure Four Capitol Mall Room 106-B Little Rock, AR 72201 501-682-4342
California	University Internship Credentials	●					●	●			Commission on Teacher Credentialing 1900 Capitol Avenue P.O. Box 944270 Sacramento, CA 94244-2700 888-921-2682
	District Intern Credential	●	●	●	●		●				
	Teaching Credentials with Private School Experience	●	●	●			●	●			
	Early Completion Internship Option	●	●				●				
	Teaching Credentials via Peace Corps Teaching Experience	●	●	●			●	●			
Colorado	Alternative Licensing Program				●		●				Colorado Dept. of Education Educator Licensing 201 East Colfax, Room 105 Denver, CO 80203 303-866-6628
	Teacher in Residence Program			●	●	●					
Connecticut	Alternate Route to Teacher Certification	●			●		●				Connecticut State Dept. of Education Bureau of Educator Preparation, Certification, Support and Assessment P. O. Box 150471 - Room 243 Hartford, CT 06115-0471 860-713-6969
Delaware	Alternative Route to Certification				●				●	●	Delaware Center for Teacher Education University of Delaware 200 Academy Street Newark, DE 19716 302-831-4598
	Masters Plus Certification Prog. in Exceptional Children and Youth			●							
	M.A. in Teaching (Delaware State U., Wilmington U.)			●			●				
	M.Ed.-Concentration in Elementary Studies			●			●				

		Program Goal				Program Focus			Program Oversight			Length of Program			Entry Requirements for Program				
STATE	Name of Program	Create Alternate Route to Teacher Certification	Increase Teacher Applicant Pool	Attract Midcareer Adults to Teaching	Reduce Teacher Shortage	K - 5	6 -12	Selected Subjs/ Fields	District Based	Univ. Based	State Based	< 1 yr	1 yr	≥ 1 yr	Prior Bachelor's Degree	GPA	Prior Courses	Teaching - Work Experience	Employmt/ Offer of Employmt as Teacher
District of Columbia	Alternate Route Provisional License			●		●	●	●	●						●		●		●
	Transit'n to Tchg: Transitioning Our Provisional Stars (TOPS)		●			●	●	●		●					●				
Florida	Temporary Certificate					●	●		●					●	●				●
	Alternative Certification Program	●				●	●		●						●				●
Georgia	Alternative Teacher Preparation Program (TAPP)			●	●	●	●			●				●	●	●			●
	Certification by Interstate Reciprocity				●	●	●				●				●				
	Permit				●			●			●								●
	Internat'l Exchange Route (cultural teacher exchange)	●				●	●				●				●			●	
	Non-Renewable, Certification-Based Options			●	●	●	●	●		●	●			●	●	●			●
	Non-Renewable, Test-Based Options				●	●	●		●	●			●	●	●	●			●
Hawaii	Alternative Program for Shortage Areas				●		●	●		●				●	●	●			
	Reciprocity					●	●				●							●	
	Alternative Basic Certification in Special Education (ABCSE)				●			●		●	●			●	●	●			●
	Respecialization in Special Education (RISE)				●			●			●				●			●	

