

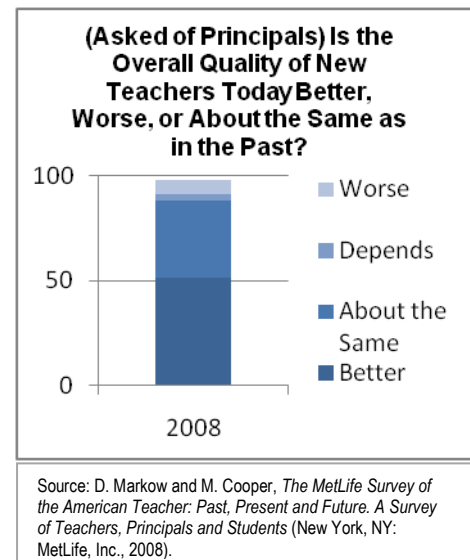
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Teaching for a New World: Preparing High School Educators to Deliver College- and Career-Ready Instruction

By M Miller

It is simple. If we want the very best for our students, their teachers must be able to provide them with the very best education. The members of the next generation of Americans will need to graduate from high school ready to compete in a world of rapid globalization, burgeoning technological innovations, and changing labor markets. They will need to be informed citizens in a complex world. Not only do our students need to be primed for this new world, our teachers must be prepared to guide them. Yet, just as our students do not always receive the preparation they need for twenty-first-century success, neither do all of their teachers.¹ All too often, the two situations are interrelated.²

It is well established that teacher quality is one of the most significant school influences on student achievement.³ Unfortunately, it is less clear how teacher education programs can prepare and recruit effective educators for every classroom. Lack of research,⁴ insufficient data-collection systems,⁵ and no definitive agreement as to the preparation candidates need have resulted in a long-standing debate about teacher education in our country. But policymakers, researchers, and practitioners alike are still seeking more effective reform of the preparation teachers receive before they enter the classroom—something not happening as rapidly or extensively as needed. While there is evidence that some teacher education reforms may be succeeding—for example, more than half of principals and two thirds of teachers surveyed in the 2008 MetLife Survey of the American Teacher reported that the quality of new teachers and their training has improved⁶—a survey of new teachers in that same year found that only 44 percent felt “very prepared” for their first year of teaching.⁷ Furthermore, high school teachers typically feel less prepared than elementary teachers for the challenges of their work.



As the global economy demands that all students are college and career ready after high school, teachers must be educated and supported to instruct to this higher standard. Despite pockets of excellence across the country in the ways teachers are prepared in both traditional and alternative routes,⁸ there is a need for a new, comprehensive vision.

This brief offers a new conception for secondary teacher preparation that ensures candidates are able to prepare students for college and career success after high school,^a encourages a shift to the skills, knowledge, and competencies candidates should have once they become classroom teachers of record, highlights the need for improved teacher performance assessments and data systems, and contemplates how federal policy can support the realization of these goals.

A New Expectation for Teaching—College and Career Readiness for All

Traditionally, students entering high school—and often even earlier—were sorted into one of three pathways: one for those who anticipated attending college, one for those who were prepared for vocational work, and one for those neither going to college nor planning to pursue a vocational career. This resulted in divergent expectations depending on the student’s track; consequently, the role of high school teachers and how they needed to instruct each group of students were also different. Teachers were responsible for helping their bright, motivated, college-bound students excel, but non-college-bound students were held to a different, lower standard. This may have been acceptable in years past, when many good-paying jobs were available to those with limited educational background. But it is no longer enough. Today, the overwhelming percentage of new jobs that offer a wage sufficient to support a family and provide opportunity for career advancement require some postsecondary education,⁹ and evidence shows that the skill level required to enter college or a work-training program are the same.¹⁰ In order to ensure a sustainable future for all Americans, teachers must be able to prepare *all* of their students for college and careers.¹¹

“The challenge facing education schools is not to do a better job at what they are already doing, but to do a fundamentally different job. They are now in the business of preparing teachers for a new world.”

—Arthur Levine

A. Levine, *Educating School Teachers*
(Washington, DC: Education Schools Project,
2006).

The ability to educate all students to the highest standards requires a host of new skills that many secondary teachers do not currently develop during pre-service preparation or in-service professional development. To add to these new expectations, teachers are facing increasingly diverse student populations. In addition to students having a wide variety of learning needs, most of today’s classrooms contain students with more varied racial, linguistic, and cultural backgrounds than in the past.¹² While it may not have required as much preparation for prospective high school teachers whose main responsibility was to educate the students who were already college directed, preparing all students for college and careers changes the nature of the teaching job and, therefore, how prospective teacher candidates need to be trained.¹³ Given today’s rigorous academic demands, teachers must be able to differentiate instruction to meet the needs of all of their students.¹⁴

Unfortunately, while the student population as well as the expectations set upon them are rapidly shifting, most pre-service preparation programs, both traditional and alternative, have not adapted to help teacher candidates meet the needs of today’s classroom.¹⁵ Clearly, new standards geared to college- and career-ready instruction need to be determined for new teachers, but this alone will not ensure effective educational reform. There also needs to be a focus on candidates’ abilities to meet these new standards once they become the teacher of record in the classroom.

