



CENTER FOR GREAT PUBLIC SCHOOLS | TEACHER QUALITY DEPARTMENT

Strengthening and Diversifying the Teacher Recruitment Pipeline: Current Efforts

- **1 EXECUTIVE SUMMARY**
- 5 FULL REPORT
- 17 RECOMMENDATIONS
- **19 SUPPORTING RESOURCES**

Executive Summary



OVERVIEW

THIS REPORT, PREPARED BY THE CENTER FOR TEACHING QUALITY FOR THE NATIONAL EDUCATION ASSOCIATION, DISCUSSES FOUR STRATEGIES TO INCREASE THE SUPPLY OF TEACHERS, ESPECIALLY IN HIGH-NEED AREAS (CERTAIN SUBJECTS AND TEACHING SPECIALTIES, AND TEACHERS OF COLOR):

- College fellows programs
- High school teacher cadet programs
- High school teacher academies
- Community colleges

Currently, most state and district "grow our own" programs employ the first three approaches. Community colleges are a promising, emerging strategy to attract teachers of color.

Teacher recruitment programs are also evolving in response to funding requirements of the federal Carl D. Perkins Vocational and Technical Education Act. Assessment has been cursory, at best, due to underfunding—most or all available dollars are used for program activities. Accordingly, our recommendations include establishing a national clearinghouse to:

- Collect data about the teacher recruitment pipeline
- Fund research and evaluation of recruitment initiatives

COLLEGE FELLOWS PROGRAMS

To lure students into four-year teacher preparation programs, some states offer college "fellows programs." Typically, these programs pay The North Carolina Teaching Fellows Program, the longest running initiative of its kind in the United States, recruits up to 500 academically successful high school seniors per year. The program provides annual scholarships of \$6,500, which can be used at 18 private and public colleges, and requires participants to commit to teaching in North Carolina for four years.

Over the last two decades, about 60 percent of the more than 9,000 students who have enrolled have completed the program. Some 3,370 former fellows teach in 98 of North Carolina's 100 counties.

Applicants are screened using high school transcripts and college entrance examinations—the program requires a minimum of 900 on the SAT including the essay (ACT scores are converted). Local interview committees choose regional finalists; regional interview committees make final selections.

In 2007-08, North Carolina had 469 minority applicants (a record); 127 of them enrolled. Efforts to increase minority participation include encouraging students to take college entrance examinations earlier and more often, and raising awareness that college entrance examination fees may be waived.

More than 80 percent of participants have completed the **South Carolina Teaching Fellows Program** since its inception in 1999. In 2006-07, more than 700 students applied and 172 were accepted; 13 percent were students of color. Efforts to increase diversity include an awareness campaign aimed at teacher cadets and a partnership with the South Carolina Alliance of Black School Educators.



all or part of college costs. In return, students must commit to teach for a certain number of years; if they do not fulfill their commitment, they must repay the money.

Data from the North and South Carolina fellows programs suggest that such programs cannot—in and of themselves—help diversify the teaching force. They may, however, encourage participants in teacher cadet and academy programs to make teaching a career. The jury is still out on whether they drive other actions that could encourage males and minorities to become teachers, including:

- Better and earlier academic counseling
- Better preparation for college entrance exams
- More effective partnerships with
- minority organizations

HIGH SCHOOL TEACHER CADET PROGRAMS

High school "teacher cadet" programs began spreading in the mid-1980s amid predictions of pending teacher shortages. A 1996 report (the last known such survey) identified 250 examples of this approach to teacher recruitment.

Often resembling the "introduction to teaching" courses common in colleges and universities, high school teacher cadet courses are usually taught by exemplary teachers from the students' own schools. Students take one or more elective courses about the teaching profession and have "practice teaching" experiences that include tutoring and mentoring younger students.

Offering academically able students the opportunity to spend a year studying the profession from the teacher's side of the desk appears to have paid off for the **South Carolina Teacher Cadet Program**:

- Twenty-three percent of the 1987-88 cohort earned teaching licenses.
- Fifty-nine percent were "more likely to consider teaching as a career" as a result of the program, according to a 1993 study.
- Thirty-nine percent of the 2006-07 cohort said they intend to become teachers.

Proponents of the program maintain that it builds support for professional compensation and better working conditions for teachers. Most participants—80 percent in 2006-07—say it creates a positive impression of the teaching profession.

With more than two decades of sustained funding, South Carolina's program is the premier national model. Full-time teachers-in-residence and program staff (drawn from teaching ranks) visit sites, encourage professional development, and generally uphold program quality. Most other cadet programs do not have this level of support.

According to the South Carolina Center for Educator Recruitment, Retention and Advancement (CERRA), 70 percent of the students in the state's fellows program took teacher cadet courses during high school. Nonetheless, CERRA has identified critical challenges associated with the model. Among them:

• Recruiting high-performing students for elective "singleton" courses is becoming increasingly difficult in an era when competition for entry into high-status colleges is fierce and high school transcripts are all-important.

> A major initiative of the South Carolina Center for Educator Recruitment, Retention and Advancement, the **South Carolina Teacher Cadet Program** is the most widely known and studied program of its kind with 150 participating high schools.

Over the last two decades, more than 40,000 students with grade point averages of 3.0 or higher have completed the yearlong program. In the 2007-08 school year, students of color comprised about 30 percent of the participants.

To qualify for Perkins funding, the Arizona Teacher Cadet Program, Colorado Teacher Cadets, and Virginia Teachers for Tomorrow have modified the South Carolina model — for example, by casting their initiatives as "career education" and partnering with two-year community or technical colleges.