STATE	Name of Program	Program Completion Requirements & Training Experiences: Teacher Preparation Coursework	GPA	Inservice Practicum or Teaching Svce	Mentoring/ Induction	Certification Awarded: Limited or Temporary Cert. During Training	Limited or Provisional Cert. (w/Renew or Upgrade)	Regular Certification	Post Program Teaching Requirements: Employed in Shortage Fields or High-Need Schools	Incentives Offered	Program Contact
District of Columbia	Alternate Route Provisional License	●					●				Office of the State Superintendent of Education 441 4th St., NW, Suite 350 North Washington, DC 20001 202-727-6436
	Transit'n to Tchg: Transitioning Our Provisional Stars (TOPS)							●		●	
Florida	Temporary Certificate			●			●			●	Florida Dept. of Education Bureau of Educator Certification Suite 201, Turlington Building 325 West Gaines Street Tallahassee, FL 32399-040 800-445-6739
	Alternative Certification Program				●			●		●	
Georgia	Alternative Teacher Preparation Program (TAPP)			●	●			●		●	Georgia State Dept. of Education Director, Teacher Quality 1852 Twin Towers East 205 Jesse Hill Jr. Drive SE Atlanta, GA 30334 404-463-5845
	Certification by Interstate Reciprocity							●			
	Permit						●				
	Internat'l Exchange Route (cultural teacher exchange)				●	●					
	Non-Renewable, Certification-Based Options				●		●				
	Non-Renewable, Test-Based Options			●	●		●				
Hawaii	Alternative Program for Shortage Areas		●	●			●				Hawaii Department of Education Office of Human Resources Teacher Recruitment 680 Iwilei Road, Suite 490 Honolulu, HI 96817 808-586-3420
	Reciprocity							●			
	Alternative Basic Certification in Special Education (ABCSE)			●	●			●		●	
	Respecialization in Special Education (RISE)			●	●			●		●	

		Program Goal				Program Focus			Program Oversight			Length of Program			Entry Requirements for Program				
STATE	Name of Program	Create Alternate Route to Teacher Certification	Increase Teacher Applicant Pool	Attract Midcareer Adults to Teaching	Reduce Teacher Shortage	K - 5	6 -12	Selected Subjs/ Fields	District Based	Univ. Based	State Based	< 1 yr	1 yr	≥1 yr	Prior Bachelor's Degree	GPA	Prior Courses	Teaching - Work Experience	Employmt/ Offer of Employmt as Teacher
Idaho	Provisional Authorization	●				●	●		●				●		●				
	Alternative Authorization - Teacher to New Certification				●	●	●		●	●				●	●				
	Alternative Authorization - Content Specialist	●				●	●			●				●	●				
	Post-Baccalaureate Alternate Route						●			●		●							
	Alt. Authorization - Postsecondary Specialist Cert.	●						Distance Learning			●				●				●
Illinois	Alternative Teacher Certification	●				●	●			●				●	●				
	Alternative Route to Teacher Certification	●				●	●			●				●	●				
	Resident Teacher Certification Program	●				●	●			●				●	●				
Indiana	Emergency Permit				●	●	●				●	●			●				
	Transition to Teaching			●		●	●			●				●	●	●			
Iowa	Teacher Intern License	●					●		●	●			●	●	●	●			
Kansas	Restricted License			●	●		●		●	●				●		●			
	Exchange License	●														●			
	Provisional License														●			●	

STATE	Name of Program	Program Completion Requirements & Training Experiences				Certification Awarded			Post Program Teaching Requirements	Incentives Offered	Program Contact
		Teacher Preparation Coursework	GPA	Inservice Practicum or Teaching Svce	Mentoring/ Induction	Limited or Temporary Cert. During Training	Limited or Provisional Cert. (w/Renew or Upgrade)	Regular Certification	Employed in Shortage Fields or High-Need Schools		
Idaho	Provisional Authorization						●				Idaho State Dept. of Education Div. of Certification & Professionals Standards P.O. Box 83720 Boise, ID 83720-0027 (208) 332-6936
	Alternative Authorization - Teacher to New Certification	●					●				
	Alternative Authorization - Content Specialist	●			●		●				
	Post-Baccalaureate Alternate Route	●			●			●			
	Alt. Authorization - Postsecondary Specialist Cert.						●	●			
Illinois	Alternative Teacher Certification			●			●				Illinois State Board of Education 100 N. 1st Street Springfield, IL 62777 866-262-6663
	Alternative Route to Teacher Certification			●	●		●				
	Resident Teacher Certification Program	●		●	●		●				
Indiana	Emergency Permit	●			●		●				Indiana Dept. of Education Div. of Professional Standards 101 W. Ohio St., Suite 300 Indianapolis, IN 46204 317-232-9010
	Transition to Teaching	●						●			
Iowa	Teacher Intern License	●		●	●		●				Board of Educational Examiners Grimes State Office Building 400 East 14th St. Des Moines, IA 50319-0146 515-281-3245
Kansas	Restricted License						●		●	●	Kansas State Dept. of Education Teacher Education & Licensure 120 SE 10th Ave Topeka, KS 66612 785-291-3678
	Exchange License						●				
	Provisional License						●				