^a While all K–12 teacher education candidates need the skills to prepare their students for college and career success no matter what grade they will teach, because the Alliance for Excellent Education is a policy organization focused on high schools, this brief will focus on secondary teacher education. However, as there is a scarcity of research specific to the preparation of high school teachers, the majority of the information in this brief can be generalized throughout K–12 preparation.



Shifting from Coursework to Performance

In the past, in order to address concerns about the quality of teacher education programs, reform has often focused on the regulation of “inputs”—that is, the courses and experiences candidates need to undertake before they become the teacher of record. The belief has been if teacher candidates encountered a particular set of classes and experiences, they would be ready for their first day in the classroom. But which specific classes should teachers receive and what experiences should they have to be effective in the twenty-first-century classroom? While there is some evidence about important elements of secondary school teacher preparation—for example, a strong knowledge of content and subject-specific teaching methods—much is still uncertain about the best way to prepare candidates to help all students succeed.¹⁶

Additionally, until relatively recently teacher education students were typically young white women attending a four-year college. Today’s candidates are increasingly diverse, bringing different backgrounds and skills to their preparation programs. An eighteen-year-old middle-class teacher candidate will likely require different preparation than a twenty-seven-year-old engineering major who wants to teach in the low-income neighborhood in which he grew up, or a sixty-year-old politician at the end of her political career who is well versed in civics but lacks the pedagogical skills and experience necessary to instruct in a low-performing school. Not only may these teacher candidates need differentiated supports and training, they also come with skills of their own that can inform teacher preparation. For instance, the youngest generation of teacher candidates can offer insight into how the broader community of teachers might utilize new technologies already familiar to their students, in order to improve engagement and achievement.¹⁷ Given that the candidates entering teacher education programs have such a wide range of skills and experiences, it is understandable that no one model has been determined to work best for every potential teacher.¹⁸

“Adding a course, or even several courses, to a teacher education curriculum does little to address the larger teacher education reform imperative.”

—Linda Blanton and
Marleen Pugach

L. Blanton and M. Pugach, *Collaborative Programs in General and Special Teacher Education: An Action Guide for Higher Education and State Policy Makers* (Washington, DC: Council of Chief State Schools Officers, 2007).

Finally, regulating coursework for teacher candidates offers no assurances for how effective they will be on their first day as the teacher of record. Instead, policymakers would be wise to shift the focus to teacher performance “outputs”—measurable skills of effective teaching based on the academic successes of their students. All teachers, no matter their pathway into the secondary school classroom, should possess and exercise these skills in order to prepare their students for success after high school. In this way, a single set of high expectations can be set for every teacher candidate while allowing pre-service preparation programs—traditional or alternative—to take innovative approaches to meet the specific needs of their candidates.^b

^b Clearly, this does not imply that all teacher development must occur during preparation. It is critical teachers receive strong mentoring and induction in their first few years in the classroom and effective professional development throughout their careers. However, it is vital to ensure on the very first day of school all students receive the high-quality instruction they justly deserve.



Moving Away from the Traditional Versus Alternative Pathway Debate

Across the country, there has often been a shortage of secondary school teachers, especially in special education and the science and math fields; the problem is exacerbated for those willing and able to teach in high-poverty schools, where salaries and working conditions are often poorer.¹⁹ There has been much disagreement over the past decade about how best to recruit, prepare, and place a wider range of teacher candidates into hard-to-staff schools and hard-to-staff positions.²⁰ For some time, most teachers in most states have been prepared only in undergraduate programs, limiting access for later entrants. Furthermore, late hiring practices have reduced access for many urban districts to new teacher pipelines. As a result, alternative options have become increasingly popular. By 2008, all fifty states and the District of Columbia had created at least one alternative route to teacher certification, and from 2001 to 2006 the number of teachers entering the profession through alternative route programs almost tripled.²¹ However, in the research, policy, and practice worlds there has been intense debate about the effectiveness of alternative options as compared to traditional pathways, often leading to grave disputes and impeding the overall goal of reforming the preparation teacher candidates receive. In truth, just as traditional programs vary significantly in quality, so too do the alternative pathway models.²² Researchers agree that questions about good preparation will not be resolved merely by comparing pathways to one another.²³ Becoming mired in the comparison of alternative versus traditional programs does not help the nation move closer to preparing students for twenty-first-century success. Instead, the conversation should focus on the critical need to increase standards for teacher education—regardless of the route taken to the profession.²⁴