- Teacher cadet courses are difficult to schedule.
- Budget-strapped districts are often required to assign a certified core-area teacher to a teacher cadet course without recompense.

HIGH SCHOOL TEACHER ACADEMIES

To ensure a steady supply of future teachers, some states, districts, and schools have created more extensive programs called "teacher academies." Usually housed in high schools that offer a variety of career-oriented programs, they are often the products of the "grow our own" efforts of high-need schools and their communities.

Typically starting in ninth or tenth grade, teacher academies offer elective courses related to teaching, learning, child development, and child care. In eleventh and twelfth grade, students often have internships at local elementary, middle, and high schools. Some teacher academies partner with local colleges.

Enrollment-based Perkins funding has accelerated the spread of teacher academies and shifted the locus of control to state Departments of Education. According to program directors interviewed for this report, most or all teacher academies are heavily dependent on Perkins funding—without it, they would find it difficult or impossible to survive.

Few teacher academies appear to have collected data to document their effectiveness. In many cases, it is too early to judge whether the program helps "grow our own" or diversify the teaching force.

Although program leaders acknowledge that increasing diversity is a goal—one they personally feel is critical—they encourage any and all qualified students to enroll, without regard to gender or ethnicity. This practice is a product of the growing shortage of teachers and the link between Perkins funding and student enrollment.

COMMUNITY COLLEGES

More high school based cadet and academy programs are striving to connect with other segments of the teacher recruitment pipeline, including community, career, and technical colleges—the "missing rung" on the teacher education ladder.

South Carolina's **Diverse Pathways Project** exemplifies this approach. At Florida's Miami Dade Community College, nearly 90 percent of the students in the teacher education program are Hispanic or African American; a majority of those who graduate remain in the community to teach.

CONCLUSIONS

Dedicated K-12 and college educators are creating pathways for potential teachers. The issue is how wide these pathways are and how wide they could be. One high school program director uses a "threelegged stool" metaphor to convey to policymakers and bureaucrats—the holders of the purse strings—what is needed:

- Rigorous instructional content aligned with state teacher preparation requirements
- Work-based experience throughout the program
- Professional development for budding educators provided by organizations such as the Future Educators Association

We believe that communication among high school-based initiatives, community colleges, and university-based teacher education programs is essential as well.

Collaboration among state career and technical education directors and other advocates is helping to fulfill these goals. But current recruitment programs alone—underfunded, under-supported, and semi-connected at best—can neither fulfill the need for more teachers nor diversify the teaching force.

Growth in teacher cadet courses, teacher academies, and Perkins funding for career and technical education suggests that education deserves full status in workplace investment initiatives. At the same time, the lack of sustained leadership at the national and state levels—and the failure to make teacher recruitment a priority—puts even the most substantial programs at risk.

To meet the ongoing staffing needs of America's public schools, our nation needs to take a systems approach to teacher recruitment, particularly with regard to hard-tostaff content areas and high-need schools.

XAMP

One of the first teaching academies was the **Walton-**Lehman Pre-Teaching Academy, created by Walton High School and Lehman College in the Bronx, N.Y., in 1984. Walton closed in 2008, but the program will continue in some form as the High School for Teaching and the Professions.

Walton and Lehman faculty served as teachers for the structured program, which began in the eleventh grade. The program included a two-year internship and courses that qualified for college credit.

Participants, a significant majority of whom were students of color, graduated at a much higher rate than the Walton student body as a whole. Many went on to college, where they enrolled in teacher preparation programs.

The statewide **Ohio Teacher Academy Program**, launched in 2002, begins in the first year of high school and continues through senior year. Students study child development, learning theory, teaching techniques, and classroom management. Participants intern at local elementary school classrooms, are mentored by classroom teachers, and can up to earn six college credits.

Ohio's program is too new to provide substantial data on effectiveness. Even so, Arizona, New Jersey, Colorado, and other states are looking to it as a model.





CENTER FOR GREAT PUBLIC SCHOOLS | TEACHER QUALITY DEPARTMENT



Full Report

Strengthening and Diversifying the Teacher Recruitment Pipeline: Current Efforts

INTRODUCTION

This report, prepared by the Center for Teaching Quality, is based on a review of historical accounts, related research, pertinent Web sites, and interviews with 15 administrators and instructors from 12 precollegiate teacher recruitment programs. Our editors and reviewers include a scholar with expertise in teacher supply and recruitment issues, and two individuals who have been executive directors of statewide teacher recruitment programs.

At the request of the National Education Association, we have given considerable attention to early recruitment programs that identify high school students of color as a specific target group. Where hard data on effectiveness is available, we have included a discussion of those data. Readers are forewarned, however, that while many programs are long on commitment and effort, most are short on substantive evaluations of their undertakings.

After a brief overview of relevant background information, we consider several well-established "teacher cadet" programs and segue into a discussion of less common, but now rapidly emerging, "teacher academy" programs. We close with recommendations for future efforts to build effective teacher recruitment programs.

BACKGROUND

Diversity rises among students, stagnates among teachers

Since the early 1980s, education policymakers have turned to a variety of teacher recruitment programs to counter the growing shortage of teachers well prepared to staff our nation's classrooms. While the United States annually produces more new teachers than its schools hire, researchers consistently have documented significant specific shortages by locality, subject field, school level, and adequate preparation (Boe and Gilford, 1992; Boyd, et.al., 2005; Boyd, et.al., 2007; Clotfelter, et.al, 2007).