		Program Goal				Program Focus			Program Oversight			Length of Program			Entry Requirements for Program				
STATE	Name of Program	Create Alternate Route to Teacher Certification	Increase Teacher Applicant Pool	Attract Midcareer Adults to Teaching	Reduce Teacher Shortage	K - 5	6 -12	Selected Subjs/ Fields	District Based	Univ. Based	State Based	< 1 yr	1 yr	≥ 1 yr	Prior Bachelor's Degree	GPA	Prior Courses	Teaching - Work Experience	Employmt/ Offer of Employmt as Teacher
Kentucky	Exceptional Work Experience Certification			●		●	●		●					●	●	●	●	●	●
	Local District Training Program Certification	●				●	●		●	●			●	●	●	●	●		●
	College Faculty Certification	●				●	●				●		●		Master's				
	Adjunct Instructor Certification	●				●	●				●				●	●	●		
	Veterans of Armed Services				●	●	●				●				●	●			
	University-Based Alternative Route to Certification	●				●	●			●				●	●				
	University Institute Alternative Route to Certification	●				●	●			●					●	●			
Louisiana	Practitioner Teacher Program	●				●	●			●				●	●	●			
	Master's Degree Program	●				●	●			●				●	●	●			
	Non-Master's/Cert.-Only Program	●				●	●			●				●	●	●			
Maine																			
Massa-chusetts	Massachusetts Initiative for New Teachers (MINT)			●			●	●	●				●		●	●			

STATE	Name of Program	Program Completion Requirements & Training Experiences				Certification Awarded			Post Program Teaching Requirements	Incentives Offered	Program Contact
		Teacher Preparation Coursework	GPA	Inservice Practicum or Teaching Svce	Mentoring/ Induction	Limited or Temporary Cert. During Training	Limited or Provisional Cert. (w/Renew or Upgrade)	Regular Certification	Employed in Shortage Fields or High-Need Schools		
Kentucky	Exceptional Work Experience Certification				●		●				Kentucky Dept. of Education Education Professional Standards Board 100 Airport Road, 3rd Floor Frankfort, KY 40601 502-564-4606
	Local District Training Program Certification			●	●		●				
	College Faculty Certification				●		●				
	Adjunct Instructor Certification						●				
	Veterans of Armed Services			●			●				
	University-Based Alternative Route to Certification	●		●	●		●			Minority students	
	University Institute Alternative Route to Certification				●		●			Minority students	
Louisiana	Practitioner Teacher Program			●			●				Louisiana Dept. of Education Division Certification & Preparation P. O. Box 94064 Baton Rouge, LA 70804-9064 877-453-2721
	Master's Degree Program			●				●			
	Non-Master's/Cert.-Only Program			●			●				
Maine											Maine Dept. of Education Professional Development 23 Sate House Station Augusta, ME 04333- 0023 207-624- 6600
Massa-chusetts	Massachusetts Initiative for New Teachers (MINT)			●			●		●	●	Massachusetts Dept. of Elementary & Secondary Education 350 Main Street Malden, MA 02148-5023 781-338-3000