Key Elements of What Secondary Teachers Should Know and Be Able to Do

While the question of what beginning teachers should know and be able to do is not a new one,²⁵ the new mandate to help every child graduate ready to succeed in the twenty-first century suggests the need for significant changes in teacher training.²⁶ Generally, enough secondary teachers are prepared to teach the best and brightest students to succeed, yet too many teacher candidates lack the skills required to ensure that *all* students leave high school college and career ready. Critical areas in which today's effective teachers must show competency are:

- the ability to work with diverse learners, including special education students and English language learners (ELLs);
- the capacity to teach adolescent literacy skills regardless of the content area;
- the ability to effectively use assessment and data to impact teaching and learning;
- the ability to teach in specialized teaching environments, including urban and rural settings; and
- the ability to convey content knowledge to students in an understandable manner, tailored to the academic discipline.

Educating diverse learners. Twenty-first-century classrooms are more diverse than ever, and teachers must be prepared to instruct students with a wide range of learning needs. From 1996 to 2006 there was a 31.3 percent increase^c in the number of minority students enrolled in elementary and secondary public schools.²⁷ Similarly, from 1995 to 2005 there was a 57.2 percent increase in the number of students with limited English proficiency enrolled in pre-K–12 public schools.²⁸ Not only should today's teachers be able to incorporate the cultures and experiences of their students into the classroom, they also need the skills to help all students succeed, no matter the student's learning difference, disability, or command of the English language.²⁹ It is important to note that while students with learning and linguistic challenges have been categorized as low performers on state achievement tests, many general education students

^c This does not include students who choose not to report their race or ethnicity.

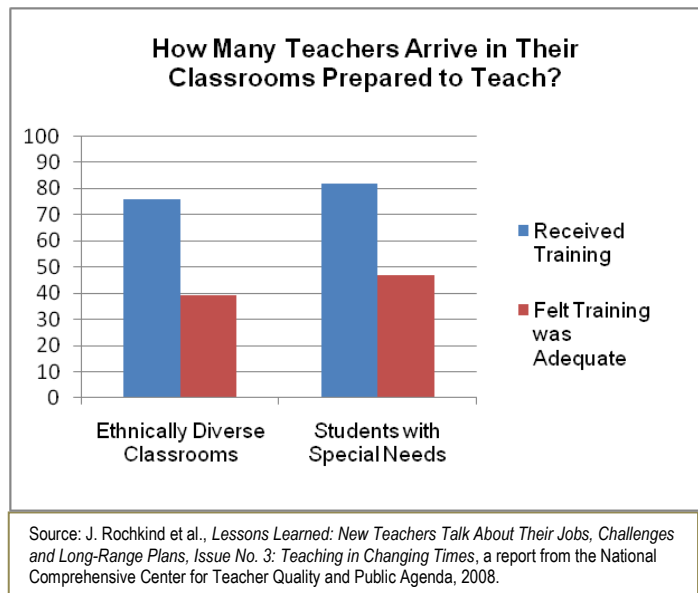


also fall in that category. In fact, in the 2008 MetLife Survey of the American Teacher, 49 percent of secondary school teachers agree that they do not feel they can teach the range of diverse learners in their classroom effectively.³⁰

Teachers must hold college and career readiness as the goal for all of their students and must be able to deliver instruction sensitive to students' different needs.³¹ Meeting these expectations is a complex undertaking, and requires that teachers have multiple kinds of knowledge and skills.³² Historically, only a subset of teachers learned the skills necessary to work with diverse learners, including ELLs and those with special needs. This is no longer sufficient for today's classrooms.³³

Though many pre-service preparation programs include some sort of coursework that addresses educating diverse learners—a reported 76 percent of students had a course related to ethnic diversity, and 82 percent took a course involving special needs education³⁴—too many of these programs are not effective.

The majority of new teachers report that they do not feel their training adequately prepared them for the classroom—only 39 percent felt adequately prepared for their ethnically diverse classroom, and 47 percent felt adequately prepared to teach their special needs students.³⁵ That a high percentage of teacher candidates had the prescribed inputs—at least one course related to diversity—but still felt unprepared emphasizes the need for an even greater focus on developing teachers' ability to teach diverse learners—irrespective of the number of diversity courses candidates receive during pre-service preparation.