Over the last decade, school administrators have reported difficulty hiring qualified teachers in bilingual education, special education, physics, chemistry, and mathematics. Such difficulties are most common in inner cities and rural communities in the South and West, which have rapidly increasing numbers of immigrant children. Of the nation's 55 million public school students, 42 percent are considered part of a racial or ethnic minority group; 20 percent speak a language other than English in their homes; and 14 percent officially receive special education services for conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Thirty-seven million Americans live in poverty, and the percentage of schoolchildren from low-income families continues to grow, disproportionately from state to state (Digest of Educational Statistics, 2007).

Much of America's increasingly diverse student population is taught by teachers who do not "look like them." At a time when student diversity is surging, recent research shows that the percentage of minority teachers in the national workforce has grown little in the last 30 years. In 1977, teachers of color constituted about 12 percent of the workforce. Today, they are 16 percent of the workforce (Digest of Educational Statistics, 2007).

According to the Education Commission of the States, student populations will continue to grow and diversify through at least 2014. At the same time, interest in teacher education programs is declining, particularly in high-demand subjects and the most challenging school settings.

In North Carolina, to cite a typical example, schools of education produce about 4,000 new teachers each year—enough to fill roughly one-third of the state's annual vacancies. North Carolina's supply trends are even more troubling when high-demand categories are considered. Despite a growing need exacerbated by baby boomer retirements, North Carolina's universities graduated only three high school physics teachers during a recent four-year period (Bililign and Stone, 2006).

While a few states export teacher candidates to other states, on the whole most states are experiencing shortages in subjects such as secondary math and science (Alliance for Excellent Education, 2008). These shortages disproportionately impact highpoverty schools.

Alternative routes to licensure proliferate

Over the last several years, the primary policy response to teacher shortages has been to increase the supply of nontraditional recruits. A recent report revealed that almost 20 percent of new teachers hired today matriculate through alternative certification/licensure programs. In effect, such programs, which typically offer a truncated training regime (usually five to eight weeks in the summer) for recent college graduates and midcareer switchers, bypass traditional teacher education programs and most standards associated with them. But they quickly, if temporarily, fill classrooms.

In high-demand content areas, alternative routes to licensure are even more widespread. In 2004, almost 80 percent of Texas' newly hired high school mathematics and science instructors entered teaching through nontraditional routes to licensure (Fuller, 2008).

While such new hires may provide a short-term fix for an urgent need, alternative licensure recruits tend to leave the profession faster than their traditionally prepared counterparts. They also tend to be assigned to high-needs schools, creating a revolving door in the very schools where the need for highly skilled teachers is greatest.

Even so, it is difficult to discontinue these programs. Traditional teacher education programs, housed in universities across the nation, are struggling to meet the need for well-prepared instructors in subjects such as mathematics, science, foreign languages, special education, and English as a second language.

Debate rages over the merits of alternative-route recruits versus graduates of university-based teacher education programs. Policy issues related to recruiting and retaining highly capable teachers are complex and difficult to unravel — and do not speak directly to the purpose of this paper. Two things are clear from our research, however:

- Many prospective teachers decide to teach (or not) while they are still students in public schools. Moreover, teachers themselves play a major role in determining whether their students become teachers (Lortie, 1975; Berry, 1986).
- The vast majority of instructors choose to teach near where they grew up and attended college. Researchers found that in New York State, 72 percent of teachers ended up teaching within 40 miles of their hometown; 34 percent of new teachers landed their first classroom position in the school district in which they attended high school (Boyd, et al. 2005).

In response to these findings, some states and districts have implemented "grow our own" programs, especially in areas of high need. Initiatives like the 20-year old South Carolina Teacher Cadet Program, which target high school students before they graduate, offer introductory courses taught by exemplary teachers, usually from the students' own high schools. Other places go beyond the single-course approach and create teacher academies with a career focus.

COLLEGE FELLOWS PROGRAMS

North Carolina breaks new ground

To lure qualified students into four-year teaching commitments, a number of states are tying college scholarships to high-status "fellowships." The longest continuous effort is the **North Carolina Teaching Fellows Program**, which recruits up to 500 high school seniors a year for a custom-designed teacher education experience.

Over the last two decades, the North Carolina program has awarded scholarships to 9,244 students; 5,744 of them have completed the program. As of March 2008, 3,370 fellows were reportedly teaching in North Carolina schools; 540 of them had earned National Board Certification (North Carolina Teaching Fellows Program, 2008).

Data from the 2007-08 **North Carolina Teaching Fellows Program** selection process reveal a record number of minority student applications (469) and awards (127). The program screens applicants using several criteria: a minimum of 900 on the SAT (the ACT score is converted) including the essay; high school transcripts; and a two-tiered interview process (local and regional). Fellows receive an annual stipend of \$6,500 for four years and must commit to teach in North Carolina for four years.

Historical breakdowns of the **North Carolina Teaching Fellows Program** data by race and gender were not available. On its Web site, the program states that "each year approximately 20 percent of the program's recipients are minority, while 30 percent are male." A current director of the program could not say for what period in the program's 22-year history these percentages might apply, however.

The North Carolina Teaching Fellows Program is part of a larger state effort called **Project Teach**, which supports recruitment efforts in participating school districts. According to a recent report, Project Teach is placing increased emphasis on encouraging students to take SAT and ACT tests earlier (ninth or tenth grade) and more often (at least twice by the fall semester of the senior year). Since the cost of such examinations can be prohibitive for low-income families, participating school systems are asked to disseminate information about fee waivers during parent chat nights and test preparation events.

South Carolina follows suit

The more recently initiated **South Carolina Teaching Fellows Program** is modeled on its North Carolina counterpart in many respects. The program is administered by the state-supported Center for Educator Recruitment, Retention and Advancement (CERRA) in partnership with several colleges and universities. In 2006-07, a cohort of 172 fellows was selected from among more than 700 applicants. Since its inception in 1999, the program has averaged an 83 percent retention rate for program completion.