		Program Goal				Program Focus			Program Oversight			Length of Program			Entry Requirements for Program				
STATE	Name of Program	Create Alternate Route to Teacher Certification	Increase Teacher Applicant Pool	Attract Midcareer Adults to Teaching	Reduce Teacher Shortage	K - 5	6 -12	Selected Subjs/ Fields	District Based	Univ. Based	State Based	< 1 yr	1 yr	≥ 1 yr	Prior Bachelor's Degree	GPA	Prior Courses	Teaching - Work Experience	Employmt/ Offer of Employmt as Teacher
Michigan	Model Process & Standards for MI Alt. Routes to Teacher Cert (MARTC)				●	●	●			●				●	●	●	●		
	The Limited License to Instruct			●	●	●	●	●		●				●	●		●		
Minnesota	The Collaborative Urban Education Program (CUE)	●								●				●	●		●		●
Mississippi	Master's of Arts in Teaching Program (MAT)	●				●	●			●					●				
	Mississippi Alt.Path to Quality Teachers (MAPQT)	●				●	●			●					●	●			
	The Teach Mississippi Institute	●				●	●			●		●							
	American Board Certification for Teacher Excellence (ABCTE)	●					●	●											
Missouri	Alternative Professional Education Programs	●								●				●	●	●			
Montana	Northern Plains Transition to Teaching	●		●	●		●			●				●					
Nebraska	Provisional Commitment Teaching Certificate					●	●		●					●			●		●
Nevada	Nevada Alternative Route to Licensure																		

		Program Completion Requirements & Training Experiences				Certification Awarded			Post Program Teaching Requirements	Incentives Offered	Program Contact
STATE	Name of Program	Teacher Preparation Coursework	GPA	Inservice Practicum or Teaching Svce	Mentoring/ Induction	Limited or Temporary Cert. During Training	Limited or Provisional Cert. (w/Renew or Upgrade)	Regular Certification	Employed in Shortage Fields or High-Need Schools		
Michigan	Model Process & Standards for MI Alt. Routes to Teacher Cert (MARTC)				●	●			●		Michigan Dept. of Education Office of Professional Preparation Services 608 W. Allegan Street P.O. Box 30008 Lansing, MI 48909 517-373-3310
	The Limited License to Instruct				●	●		●			
Minnesota	The Collaborative Urban Education Program (CUE)	●		●	●		●				Minnesota Dept. of Education Educator Licensing 1500 Highway 36 West Roseville, MN 55113 651-582-8691
Mississippi	Master's of Arts in Teaching Program (MAT)			●				●			Mississippi Dept. of Education Educator Licensure P.O. Box 771 Jackson, MS 39205-0771 601-359-3483
	Mississippi Alt. Path to Quality Teachers (MAPQT)			●	●		●				
	The Teach Mississippi Institute			●			●				
	American Board Certification for Teacher Excellence (ABCTE)			●	●			●			
Missouri	Alternative Professional Education Programs			●	●		●				Missouri Dept. of Elementary & Secondary Education Educator Certification Section Post Office Box 480 Jefferson City, MO 65102-0480 573-751-0051
Montana	Northern Plains Transition to Teaching	●		●	●		●				Montana Office of Public Instruction Educator Licensure PO Box 202501 Helena, MT 59620-2501 406-444-3150
Nebraska	Provisional Commitment Teaching Certificate	●					●				Nebraska Dept. of Education 301 Centennial Mall South PO Box 94987 Lincoln, NE 68509 402-471-2496
Nevada	Nevada Alternative Route to Licensure										Nevada Dept. of Education Teacher Licensure 1820 E. Sahara, Suite 205 Las Vegas, NV 89104 702-486-6458

		Program Goal				Program Focus			Program Oversight			Length of Program			Entry Requirements for Program				
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New Hampshire	Alternative 3: Competency-Based Cert. for Candidates Experienced in Endorsement Areas	●						●			●	●	●			●			
	Alternative 4: Job-Embedded Option for Critical Shortage Areas, Vocational Ed, & Business Administrator					●		●	●		●		●					●	
	Alternative 5: Job-Embedded Option for Content Majors in All Teaching Areas Exc. Special Ed & Vocational Ed/Site-Based				●			●	●		●		●	●	●			●	
New Jersey	New Jersey Provisional Teacher Program – Alternate Route	●				●	●		●					●	●				●
New York	Alt. Certification "Transitional A" Prog.	●			●	●	●			●				●	●				
	Alt. Certification "Transitional B" Prog.	●			●	●	●			●				●	●	●	●		
	Alt.Certification "Transitional C" Prog.	●			●	●	●			●				●	●				
North Dakota	Clinical Practice Option																		
	Alternate Access License																		
Ohio	Alternative Educator Licensure				●	●	●				●			●	●	●			
Oklahoma	Oklahoma Alternative Placement Program	●				●	●							●	●		●		