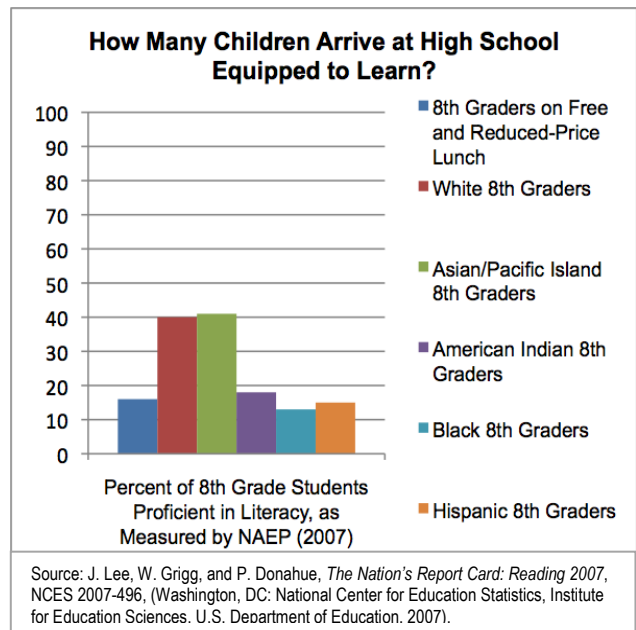
Diverse Learners: Portland State University Secondary Dual Educator Program

Some programs are beginning to prepare teacher candidates to address the needs of an increasingly diverse student population. Portland State University in Oregon offers teacher candidates a degree that integrates secondary and special education pedagogy through the Secondary Dual Educator Program (SDEP), and builds the teacher candidate's ability to teach diverse learners. The program recruits post-baccalaureate candidates with a strong foundation in their content area and provides extensive field experiences in addition to courses taught across the secondary and special education departments. During their six terms, teacher candidates participate in more than eight hundred hours of fieldwork in special and general education. Candidates learn how to differentiate content for a diverse range of learners, accommodate the needs of diverse students within inclusive classrooms, teach literacy skills to struggling readers, and adapt lesson plans and instruction for students with varying cultural, social, and linguistic backgrounds.

Two classes of candidates have graduated from the program, and the results are promising. Teachers using the knowledge and skills taught in the program have been able to increase student gains for English language learners, gifted and talented students, and students with disabilities. Additionally, surveys of principals with SDEP teachers indicate that those teachers demonstrate more empathy for students with disabilities, plan with needed accommodations in mind, assess and address learning needs, make data-based decisions, address student needs themselves more frequently (rather than calling a specialist), and have higher expectations for students with disabilities than teachers without the dual degree.³⁶



Teaching adolescent literacy skills. Far too many of our nation’s young people do not have the adolescent literacy skills they need to be successful in high school coursework, let alone the skills required to be ready for college or a career. For low-income and minority students, the outcomes are even worse.³⁷ Yet many middle and high school teacher candidates, including English teachers, see themselves as content specialists and do not receive training in their teacher preparation courses to teach literacy skills within their subject area.³⁸ In general, high school teachers rarely teach reading comprehension strategies in the upper grades, and also fail to include reading-heavy assignments or expose students to complex texts as often as students need so they are prepared for college-level work.³⁹ To ensure that our students are college and career ready, all teachers, no matter their content area, need to be able to incorporate literacy instruction within their classrooms.



Adolescent Literacy: University of Michigan

The ability to ensure that high school students graduate with the literacy skills they will need to be successful in college and careers is an important skill to incorporate in teacher preparation. The teacher education program at the University of Michigan (UM) recently expanded a pilot program to change the way they train pre-service teachers in adolescent literacy. Pre-service teachers take a literacy-methods course following their content-area pedagogy courses. These courses are broken down by academic major, so professors are able to tailor each class to relate literacy directly to the candidate’s relevant discipline. The literacy professor also works with the faculty of the field-based experience to ensure that pre-service teachers are given opportunities to practice skills learned in literacy class. Faculty members collaborate and often coteach each other’s courses in an effort to create a highly integrated literacy strategy.⁴⁰

UM has also incorporated an evaluation element, which allows faculty and candidates to reflect as the program and its candidate progresses. Assessments have revealed differences across disciplines in attitudes and beliefs about a teacher’s role in literacy instruction. For example, mathematics majors tend to demonstrate the lowest commitment to content-specific literacy instruction. Gauging pre-service teacher attitudes and discovering areas of need has allowed UM to address more directly the needs of different content-area teacher candidates.