The percentage of South Carolina teaching fellows who are students of color has remained well below the percentage of minority students in the state's public schools (nearly 45 percent). Fellows of color increased from 9 percent in FY2002 to 13 percent in FY2006. Steps thus far taken by CERRA to encourage more minority participation in the program (in addition to an awareness campaign among the state's teacher cadet population) include:

- Soliciting the support of the South Carolina Alliance of Black School Educators (SCABSE). Teaching fellow applications were mailed to more than 1,200 SCABSE members, who were encouraged to share the application with high school seniors in their communities.
- Drawing on the CERRA database to identify all National Board Certified Teachers of color in the state and soliciting their assistance in recruiting efforts.

HIGH SCHOOL TEACHER CADET PROGRAMS

Best efforts bust stereotypes, set clear goals

Little systematic inquiry has been carried out regarding the nation's precollegiate teacher recruitment programs. This is due, at least in part, to the Bush administration's emphasis on—and support of—alternative routes to licensure. This emphasis has dampened interest in researching and investing in efforts to attract able students to undergraduate teacher education programs. Nonetheless, we gathered useful evidence about past recruitment initiatives as well as current and evolving programs, including common characteristics, lessons learned, and future challenges. Over the last 25 years, school districts, colleges, professional associations, regional groups, and states have created literally hundreds of programs aimed at generating interest among young people in teaching careers. Many of these programs were designed to identify and attract high achievers, including promising students of color. The best programs countered images of teaching as a low-status occupation directly, with messages emphasizing the profession's social contributions and intellectual complexity.

These second-generation "future teacher" programs tend to be curriculum-based and set clear goals, unlike the preprofessional "club" model of the past, which focused on tutoring opportunities and teacher recognition activities. Like "introduction to teaching" courses at many universities, today's teacher cadet programs engage students in yearlong academic studies of teaching and learning. Carefully crafted hands-on activities and observations introduce participants to education fundamentals and heighten awareness of the critical issues facing schools today.

The last known comprehensive national survey of precollegiate teacher recruitment efforts identified more than 250 programs serving more than 50,000 students, 64 percent of whom were young people of color (Recruiting New Teachers, 1996). Although few programs were formally evaluated, some data suggest that the program engendered positive views of teaching among participants. Participants chose teaching as a career at better than expected rates. (An earlier survey identified some 400 precollegiate teacher recruitment programs, but it may have included some that were already defunct.)

Researchers found that the most successful teacher cadet programs had the following attributes (Recruiting New Teachers, 1993):

- Clear eligibility requirements (grades, teacher recommendations, etc.) and high expectations for participants
- Apprenticeship-style activities to motivate students to consider teaching as a career
- Curricula that taught and modeled a conception of teaching as an intellectually challenging profession
- Emphasizing the role of teachers as leaders of school improvement
- Helping prospective teachers make the transition to college teacher education programs
- Developing the capacity to track students over time and using that data as part of ongoing program evaluation
- Making long-term commitments to students.

South Carolina pioneers cadet concept

All the elements listed above are found to a considerable degree in the curriculum-based **South Carolina Teacher Cadet Program**. One of the nation's oldest and most visible teacher recruitment efforts, the program actively seeks to recruit young men and minority students. Launched as a result of the 1986 South Carolina Education Improvement Act, at least 34 states have replicated the approach in varying degrees.

An initiative of the South Carolina Center for Educator Recruitment, Retention and Advancement (CERRA), the cadet program was pilot tested during the 1985-86 school year in four high schools. During the 2007-08 school year, 2,556 students in 156 high schools participated, including 483 males and 790 students of color.

Cadets participate in seminars and group projects, discussions with professionals in the field of education, and study the history of education, principles of learning, child development, and pedagogy. They also visit classrooms to observe teachers and students, construct lesson plans, tutor other students, and teach practice lessons.

An honors-level, college-credit course is geared toward hands-on activities, observations, and field experiences. The 400-page curriculum for the course has served as a model for programs in at least six other states. Academic achievement is emphasized candidates must possess a B average in college preparatory classes, write an essay, and provide five written teacher recommendations.

CERRA, which is housed on the campus of public Winthrop University, provides program support that includes site visits by teachers-in-residence and professional development workshops for instructors. South Carolina is the only state that provides funding for full-time teachers-in-residence for its cadet program.

Evaluations suggest success, but challenges remain

South Carolina's cadet program is not only one of the nation's longest running precollegiate teacher recruitment initiatives, it is one of the few that has been intensively evaluated. Proponents of the program argue that it builds support for professional levels of compensation and better teacher working conditions among future state leaders. Some support for this contention is provided by studies that have sought to determine whether the program influences career decisions. Among the findings:

- By 1993, about 23 percent of the identifiable 1987-88 cohort had been licensed to teach in South Carolina. Of these, 66 percent were actually teaching—about 30 percent in rural locations and 29 percent in critical shortage areas (Whatley, Ren, and Rowzie, 1993).
- By 2005, about 10 percent of all former teacher cadets (36,000 since the program's inception) were teaching in South Carolina classrooms. (CERRA, 2006).

- Participants reported that the program helped them appreciate teaching, understand its requirements, and prepare them for college in general.
- Eighty-seven percent of a random sample of cadets claimed that the program "helped them think about being a teacher." Fifty-nine percent said that as a direct result of the program, they were more likely to become teachers (Rowzie, 1992).
- Thirty-nine percent of the 2006-07 cohort indicated they intend to enter the teaching profession. Eighty percent indicated that the program helped create a positive impression of the profession (CERRA, 2007).