STATE	Name of Program	Program Completion Requirements & Training Experiences				Certification Awarded			Post Program Teaching Requirements	Incentives Offered	Program Contact
		Teacher Preparation Coursework	GPA	Inservice Practicum or Teaching Svce	Mentoring/ Induction	Limited or Temporary Cert. During Training	Limited or Provisional Cert. (w/Renew or Upgrade)	Regular Certification	Employed in Shortage Fields or High-Need Schools		
New Hampshire	Alternative 3: Competency-Based Cert. for Candidates Experienced in Endorsement Areas				●		●				New Hampshire Dept. of Education Bureau of Credentialing 101 Pleasant Street Concord, NH 03301-3860 603-271-3494
	Alternative 4: Job-Embedded Option for Critical Shortage Areas, Vocational Ed, & Business Administrator	●			●		●		●		
	Alternative 5: Job-Embedded Option for Content Majors in All Teaching Areas Exc. Special Ed & Vocational Ed/Site-	●			●		●				
New Jersey	New Jersey Provisional Teacher Program – Alternate Route	●		●	●	●					New Jersey Dept. of Education Office of Licensure & Credentials P.O. Box 500 Trenton, NJ 08625-0500 609-292-2070
New York	Alt. Certification "Transitional A" Prog.			●	●		●				New York State Education Department Office of the Professions 89 Washington Avenue Albany, NY 12234 518-474-3852
	Alt. Certification "Transitional B" Prog.			●	●		●				
	Alt.Certification "Transitional C" Prog.			●	●		●	●			
North Dakota	Clinical Practice Option										North Dakota Dept . of Public Instruction Credentialing/Paraprofessionals 600 E. Boulevard Avenue, Dept. 201 Bismarck, ND 58505 701-328-2260
	Alternate Access License										
Ohio	Alternative Educator Licensure				●		●				Ohio Department of Education Office of Educator Licensure 25 South Front Street Columbus, OH 43215-4183 614-466-
Oklahoma	Oklahoma Alternative Placement Program	●			●		●				Oklahoma State Dept. of Education Professional Standards Section 2500 North Lincoln Boulevard Oklahoma City, OK 73105-4599 405-521-3337

		Program Goal				Program Focus			Program Oversight			Length of Program			Entry Requirements for Program				
STATE	Name of Program	Create Alternate Route to Teacher Certification	Increase Teacher Applicant Pool	Attract Midcareer Adults to Teaching	Reduce Teacher Shortage	K - 5	6 -12	Selected Subjs/ Fields	District Based	Univ. Based	State Based	< 1 yr	1 yr	≥ 1 yr	Prior Bachelor's Degree	GPA	Prior Courses	Teaching - Work Experience	Employmt/ Offer of Employmt as Teacher
Oregon	NCLB Alternative Route Teaching License	●				●	●		●										●
	American Indian Language Teaching License	●				●	●		●										●
Pennsylvania	American Board Certific'n for Teaching Excellence (ABCTE)	●				●	●	●		●				●	●				
	Vocational Intern Certificate		●					●		●				●				●	●
	Teacher Intern Certification Program		●			●	●			●				●	●	●	●		
Rhode Island	Rhode Island Non-traditional Certification Program				●	●	●			●				●	●	●			
South Carolina	Program for Alt. Certification for Educators (PACE)	●				●	●			●				●	●		●	●	
	American Board Certific'n for Teacher Excellence (ABCTE)	●				●	●	●		●				●	●				
South Dakota	Alternative Certification				●		●				●			●		●	●		●
	Northern Plains Transition to Teaching (NPTT)	●					●			●				●					
Tennessee	Alternative License Type I	●				●	●			●				●	●		●		●
	Alternative License Type II	●				●	●			●				●	●		●		●
Texas	Alternative Programs for Educator Preparation	●				●	●		●	●				●					

