

## DEVELOPING QUALITY TEACHERS AND A QUALITY WORK FORCE

Another approach to understand teacher quality focuses on how schools and districts are organized to contribute to the growth and development of quality teachers and a quality workforce. Given that experience and developing pedagogical knowledge are strong indicators of teacher quality, it is important to pay attention to the places where individuals learn to teach, from pre-service to induction to continuing professional development.

Initial teacher preparation, whether in university-based or alternative preparation programs, is the first critical link in building a quality teacher workforce (NCTAF, 1996). The quality of teacher education programs and alternative teacher preparation have been the subject of debate and studies over many decades. Recent reports on teacher preparation programs that consistently produce quality teachers agree on several components of effective teacher education programs, including coherent and aligned coursework and consistent connections between theory and practice (Darling-Hammond, 2006; Levine, 2006).

Over the last ten years the number of pathways into teaching has increased dramatically. The research on the relationship between what pathway an individual takes into teaching and teacher effectiveness is just beginning to emerge. Louisiana, for example, instituted new accountability standards for teacher preparation in 2000-2003. Initial value-added modeling to analyze the effectiveness of these reforms is encouraging; however, it is still too early to tell whether the state-wide redesign efforts are positively impacting student learning (Noell, Porter, & Patt, 2007). Another state, further down the road in studying relationships between teacher pathways and student learning is the New York Pathways project<sup>8</sup>. A recent research brief (Boyd et al., 2007) suggests that the overall curriculum of teacher education is more similar than different. Subsequent research reports and findings from these projects bear further watch.

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The first three years in the teaching profession are equally crucial in building a quality teacher workforce. Recent research on teachers' working conditions outlines key features of the workplace that enhance teacher quality, retention, and effectiveness (Johnson, 2006). A fundamental assumption of Johnson's work is that teachers' characteristics and qualifications are not "fixed and static"...rather, they are malleable and dynamic within a rich, professional context that encourages learning and growth" (p.2). The workplace culture plays a key role in whether newly hired teachers stay for more than a year or two.

Research on employment patterns suggests that turnover and attrition rates have risen significantly since 2000 (Ingersoll, 2001; Johnson, 2006). High teacher turnover is most prevalent in schools serving children living in low income homes and communities, children of color, and English language learners or new arrivals. High turnover contributes to the "teacher gap" highlighted in the 2006 *Shining the Light* report.

A different approach to teacher quality, from an economic perspective, considers how salary and compensation practices affect teacher quality (Hanushek & Rivkin, 2007). In the remainder of this section, we discuss working conditions for novice teachers and compensation practices as they contribute to developing a quality teacher workforce.

<sup>8</sup><http://www.teacherpolicyresearch.org/TeacherPathwaysProject/tabid/81/Default.aspx>

## WORKING CONDITIONS FOR NOVICE TEACHERS

Teacher working conditions are also student learning conditions and they affect teacher retention (Center for Teaching Quality, 2007; Lankford et al., 2002). Johnson and colleagues studies (2004) of working conditions have identified a number of features that enable teachers, especially new teachers, to teach more effectively. These include appropriate and fair teaching assignments, induction and mentoring programs, continuing professional development, aligned curriculum, facilities and resources, and principals' leadership.

**TEACHING ASSIGNMENTS.** Appropriate teaching assignments contribute significantly to a teacher's ability to deliver quality instruction and to have a positive impact on student achievement. Included in the area of "appropriate" assignments is ensuring that teachers are assigned within their content area as well as having a manageable teaching work load. As districts have complied with NCLB's "highly qualified teacher" requirements, more teachers are teaching in their content area. Teaching load refers to the number of preparations (for secondary), non-instructional duties, and overall number of students served.

The nature of a teacher's load can affect teacher learning. For example, in secondary schools, while an average teaching load is five classes with two preparations (e.g., a math teacher might teach Algebra 1 and Geometry, each of which is a "preparation"), beginning teachers often have just as many classes with more preparations; this type of assignment presents much more work for a much less experienced teacher (Johnson, 2006). This situation takes time away from the teacher to focus on building her craft and can lead to the individual moving to another school or out of the profession entirely. Similarly, other non-instructional tasks and duties often take up time that is otherwise allotted for preparation or collaboration. As a result, teachers are left with little time outside of completing necessary tasks and teaching in the classroom to further develop their craft. In a study conducted over several school districts in five states, when asked to rate several factors according to the following statement, "In considering your future plans, please indicate the importance of the following in influencing your decision," 94% of teachers deemed "time to do my job during the day" important and 50% deemed it extremely important (surpassed only by support from administration, cost of living and salary) (Hirsch, Emerick, Church, & Fuller, 2006).

**INDUCTION.** Induction (i.e., new employee training) and mentoring programs "improve teaching quality, stem high rates of teacher attrition, and in doing so, decrease the overall costs of teacher recruitment and retention and increase student achievement" (Center for Teaching Quality, [www.teachingquality.org](http://www.teachingquality.org)). Effective induction programs are associated with reduced teacher attrition (Education Commission of the States [ECS], 2000; Molner-Kelley, 2004; Smith & Ingersoll, 2004). Studies performed by the Education Commission of the States show that induction and mentoring programs improve not only teacher retention but decrease teacher movement in and out of schools. In addition, they provide opportunities for continuing development and learning. Reducing teacher movement leads to greater stability among the staff and allows teachers to develop greater coherence in curriculum and teaching within a school.