Although these studies were far more sophisticated and covered longer periods than other investigations of precollegiate recruitment programs, they lacked adequate controls, tended to rely too heavily on self-reported data, and were not able to track a sufficient sample of former participants who may or may not be teaching. These design flaws reflect the barriers created by the high costs of comprehensive evaluation, which few start-up programs can afford (Poda, 1997).

As it enters its third decade, South Carolina's cadet program faces three critical challenges:

- The program is supported entirely by legislative appropriations (approximately \$325,000 annually) on a year-to-year basis. Funding is a line item overseen by three state agencies: the South Carolina Department of Education, the Commission on Higher Education, and the Education Oversight Committee. The annual appropriations process is burdensome and timeconsuming for CERRA's small leadership team, and funding is vulnerable to political tides.
- The teacher cadet course, a "singleton" in almost all high schools, requires a significant commitment on the part of cooperating school administrators. They must work the course into

the schedule and are obliged to assign a licensed core-area teacher to the yearlong class, at a time when school and district personnel budgets are under even closer scrutiny. (It is a testament to the farsightedness of many South Carolina principals and central office leaders that roughly 75 percent of the state's high schools offered the course in the 2007-08 school year.)

• While South Carolina has one of the nation's longest running and best supported early recruitment programs, there still is no central clearinghouse for the data collection needed to track participants' progress through colleges and universities, the licensing process, and the districts that hire them. Absent such data, each year supporters of early recruitment initiatives are challenged to defend the state's significant investments in the program.

Building a better teacher pipeline

CERRA has grown from a single program in two dozen South Carolina high schools to a teacher education pipeline extending from high school through college. In collaboration with the South Carolina Department of Education, Commission on Higher Education and teacher preparation programs in 24 of the state's 30 colleges and universities, CERRA now oversees a statewide network of teacher recruitment, retention, and professional advancement programs.

A major focus is strengthening connections between high school and college teacher education programs. Seventy percent of the participants in the **South Carolina Teaching Fellows Program** were teacher cadets during high school. Systematically recruiting fellows from the teacher cadet population is a promising practice. Further research could reveal whether the high retention rate of fellows can be attributed to this practice—and to what degree. Through **Diverse Pathways**, a five-year project extending until 2009 that is supported by U.S. Department of Education Teacher Quality Grants, CERRA aims to ensure that South Carolina's future teaching force reflects the diversity of the state's student population. Two universities with comprehensive teacher education programs, three two-year colleges, two high-need school districts, and the Bell South Corporation also participate in the program.

In South Carolina, half the minority students who attend college start at two-year institutions. A key goal of **Diverse Pathways** is to smooth their educational transition to four-year institutions. Now completing its fourth year, the program has three main objectives:

- To provide freshman and sophomore-level courses that fulfill teacher education program requirements for technical college students and clinical experiences that model the best practices for teaching high-need students
- To increase the diversity of students in teacher education programs by expanding recruitment efforts in middle school, high school, and twoyear colleges
- To establish a professional learning community that ensures the success of those who pursue teacher licensure at critical phases of their development.

An evaluation of **Diverse Pathways**, conducted during the fourth year of the program by the University of South Carolina College of Education's Office of Program Evaluations, indicated that the program is having some success. More students of color from twoyear institutions (called technical colleges in South Carolina) have enrolled in four-year teacher education programs at the University of South Carolina and the College of Charleston. Interviews revealed a variety of issues, most of which revolved around transferring credits and finding space in upper-level classes. Data on college completion and actual entry into the teaching profession were inconclusive.

Diverse Pathways hopes to demonstrate that the engagement of community college—sometimes called the "missing rung" on the teacher education ladder (Anglin, et. al., 1993)—is particularly significant with regard to minority teacher recruitment. Consider, for example, Florida's Miami Dade Community College, where 88 percent of the students in the Bachelor of Science program in teacher education are Hispanic or African American. A majority of graduates from this program stay in the community to teach.

Perkins funding shapes new programs

The Carl D. Perkins Career and Technical Education Act, which was most recently reauthorized in August 2006, provides \$1.3 billion annually for career and technical education (CTE). CTE is broadly defined as education that equips students with practical skills that can be applied to postsecondary education and the careers of their choice. Teaching has recently become an area of CTE interest and funding. Many directors of precollegiate teacher recruitment efforts readily admit that their programs are heavily dependent on federal Perkins dollars.

Like South Carolina, other states are striving to develop seamless, statewide education career pipelines. They, too, break the mold of past models that often blunted the potential impact of teacher recruitment efforts. The programs described below recognize the importance of the community college connection and attempt to build meaningful collaboration and coordination among institutions all along the teacher recruitment continuum.

The Arizona Teacher Cadet Program, which began in 2002 as a career and technical education "bridge" for eleventh and twelfth graders, focuses particularly on recruiting first-generation college students and minorities. Currently, the program reaches 70 high schools and 1,200 students; the addition of another 20 schools is anticipated in the next year. The program primarily draws on recurring federal Perkins funds, supplemented by state professional development funds that support training for instructors.

Approximately 65 percent of the students who complete the program are involved in a paraprofessional teaching position or college studies. Grants have supported the development of program articulation between high schools and community colleges to the point that high school students can graduate with up to six hours of dual credit and have the option to pursue an associate degree in the arts of teaching (with an elementary focus). The relationship between the teacher cadet program and Maricopa Community College, which includes comprehensive academic advising and rich field experiences, exemplifies a strong secondary-postsecondary partnership.