STATE	Name of Program	Program Completion Requirements & Training Experiences				Certification Awarded			Post Program Teaching Requirements	Incentives Offered	Program Contact
		Teacher Preparation Coursework	GPA	Inservice Practicum or Teaching Svce	Mentoring/ Induction	Limited or Temporary Cert. During Training	Limited or Provisional Cert. (w/Renew or Upgrade)	Regular Certification	Employed in Shortage Fields or High-Need Schools		
Oregon	NCLB Alternative Route Teaching License					●					Oregon Department of Education Teacher Standards & Practices Commission 255 Capitol Street NE Salem, OR 97310-0203 503-378-3757
	American Indian Language Teaching License					●					
Pennsylvania	American Board Certific'n for Teaching Excellence (ABCTE)	●			●		●				Pennsylvania Dept. of Education Division of Certification Services 333 Market Street Harrisburg, PA 17126-0333 717-787-3356
	Vocational Intern Certificate	●			●	●					
	Teacher Intern Certification Program	●				●					
Rhode Island	Rhode Island Non-traditional Certification Program	●			●		●				Rhode Island Department of Education Office of Educator Quality & Certification 255 Westminster Street Providence, RI 02903 401-222-4600
South Carolina	Program for Alt. Certification for Educators (PACE)		●			●			●		South Carolina Department of Education Office of Educator Certification 3700 Forest Drive Suite 500 Columbia, SC 29204 803-734-8466
	American Board Certific'n for Teacher Excellence (ABCTE)	●			●	●					
South Dakota	Alternative Certification			●	●		●				South Dakota Dept. of Education Office of Accreditation & Teacher Quality 700 Governors Drive Pierre, SD 57501 605-773-3553
	Northern Plains Transition to Teaching (NPTT)			●	●		●			●	
Tennessee	Alternative License Type I	●					●				Tennessee Dept. of Education Office of Teacher Licensing 4th Floor, Andrew Johnson Tower 710 James Robertson Parkway Nashville, TN 37243-0377 615-532-4885
	Alternative License Type II	●					●				
Texas	Alternative Programs for Educator Preparation	●		●	●					●	Texas Education Agency Educator Certification & Standards 1701 North Congress Ave WBT 5-100 Austin, TX 78701-1494 512-936-8400

		Program Goal				Program Focus			Program Oversight			Length of Program			Entry Requirements for Program				
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Utah	Alternative Routes to Licensure (ARL)	●				●	●				●			●	●		●		●
	Transition to Teaching	●				●	●		●	●	●			●	●			●	●
	Career & Technology Ed Alt. Prep Prog.	●				●	●				●			●	●		●		●
Virginia	Alternative Licensure Program	●				●	●							●	●		●		
	Career Switcher Alternative Route to Licensure program			●		●	●			●				●	●		●		
Washington	Alternative Routes to Teaching	●			●	●	●			●	●			●	Associate			●	
	Transition to Teaching	●			●	●	●			●	●			●	●			●	
West Virginia	Alt. Prep. Program for Gen'l Educators	●			●	●	●			●				●	●	●	●		●
	Alt. Prep. Program for Special Educators (Content)	●			●			●		●				●	●	●	●		
	Alt. Prep. Prog. for General Educators (Special Education)	●			●			●		●				●	●	●	●		