Demonstrating proficiency in assessments and data use. In the past, some educators may have used data from a classroom quiz or test to answer the question, “Have my students learned?” Expectations, however, have significantly changed in the twenty-first-century classroom. Today, teachers need to use multiple sources of information to inform their instruction, including students’ daily work, informal quizzes, surveys detailing students’ background information, end-of-course exams, and state-mandated tests. In addition, teachers must be able to differentiate instruction to match each student’s needs and abilities. In order to do this, teachers must not just ask, “Have my students learned?” but also, “How do I fill in the gaps for what each student does not understand?”⁴¹ Assessment literacy skills—knowing how to create quality assessments and effectively use them and data literacy skills—how to read and interpret data effectively, and, most importantly, to adjust instruction accordingly—need to be developed before a teacher candidate enters the classroom.⁴²



Using Data and Assessments: Teach For America

Teachers need to be able to use assessments and student data effectively in order to measure and increase student achievement. Teach For America (TFA), an alternative pathway program, trains teachers—called corps members—in using data to achieve this end. During the candidates' group interview day, they are given a state report card with school achievement information and asked to strategize what steps they might take.⁴³ In their summer training institute, where the program provides pre-service support, corps members are trained to use student achievement tool kits, which contain student performance data and tools for measuring and improving student performance. These help corps members develop clear goals and plans for their students, because once candidates begin teaching, TFA expects them to achieve set objectives with their students^d that include increasing student test scores on state assessments. The ability to measure student achievement and use the results to make decisions about next steps is crucial to achieving these objectives. TFA also encourages their corps members and alumni to be active users of assessments, as evidenced by the recent creation and use of an online resource exchange open to corps members and alumni that holds a bank of vetted assessment items.⁴⁴

Preparing to teach in high-need schools. Preparing all students for college and career readiness can be especially difficult in low-performing urban and rural communities. Not only is there an insufficient supply of teachers being trained for these positions, those who are already in the pipeline often are not prepared for the unique environment in which they will be teaching. In rural areas, for example, incoming teachers are rarely prepared to teach multiple subjects, teach students with a wide variety of learning abilities, or teach students spanning a wide range of ages and grade levels in the same classroom— all of which are common expectations in rural schools.⁴⁵ Teacher candidates interested in urban schools often lack a strong understanding of how best to work with students and parents from different cultural and economic backgrounds, how to partner with families and the community to improve student achievement, and how to facilitate a supportive learning culture with one's fellow faculty members in what can be a chaotic and impersonal teaching environment.⁴⁶ Not only do pre-service teacher education programs need to specifically target, recruit, and train teachers for the nation's neediest schools, at the end of their program, whether traditional or alternative, these candidates should be able to demonstrate the ability to teach within the specialized environments in which they will be working.

Urban-Specific Training: Urban Teacher Residency Programs

Urban Teacher Residency (UTR) programs offer a unique approach to teacher preparation that attracts high-caliber, committed candidates and prepares them to help students excel in high-need, urban schools. Currently only a handful of programs exist across the nation, though the numbers are growing. While each program varies, a few defining characteristics can be found in most UTRs. Teacher candidates, known as residents, are selected according to rigorous criteria that have been aligned with districts' needs. Unlike traditional university programs, residents are immediately placed in a classroom—an urban classroom—alongside an experienced mentor teacher. At the same time, residents learn how to connect theory with practice as they take master's-level coursework, ultimately resulting in licensure and a master's degree. In the second year, when residents become the teacher of record, they continue to receive intensive mentoring. Programs seek a commitment to teach in the district, ranging from three to four additional years after the residency year; some provide loan-repayment incentives instead of a formal commitment request.

In two of the more established programs, Boston Teacher Residency and Academy for Urban School Leadership in Chicago, 90 to 95 percent of graduates are still teaching after three years, and, while the programs are still too new to produce reliable evidence of raising student achievement, school administrators give high marks for graduates' skills and competencies. UTRs not only ensure that a teaching candidate is prepared to teach in an urban environment before becoming the teacher of record, their approach also fosters collaboration among teachers and directly addresses the teacher-supply needs of a district. This strong connection with schools and the community allows UTRs to help districts play an active role in the quality and direction of their teacher pipeline.⁴⁷

^d In past years this has meant at least one and a half years of growth in one year, an effort to help close the achievement gap.



Mastering content-area knowledge and content-specific instruction. A great deal of attention has been paid to a teacher’s mastery of his subject matter. Content mastery—the comprehensive knowledge of one’s academic discipline—is indeed an essential part of teaching at all levels of instruction. Elementary teachers must provide a solid foundation, and secondary teachers must prepare students for college and career success. However, teachers must not only know *what* to teach but also *how* to teach a particular subject.⁴⁸ This pedagogical content knowledge not only allows teachers to relay information in a more comprehensible manner, but also empowers them to anticipate and identify misunderstandings that may arise along the way.⁴⁹ This quality separates the biologist from the biology teacher, and the writer from the English language arts teacher;⁵⁰ the understanding of what makes learning various topics within a discipline easy or difficult for an adolescent requires not only understanding the facts and concepts of that discipline but also knowing how to help students learn and understand that discipline.⁵¹ Therefore, it is critical that teacher candidates demonstrate that they have not only a deep knowledge of their subject area but also a strong understanding of the content-specific pedagogy.