Program administrators report a number of challenges. Funding flows through CTE sources and is based on student enrollment, so training costs are not a barrier. Once teachers are trained, however, it is difficult to find human capital to support them in using the curriculum, developing stronger skills as instructors, sharing best practices, and networking with colleagues in other schools. All the program leaders who were interviewed stressed the need for ongoing instructor support, routine program quality checks, and in-depth evaluation. Currently, Arizona's only evaluation tool is a survey of cadets administered nine months after they graduate from high school.

Colorado Teacher Cadets, a program established in 2003, grew out of the state Department of Education's interest in establishing a better defined teaching pipeline, with concrete career connections. The program is funded through a two-year state grant, which is supplemented by federal Perkins funds. Currently operating in 35 schools across 19 districts, the program takes advantage of statewide community college articulation agreements with K-12 programs.

Specific learning activities in Colorado's high school cadet program are aligned with college-level introductory education courses. Instructors in the cadet program meet for professional development twice a year; virtual networking is strongly encouraged. In the last two years, online workshops (with graduate credit) have been available for instructors and cooperating teachers, who work in their classrooms during field experiences.

Virginia Teachers for Tomorrow, which was started in 2002, mirrors the South Carolina Teacher Cadet Program in key respects. The programs differ, however, with regard to staffing. Virginia uses "master trainers"—four part-time and one full-time teacher to provide professional development—instead of full-time teachers-in-residence as South Carolina does.

Approximately 1,340 students in 115 Virginia high schools (about one-third of the total) enroll each year. After instructors are trained, they become part of a virtual discussion group supported by the state Department of Education. A recently secured federal grant will be used to incorporate the history of education in Virginia in the curriculum and to conduct end-of-course assessments. The availability of Perkins funds will determine whether the program continues.

HIGH SCHOOL TEACHER ACADEMIES Going beyond a single course

High need schools and their communities are responding to teacher shortages with "grow our own" programs called "teacher academies." Self-contained, comprehensive academic programs within large high schools, teacher academies tend to share these characteristics:

• Elective courses beginning in ninth or tenth grade related to teaching, learning, child development, and child care

- Precollege internships at elementary, middle, and high schools for juniors or seniors
- Partnerships with local colleges, universities, and community colleges.

One of the first teacher academies was launched in the Bronx, N.Y., at Walton High School, when it was redesigned and divided into "houses" to provide better academic support for students. In 1984, Phyllis Opochinsky founded the **Walton-Lehman Pre-Teaching Academy** in partnership with Lehman College. Students were eligible to begin the structured program in eleventh grade if they had passed all their classes and maintained a 75-percent average. Participants took part in a two-year internship. They could also take courses at Lehman College for college credit. Lehman and Walton faculty served as cooperating teachers for the academy.

A significant majority of participants in the program were students of color. Participants graduated at a much higher rate than Walton's population as a whole (as few as one-third made it to graduation) and many entered college teacher preparation programs (Berrigan, Schwartz, and McCadden, 2000). Walton High closed in 2008, but the program will continue as part of the **High School for Teaching and the Professions**.

Many directors of newer teacher academies say Walton's innovative program is important to their own work. For years, Walton's academy was closely associated with the now defunct Recruiting New Teachers, Inc. (RNT). An RNT toolkit published in 2000, *A Guide to Developing High School Teaching Career Academies*, included a detailed plan for creating, implementing, and sustaining programs that grow teachers for local schools. Many programs operating today have used RNT's practical suggestions to design curriculum, recruit students, and train instructors. *Locus of control shifts to states*

Early teacher academies like the one at Walton High were often the result of leadership from local stakeholders. The

emergence of Perkins dollars as a funding mechanism for precollegiate teaching career development shifted the locus of control to the state Departments of Education that hold the Perkins purse strings.

Ohio's Teacher Academy Program is a case in point. Launched in 2002, it drew heavily on the RNT blueprint in the early stages of development. Today, the Ohio Department of Education supports teacher academies across the state. They combine the standards and funding of Perkins career and technical education and the energy and focus of the Ohio chapter of the Future Educators Association (FEA).

Specialized coursework begins in students' first year of high school (ninth grade) and continues through senior year, when students attend classes and weekly seminars that introduce them to child development, learning theory, teaching techniques, and classroom management. Students can intern at local elementary schools and earn up to six college credits through transfer agreements with local colleges. CTE funding for Ohio teacher academies is based on high school student enrollment, as it is for other workforce paths.

Ohio's program is too young to provide substantial data on the ratio of students who complete the high school curriculum, graduate from teacher education programs, and enter the classroom as teachers. Even so, Arizona, New Jersey, and Colorado are implementing models that echo the Ohio approach.

National FEA leaders hope that their organization will serve as a clearinghouse for program information and student data in the near future. At the time of this writing, the national FEA office is one of the few sources of useful information about student activities in precollegiate teacher recruitment programs.

CREATING AND SUSTAINING PROGRAMS Shared characteristics and challenges

The precollegiate teacher recruitment program models discussed above share some important characteristics and emphasize common curricular elements, including:

- Education history
- K-12 teaching careers options
- Professional standards
- Learning styles
- Human growth and development
- Celebrating diversity
- Classroom observation
- Job shadowing
- Personal planning
- Developing self-awareness as a teacher and learner.

Increasingly, such programs also seek to establish partnerships that will produce a seamless pipeline for teaching career pathways—beginning at the high school level and culminating in two- and four-year college programs.

The programs studied here also share some significant challenges, especially with regard to funding and evaluation. All the program leaders who were interviewed acknowledged that funding is scarce. Without Perkins career and technical funding, they said, most precollegiate teaching recruitment efforts would cease altogether.