STATE	Name of Program	Program Completion Requirements & Training Experiences				Certification Awarded			Post Program Teaching Requirements	Incentives Offered	Program Contact
		Teacher Preparation Coursework	GPA	Inservice Practicum or Teaching Svce	Mentoring/ Induction	Limited or Temporary Cert. During Training	Limited or Provisional Cert. (w/Renew or Upgrade)	Regular Certification	Employed in Shortage Fields or High-Need Schools		
Utah	Alternative Routes to Licensure (ARL)				●		●				Utah State Office of Education 250 East 500 South P.O. Box 144200 Salt Lake City, UT 84114-4200 801-538-7834
	Transition to Teaching	●		●	●		●		●		
	Career & Technology Ed Alt. Prep Prog.						●				
Virginia	Alternative Licensure Program				●						Virginia Dept. of Education Division of Teacher Education & Licensure P. O. Box 2120 Richmond, VA 23218-2120 804-371-2471
	Career Switcher Alternative Route to Licensure program			●			●				
Washington	Alternative Routes to Teaching				●			●	●	●	Washington Office of the Superintendent of Public Instruction Certification Office Old Capitol Building PO Box 47200 Olympia, WA 98504-7200 360-725-6400
	Transition to Teaching				●			●	●	●	
West Virginia	Alt. Prep. Program for Gen'l Educators				●		●				West Virginia Department of Education Office of Professional Preparation Building 6, Room 252 1900 Kanawha Boulevard, East Charleston, WV 25305 800-982-2378
	Alt. Prep. Program for Special Educators (Content)	●					●				
	Alt. Prep. Prog. for General Educators (Special Education)	●		●			v				

		Program Goal				Program Focus			Program Oversight			Length of Program			Entry Requirements for Program				
STATE	Name of Program	Create Alternate Route to Teacher Certification	Increase Teacher Applicant Pool	Attract Midcareer Adults to Teaching	Reduce Teacher Shortage	K - 5	6 -12	Selected Subjs/ Fields	District Based	Univ. Based	State Based	< 1 yr	1 yr	≥1 yr	Prior Bachelor's Degree	GPA	Prior Courses	Teaching - Work Experience	Employmt/ Offer of Employmt as Teacher
Wisconsin	Accelerated Post-Bac Graduate Teacher Certific'n-Concordia U.				●			●		●				●	●	●	●		
	Master's of Applied Leadership for Teach'g/Learn'g: UW-Green Bay				●			●		●					●	●	●		
	Milwaukee Teacher Education Center (MTEC)	●				●	●			●					●				
	NORDA, Inc. Project Teaching				●			●		●		●			●		●		
	Online Alternative Licensure Program: UW-Platteville				●			●		●					●				
	Proficiency Based Licensure Program-CESA #1				●	●	●			●					●				
	Residency and Teacher Education-CESA #6	●						●		●					●				
	Teacher Devel. Ctr Alt. Licensure Prog.- CESA #7				●		●	●		●					●				
	Urban Education Fellows Program			●			●			●									
Wyoming	Northern Plains Transition to Teaching Program	●		●			●			●				●	●			●	

STATE	Name of Program	Program Completion Requirements & Training Experiences				Certification Awarded			Post Program Teaching Requirements	Incentives Offered	Program Contact
		Teacher Preparation Coursework	GPA	Inservice Practicum or Teaching Svce	Mentoring/ Induction	Limited or Temporary Cert. During Training	Limited or Provisional Cert. (w/Renew or Upgrade)	Regular Certification	Employed in Shortage Fields or High-Need Schools		
Wisconsin	Accelerated Post-Bac Graduate Teacher Certific'n: Concordia U.			●							Wisconsin Dept. of Public Instruction TEDPL 125 S. Webster Street P.O. Box 7841 Madison, WI 53707-7841 800- 441-4563
	Master's of Applied Leadership for Teach'g/Learn'g: UW-Green Bay			●							
	Milwaukee Teacher Education Center (MTEC)			●	●						
	NORDA, Inc. Project Teaching			●							
	Online Alternative Licensure Program: UW-Platteville			●							
	Proficiency Based Licensure Program-CESA #1			●							
	Residency and Teacher Education-CESA #6			●							
	Teacher Devel. Ctr Alt. Licensure Prog.-CESA #7			●							
	Urban Education Fellows Program				●						
Wyoming	Northern Plains Transition to Teaching Program	●	●	●	●		●				Wyoming Dept. of Education Professional Teaching Standards Board 1920 Thomes Avenue, Suite 400 Cheyenne, WY 82002 800- 675-6893

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