Content-Specific Pedagogy—Stanford Teacher Education Program

The Stanford Teacher Education Program (STEP) has long recognized their teacher candidates need strong content *and* content-specific instructional skills. STEP candidates receive extensive content-specific preparation for teaching while examining the core concepts and modes of inquiry in the subject areas they will teach, evaluating student learning standards, evaluating and constructing curriculum, and learning specific strategies for teaching content. Subject-matter coursework, as well as other classes including child development and learning, curriculum and teaching of students with a wide range of needs, and culture and community is integrated with their year-long student teaching experience. The practices used by cooperating teachers in the partner schools reflect those taught in the content pedagogical courses to reinforce a common vision and a set of practices for equitable, effective teaching. The partnership schools, which serve racially and economically diverse communities, operate much like teaching hospitals do in medicine—as sites for demonstrating best practices, for educating beginning and veteran teachers, and for putting research into practice and practice into research.⁵²

Ninety percent of the principals who hire STEP teachers report that the program graduates are extremely well prepared for their first day in class; a similar percentage of STEP graduates report the same about their own feelings about their preparation. Additionally, STEP teachers tend to stay in teaching: the program touts a retention rate of more than 80 percent for teachers staying at least seven years. Additionally, STEP graduates have been found to be more effective in producing student achievement gains than other teachers with similar experience and student demographics.⁵³

The Need for Teacher Performance Assessments and Robust Data Systems

The importance of having the foundational elements in place to transform pre-service preparation cannot be overstated. Those elements include standards for teachers targeted to college-and career-ready instruction for all, a focus on teacher candidate performance rather than coursework, and a resolve that all teacher candidates be able to demonstrate key competencies. Also critical is reforming the systems used to measure teacher readiness for the classroom and the effectiveness of pre-service preparation options. New assessments focused on teacher performance need to be created so candidates can use results to improve their practice, and pre-service preparation models can use the outcomes to modify and enhance their programs more effectively.



Many state legislatures and state boards of education have already been using standardized tests of both teacher and student knowledge to assess the effectiveness of individual teachers and the teacher preparation programs, and as a gateway to grant teacher certification. While the intention was to use testing data to improve the quality of teacher education and gain a better understanding of teacher candidates' abilities, this has not always been the outcome. For example, when the federal government mandated the use of teacher assessments, it did not stipulate when the tests would be given nor what the cut scores would be—that is, how well a teacher candidate needed to do in order to pass. While there have been changes to legislation to correct some of these concerns, the tests and what is determined by the state to be the passing cutoff scores are still not consistent among states.⁵⁴ Moreover, these cut scores are often set very low, further impeding the tests' ability to help improve teacher education. Additionally, many standardized tests of teacher knowledge do not predict teachers' ability to deliver high-quality instruction that results in better achievement for students.⁵⁵

“We need to ... make use of new tools to assess progress and accomplishment, to accurately and credibly gauge the validity of approaches we believe are important in preparing teachers and assessing children.”

—Pat Wasley and Bill McDiarmid

P. Wasley and G. McDiarmid, “Connecting the Assessment of New Teachers to Student Learning and to Teacher Preparation,” paper prepared for the National Commission on Teaching and America's Future at the National Summit on High Quality Teacher Preparation, June 28–30, 2004, Austin, TX.

Assessing Teacher Performance

A national teacher performance assessment for emerging teachers is being developed in partnership by the American Association of Colleges of Teacher Education, the Council of Chief State School Officers, and Stanford University to inform and affect the reform of teacher preparation to increase teacher effectiveness. With the potential to be used in traditional as well as alternative pathways to teaching, this new assessment will provide an evidence base for making systematic decisions about recruitment, professional development, and continuation of employment. Thirty colleges of teacher education from fifteen states are participating in the development of the assessment, which is modeled after the Performance Assessment of California Teachers.

There are several pieces to the assessment—a teaching event, content-based assessments, and a portfolio—allowing evaluators to examine the ability of a teacher to work with children, with subject matter, and with varying developmental stages or abilities. Additionally, the assessment is applicable to all K–12 teachers and is aligned with the National Board Exam. Importantly, the assessment returns valuable information to the preparation programs, providing the opportunity to identify the strengths and weaknesses of their teacher candidates and identify needed program changes. The knowledge gained from these assessments will allow for more alignment and coherence between teacher preparation programs and school districts both within states as well as across state lines.