Few programs evaluate effectiveness

In 2000, Recruiting New Teachers published a recruiting guide that identified 250 exemplary high school teacher preparation programs. Roughly half are now defunct. And those that remain have not captured comprehensive data on the number of participants who have completed the program, achieved state licensure, and entered the classroom.

Data on how effectively programs recruit teachers from diverse backgrounds are also elusive. Program leaders agree that recruiting minorities and males are admirable goals, but confess that they find themselves pushing for participation of any and all qualified students interested in teaching. Pressure is high to recruit any young person, regardless of gender or ethnicity, due to growing teacher shortages. Moreover, in many cases, student enrollment drives funding.

Few of the programs we reviewed were able to share specific targets, goals, or outcomes beyond those embedded in mission statements. Program directors recognize that data collection is nonnegotiable in order for their programs to grow, develop, and build enduring political support. While acknowledging the need to document the impact of their programs, few had done so.

Program staff attributed the lack of evaluation to a lack of staff to collect and analyze data. They explained that the small staffs of their programs feel obliged to spend their available hours actively supporting the program's infrastructure—students and instructors—not on designing, collecting, and analyzing performance data.

Program administrators noted the absence of a comprehensive system to track students' progress through the teacher career pipeline—from high school to community and four-year colleges, licensure, and employment by school districts. Almost everyone we interviewed said they were involved in an effort to create comprehensive data tracking and warehousing at the state or local level. In the absence of a central information clearinghouse, we have no way to judge the prospects of developing such systems across states and programs.

Instructors often feel overwhelmed, isolated

Our review of the literature about minority recruitment yielded information on many start-up programs at the school and district level. Many of these initiatives relied on central leadership (a state organization, university or education association) to serve as an oversight body for budgetary requirements. But responsibility for recruiting participants almost always rested on the shoulders of participating classroom teachers. Instructors find it difficult to devote the amount of time and energy needed to identify, recruit, teach, and place students. In most cases, teaching the curriculum and generating excitement and awareness about teaching careers is the easy part of the work. Building working relationships with administrators and guidance counselors in their own schools *and* in the cooperating schools where students gain field experience is challenging and time-consuming.

Instructors find themselves scheduling classroom observations, college days, and guest speakers—all with little or no additional time or compensation. It is no wonder that these teacher-leaders find their multifaceted role challenging. Nor is it surprising that individual school-based instructors, who often work alone, find it virtually impossible to track students after they complete the high school program.

As instructors and program directors discussed the challenges they face, they frequently mentioned the isolation issue. Many feel that they lack the solid support of administrators, personnel directors, guidance counselors, and leaders of schools of education and community colleges.

Increasing diversity proves difficult

The teaching profession continues to have too few teachers of color, while the student population becomes ever more diverse. The increase in student diversity and the "globalization" of education have created needs that go beyond the call for "teachers who look like the students they teach"—the mantra of the 1980s and 1990s. Today, teachers of all ethnic and social backgrounds need to be culturally sensitive and globally aware.

Another issue that emerged from our research is the need for training to develop cultural competency. Program resources are being drained by demands to provide better cultural competency training for all preservice candidates, even at the high school level. Ironically, the very challenges these programs seek to address are responsible for the growing need.

In the course of our research, and in conversations with directors of precollegiate and community college recruitment programs, the difficulty of growing the pool of prospective teachers of color was explained the same way again and again. These explanations were not excuses or reasons to abandon the effort, but insights and understandings that could help craft new, more effective approaches. Among them:

- High school cadet courses and teaching academies compete with other career-focused programs of longer standing for students of color (including nursing, medicine, engineering, business, and agriculture). They also compete with special interest programs in math and science, which can start as early as middle school and are often aggressive about recruiting students.
- As the shortage of high school guidance counselors grows, fewer are available to help cadet and academy directors recruit students and prepare them for college admission. The problem is most severe in high-need schools, where students often come from families without college traditions. In low-performing schools and districts, the preoccupation with standardized testing (often part of the counselor's job description) leaves little time for cadet or academy support.
- Cadet and academy program directors note that many parents of color resist when their children indicate interest in exploring teaching as a career.
- Teachers, research shows, often play a major role in determining whether their students become teachers. Teacher morale is at low ebb in many schools. Even accomplished teachers may be reluctant to promote teaching as a career to the most capable students.

• College scholarships for would-be teachers often have substantive academic performance requirements (SAT and ACT scores, and grade-point averages). As a state program director said, "The achievement gap issue is not only an issue for schools, it's a barrier for scholarship programs that have a high academic standard to qualify." As this director observed, qualified candidates of color "always have many other options" and a \$26,000 four-year scholarship may not be competitive.

CONCLUSIONS

Despite the barriers, dedicated K-12 and college educators are creating pathways for potential teachers. The issue is how wide these pathways are and how wide they could be.

In many instances, educators provide support that goes beyond typical high school-based career preparation. One program director uses a "three-legged stool" metaphor to make that point to the policymakers and bureaucrats who hold the purse strings. As she puts it, an effective pre-teaching program must include:

• Rigorous instructional content aligned with state teacher preparation requirements

- Work-based experience throughout the program
- Professional development for budding educators provided by organizations like the Future Educators Association.

Efforts to establish programs with this level of sophistication across schools and districts are spreading, to some degree, thanks to collaboration among state career and technical education directors and other advocates. But teacher shortages and the need for a more diverse teacher corps cannot be met by current recruitment programs alone. Nor can these programs fulfill their potential as long as they are underfunded, under-supported, and semi-connected at best.