During the next three-year phase of the national teacher performance assessment project, the three partners will field-test the project's methodology and pilot its content-specific assessments—that is, assessments for teachers of elementary education, English language arts, math, science, social science, and special education. A reliable and valid nationally accessible teacher performance assessment will allow states to share a common framework for defining and measuring a set of core teaching skills that will establish a national standard for relevant and rigorous practice that advances student learning.⁵⁶

While assessments of teacher candidates' performance help ensure that educators are ready on their first day as the teacher of record, it is also critical to ascertain if teacher preparation options are successfully preparing teachers to be effective throughout their teaching career. Both policymakers and practitioners are clamoring for more information about the performance of preparation options in order to develop strategies for improving them.⁵⁷ Such analyses require robust data systems that can connect individual teacher data to individual student data and link that information to teacher preparation. In the last few years, significant progress has been made in the development of statewide longitudinal data systems that



track individual student information over time in some states. The Data Quality Campaign—a national coalition working to improve the use of education data to improve student achievement—has developed a nationally embraced list of ten essential elements of such systems.⁵⁸

While there have been calls from many, including the American Association of Colleges for Teacher Education, for systems that will link student achievement to individual teacher data, one of the ten key elements identified as essential by the DQC, only twenty-one states report that their current data systems have a teacher identifier system with the ability to match teachers to students,⁵⁹ and not all share the information with pre-service preparation programs. This is in large part due to concern about using student performance data to evaluate teachers and inform compensation, tenure, and hiring/firing decisions. In recent years, several states have even enacted laws banning the linkage of this information.⁶⁰

Despite the resistance, districts, states, and even the federal government are beginning to recognize the critical importance of having fair and accurate measures of teacher performance. For one, it can enable policymakers to discern the most effective types of teacher preparation, training, and certification and inform strategies to improve equity in teacher distribution.⁶¹ Around the country, district and state leaders have put in place systems that connect student performance to individual teachers as well as link it to their pre-service training. For example, Louisiana’s data system permits preparation programs to demonstrate their ability to produce new teachers, those with one to two years of experience, whose results in student achievement is comparable to those of experienced teachers, those with three or more years of experience.⁶²

The federal Statewide Longitudinal Data Systems grant has also invested significant funds in the development of statewide systems with the ten essential elements described by the Data Quality Campaign. Recent cycles of this program have focused on the ability of systems to link higher education data with K–12 data. Moreover, through the American Recovery and Reinvestment Act of 2009, the Obama administration has made clear its commitment to advancing states’ ability to link teacher and student information. To be eligible to apply for the American Recovery and Reinvestment Act’s Race to the Top competitive grant program, states must link student performance to teachers. This requirement has already begun to change the conversation: in several states, efforts are under way to overturn policies that have previously banned directly linking student and teacher information.⁶³

Federal Policy Implications

Historically, the federal government has taken on an extremely limited role with regard to pre-service teacher preparation. While there is a constant effort to improve and strengthen the Higher Education Act—the federal legislation that most directly affects teacher education—the provisions have focused primarily on the development of a few model programs and have been limited and weakly funded. In order to transform pre-service preparation, both traditional and alternative, to meet the needs of the twenty-first-century students, the federal government must take bolder action and truly invest in the training of teacher candidates. The emphasis should focus on ensuring that all secondary teacher candidates, no matter which route they pursue, are able to provide students with a college- and career-ready education from their first day in the classroom. This is a pivotal time, especially given the Obama administration’s commitment that “recruiting, preparing, and rewarding outstanding teachers” will be one of their top priorities,⁶⁴ and the broad opportunities for educational improvement provided by the stimulus funds. Additionally, with the reauthorization of the Elementary and Secondary Education Act on the horizon and conversations surfacing about more meaningfully including teachers in the



legislation, there is no better time for federal policy to focus on the preparation of highly effective teachers.⁶⁵ It can do so on five major fronts:

Focus on teacher performance instead of teacher education coursework. To best prepare students to compete in the workforce of the twenty-first century, the traditional practice of regulating the classes secondary teachers receive must be replaced with a focus on their ability to provide college- and career-ready instruction for all students. Currently there is no universal standard for a candidate's performance before becoming the teacher of record. Just as many states have recently recognized that students will benefit from a common set of standards, so too would teacher candidates benefit from a common set of performance standards, no matter their preparation pathway. The foundation is already being built by accrediting organizations as well as the National Board for Professional Teaching Standards in setting universal standards for master teachers.

With standards in place for what all teachers should know and be able to do, the federal government should then encourage states to closely evaluate and grant program approval to both traditional and alternative programs that ensure secondary candidates can provide their students a college- and career-ready education as well as provide funding to those models, traditional and alternative, that train teachers to be successful in the twenty-first-century classroom. Such a development would shift state program approval of all programs from inputs such as courses and competencies for teachers to the most meaningful output: the success of the teachers' students.

Encourage the creation of performance-based assessments. In order to measure fairly and accurately the effectiveness of individual candidates as well as their teacher preparation programs, the federal government should support the collaborative effort of groups to develop secondary teacher performance assessments that measure teaching skill aligned to college- and career-ready instruction. Congress should also provide incentives to states to incorporate these assessments into their licensing practices.⁶⁶

Increase the supply of high-quality teachers by supporting effective programs and closing ineffective programs. The federal government currently invests a total of \$50 million in teacher preparation through the Higher Education Act. This is not enough to serve as a catalyst for transformational change. To help increase the supply of effective teachers, the federal government should increase its investment in teacher preparation. Additionally, it should provide resources to existing teacher education programs that want to recruit and prepare more and higher-quality candidates. These high-quality teachers should finish their programs with the capacity to teach adolescent literacy skills, strengthen their students' abilities in their academic content area, teach diverse learners, use assessments and data to improve student achievement, and teach in the specific context of high-need urban and rural schools.

Moreover, the federal government should fuel the development of new and effective approaches to teacher education programs by also providing small grants to teacher preparation programs and even to individuals or small groups of faculty looking to design and employ innovative practices that will better prepare their candidates to meet high standards. At the same time, it is critical that the federal government encourage states to evaluate all routes to teacher certification in order to understand which programs are more and less effective. Subsequently, there needs to be a forceful, clear, and transparent process for states to close programs, traditional or alternative, found to be ineffective. One strategy would be to tie accreditation to evidence that programs can produce effective teachers. This evidence would come from teacher performance assessments and from data about graduates' preparedness, retention, and effectiveness.



Build and enhance robust data systems. Through the stimulus package, the Obama administration has made clear its commitment to focus on developing more robust data systems that allow for teacher and student information to be linked. This is an excellent first step. The federal government should continue to support statewide longitudinal data systems that require teacher performance data linked to and shared with teacher preparation programs. This data needs to be made accessible to preparation programs so they can track the effectiveness of their candidates and improve their pre-service preparation. States must be encouraged to partner with preparation programs in the development of such systems so their institutions of higher education can compare student performance, teaching practices, and preparation program characteristics.

Invest in research. The American Educational Research Association notes that “research on teacher education has made progress in terms of quantity and quality over the past 30 years, but more progress is imperative.”⁶⁷ Indeed, there are a number of issues related to teacher preparation that demand further exploration. As part of its research agenda, federal policy should dedicate funds to explore such issues as

- the relationship between the training and experiences teacher candidates receive, what instructional practices new teachers actually implement in the first years of teaching, and what the impact is on student learning;
- the specific impact of curricular innovations—new courses, modules, clinical experiences, etc.—on the effectiveness of novice teachers in subsequent years;
- how teachers learn to be effective in high-need situations, and what training and support they need before they enter the classroom in order to be highly effective;
- the direct impact of certain federal, state, and district policies on the quality of teacher preparation; and
- innovative organizations and programs that have been most effective at improving and sustaining the quality of teacher preparation.

Conclusion

In a rapidly changing world, education must keep pace. Today the global economy and technological innovation demand that all students are prepared for college and career success in order for the United States to remain a world-class economy. From the very first day new teachers walk into their classrooms, be it in high-performing or low-performing schools, in urban, rural, or suburban settings, they need to be ready to deliver high-quality education to every single student in the room. There are a few excellent programs that are already producing candidates ready to do just this, but as a nation we have a long way to go for this to be the norm rather than the exception. Until we transform teacher education, too many students will continue to receive a subpar education, with devastating personal and societal consequences. It is time for a dedicated investment at all levels to overhaul teacher education and put our country on the path toward a brighter future.

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The mission of the Alliance for Excellent Education is to promote high school transformation to make it possible for every child to graduate prepared for postsecondary learning and success in life.

The Alliance for Excellent Education is a national policy and advocacy organization, based in Washington, DC, working to improve national and federal policy so that all students can achieve at high academic levels and graduate high school ready for success in college, work, and citizenship in the twenty-first century.

The Alliance has developed a "Framework for Action to Improve Secondary Schools" that informs a set of federal policy recommendations based on the growing consensus of researchers, practitioners, and advocates about the challenges and solutions for improving secondary student learning.

The framework, shown graphically here, encompasses seven policy areas that represent key leverage points in ensuring a comprehensive, systematic approach to improving secondary education. The framework also captures three guiding principles that apply to all of the policy areas. Although the appropriate federal role varies from one issue area to another, they are all critically important to reducing dropouts and increasing college and career readiness.