A systems approach is needed to address the staffing needs of America's schools, particularly those of hard-to-staff areas and high-need schools. The rise in cadet and teaching academy programs, coupled with increased federal funding to support teaching explorations as part of career and technical education, suggest that education deserves full status in workplace investment initiatives. At the same time, the lack of sustained leadership at national and state levels—and the failure to make teacher recruitment a priority—puts even the most substantial programs at risk.



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Recommendations

Sustain and establish additional, recurring funding streams

Funding for recruiting minority teachers has been used to create and, in many cases, implement programs that serve as pipelines to the classroom. Unfortunately, funding for most of these programs is short-term, so they last only as long as "seed money" is available. The most reliable funding stream is the Perkins Act—`federal dollars flowing through the career and technical education channel. There are, however, indications that even this relatively stable funding source cannot be relied upon indefinitely.

States like Arizona and Colorado, where leaders have intentionally woven together teacher cadet courses, teacher academies, and CTE, have more funding for recruitment and program oversight. The downside appears to be that all the programs that receive CTE funds are competing for the same population of students. For example, just like teaching, engineering and health occupations have a critical need for students who are proficient in mathematics and science.

Teaching often finds it difficult to compete for high school students who naturally consider—and compare—salary and career advancement opportunities in other fields. Support earmarked for teacher academies can help sustain recruitment efforts, but teachers' salaries and working conditions need to be improved as well.

Take steps to promote seamless teacher recruitment pipelines at the national, state, and local level

The isolated nature of many teacher recruitment efforts—K-12 as well as higher education—underscores the need for policy leadership. At the federal level, strategic funding for states can provide an impetus for serious articulation efforts among secondary schools, community colleges, and universities.

State leaders can accelerate the process with incentives and sanctions that draw together the disconnected segments of our education system and compel concerted action. At the local level, the proper incentives can bring about greater cooperation among school districts and two- and four-year teacher education programs, capitalizing on research that shows the best sources of new teachers are local and regional populations.

Enhance the role of community colleges to reach a more diverse population of potential teachers

The role of community colleges in addressing teacher recruitment issues looms large as more students, including students of color, "stay local" to avoid higher tuition farther from home. Community college leaders recognize the need to attract minority students who are proficient in math and science. For example, Monroe Community College in Rochester, N.Y., augmented its fledgling teacher education program with an Urban Education Institute to "train, recruit, and retain future urban math and science teachers ... through authentic exposure to the unique challenges often faced by urban teachers and students...." (Wassdrop, 2008).

One barrier to greater community college participation in new teacher development is the perception that two-year programs make fewer demands on students than four-year institutions. This perception is exacerbated by the failure of two- and four-year institutions to agree on common college-readiness standards (Bottoms & Young, 2008). Organizations such as the National Association of Community College Teacher Education Programs can help break through some of these barriers.

"(The) vast majority of teachers choose to teach near where they grew up and attended college." (Boyd, et al. 2005). Policymakers may want to create "drivers" that encourage community colleges and universities to think beyond traditional roles, abandon turf battles, and work together to expand the minority teacher recruitment pool.

Create a national clearinghouse to collect data all along the pipeline of teacher preparation

Many of the programs studied for this report have connections with the Future Educators Association, which is supported by Phi Delta Kappa. The Perkins Act requires high school career-track education to involve participants in career-tech student leadership organizations. As more cadet and academy programs take advantage of CTE funding, the number of state and local FEA chapters grows.

FEA also fills teacher cadet and academy instructors' need for professional development and collaboration with peers. With the necessary leadership, funding, and support, FEA would be well positioned to serve as a national data clearinghouse—and policy advocate—for precollegiate teacher recruitment programs.

There is an urgent need for funds earmarked to support research and assessment of promising pre-collegiate recruitment strategies, including emerging "hybrid" programs. A national clearinghouse could be a source, and perhaps an arbiter, of grants for such evaluations. The cost of identifying the most successful recruitment strategies would be more than offset by the creation of a large, diverse, highly capable pool of teachers.

Use marketing targeted to today's teens and young adults

Successful recruiters for precollegiate programs create a picture of teaching that meets the expectations of today's bright and capable high school students. A community college recruiter who works with a number of high schools noted that he "markets" teaching with messages about social change and improving the quality of life and well-being of communities appealing to altruism and other characteristics some research has associated with the Millennial Generation (roughly, people born in the 1980s and 1990s). Promoting such messages goes hand-in-hand with our final recommendation.

Work to establish consensus and political will for systemic changes in the teaching profession

In the long term, attracting capable young people to teacher training programs and teaching careers depends on the commitment of national, state, and local policymakers to improving teachers' working conditions and elevating the status of teaching as a profession. Ineffective, frustrating, and highly dysfunctional work environments only add to recruitment challenges.

While working conditions—particularly strong leadership—have the greatest impact on teachers' long-range career considerations (Berry, 2007), potential candidates are likely to be equally concerned about equitable, professional, market-conscious salary structures. This may be particularly true for promising minority teaching candidates, who may be lured into more lucrative careers (Education Alliance at Brown University, 2004). Effective teacher recruitment remains one of education's most daunting challenges. Inconsistent funding and limited strategic partnering among teacher recruitment initiatives is part of the problem. But lack of public consensus about advancing teaching as a profession is just as responsible.

We can — and should — search for short-term solutions to immediate teacher supply problems. But we will not make major, sustainable progress in recruiting teachers and equipping them to meet the needs of 21st century learners — or increasing the diversity of teacher force — until we overcome the lack of political will to professionalize teaching.



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