However, these programs also require a commitment of resources, skilled and well-trained mentor teachers and allotted time for the programs in order to be most effective (ECS, 2000). In a recently published cost-benefit analysis of a comprehensive mentoring program for beginning teachers in a medium-sized district in California (Villar & Strong, 2007), the researchers found that mentoring results in greater savings to the district than costs incurred from teacher attrition (e.g., hiring and training a replacement teacher). Some features of high quality mentoring and induction practices include rigorous mentor selection based on qualities of an effective mentor, ongoing professional development and support for mentors, multi-year mentoring, intensive and specific guidance moving teaching practice

forward, professional teaching standards and data-driven conversations, ongoing beginning teacher professional development, clear roles and responsibilities for administrators, and collaboration with all stakeholders (New Teacher Center, 2007).

## Colorado Watch

### Promising Practices

The URBAN TEACHER PARTNERSHIP (UTP) program at Metropolitan State College of Denver is a partnership between Metro State and Denver Public Schools designed to expand the pipeline of high-quality middle and high school teachers in four content areas: math, science, English and social studies. One of the unique features of this partnership is that participants conduct all of their field experience in a designated “Urban Apprentice School,” one of eight identified DPS secondary schools. At that specialized site, UTP participants have access to first-rate mentors, district and school-based professional development opportunities, interview preparation support, and specialized induction support through the first three years of teaching.

[www.mscd.edu/~tqe/index.shtml](http://www.mscd.edu/~tqe/index.shtml)

The PARTNERS IN EDUCATION (PIE) program is a collaborative induction and graduate studies venture between partner school districts and the School of Education at the University of Colorado-Boulder. With broad partnership goals to share responsibilities and exchange ideas and resources, the program aims to provide targeted, classroom-based support within a context of graduate studies for novice teachers, share responsibility for retention and best practice of teachers, support the professional development of teacher leaders at local school districts and provide a mechanism to connect theory and practice.

<http://www.colorado.edu/education/prospective/pie.html>

**CONTINUING PROFESSIONAL DEVELOPMENT.** Though much of the teacher quality discussion focuses on hiring and retaining high quality new teachers, in Colorado 67% of classroom teachers have at least four years teaching experience and qualify as “veteran teachers” (Strizek, Pittsonberger, Riordan, Lyter & Orlofsky, 2006). Continued professional development complements mentoring and induction programs. As in any profession, teachers must have opportunities to continue to build upon and improve their craft. However, teachers describe many professional development opportunities as being piecemeal, isolated, and disconnected from their practice (Hill, 2007; Hirsch et al., 2006; McLaughlin & Talbert, 2006). Current best practices in professional development emphasize job-embedded learning communities, as these have been shown to offer meaningful and coherent opportunities. These opportunities help teachers to develop a network within which each individual contributes to and benefits from a collective pool of knowledge, skills and expertise (McLaughlin & Talbert, 2006). Networks contribute to stability and cohesion within a building staff. For further discussion on the impact of high quality professional development on student achievement, see the previous section, *Knowing How to Teach: Pedagogical Knowledge (Professional Development)*.

**ALIGNED CURRICULUM.** All teachers, especially new ones, need curriculum materials that are aligned with state standards and assessments. Aligned curriculum provides teachers with a continuous and consistent path in their teaching, thereby enabling them to focus on the craft of teaching (Johnson, 2006). Several studies report that while teachers support high standards, they often do not have access to or are not provided with such curricula (Johnson, 2006). Similarly, one study describes how curricular frameworks can be so general as to work against effective teaching and learning (Grossman & Thompson, 2004); general standards work against effective student learning and against adequate scaffolding of teacher knowledge.

Highly scripted curriculum is not a solution to this problem. Teachers, particularly in low-income schools, are more likely to be asked to implement prescriptive curricula. Kauffman and colleagues (2002) noted that “in calling for greater specification, these new teachers stopped well short of asking that their every move be dictated” (p. 25). Further, it is important to recognize the job embedded professional development that many aligned curricula bring with them. Along with the benefits brought about by the curriculum itself, this professional development augments its positive effect.

## Colorado Watch

### Promising Practices

University of Colorado Denver's PARTNER SCHOOLS is a School-University Collaboration where university faculty, teachers and administrators work together in partner schools to improve the education of P-12 students and to improve the preparation of new teachers for the profession. Partner schools are designed to support simultaneous renewal - improvements in teacher education that lead to improvement in school operations and student learning, which in turn leads to improvement in teacher education and so on. First established in 1992, there are currently 28 partner schools across six school districts in the Denver Metropolitan area.

<http://thunder1.cudenver.edu/ipte/ogreen/Partner%20Schools.htm>

The BOETTCHER TEACHERS PROGRAM is a field-based approach to preparing new teachers to thrive in urban schools. Through the Boettcher Teachers Program, new teachers who commit to five years teacher in urban schools are provided fellowships to acquire skills that enable them to be successful with students who have been historically underserved. This program is a collaboration among the Boettcher Foundation, Public Education and Business Coalition, University of Denver Morgridge College of Education and the Mapleton and Adams 12 Five Star school districts.

[www.boettcherteachers.org](http://www.boettcherteachers.org)

**FACILITIES AND RESOURCES.** In order to perform, teachers must have the tools to do the job. Yet, many classrooms lack even basic materials such as current textbooks and general teaching supplies (Johnson, 2006). Further, there is often a discrepancy between the availability of resources to teachers in low- and high-need classrooms. One study suggests that this discrepancy creates a type of teacher tracking, fostering teacher performance in low-need schools while hindering that performance and development in high-need areas (Achtinstein et al., 2004).

Adequate facilities are a particular challenge in rural Colorado where communities lack the ability to pay for new buildings (Donnell-Kay Foundation, 2005). It is important to enable teachers to perform at high levels by making available the resources to do so. Attending to resources is also a way of retaining teachers.

**PRINCIPAL'S LEADERSHIP.** School leadership serves a vital role in fostering and retaining quality teachers. Research shows that leadership in schools has an impact on the overall school culture as well as on teachers' job satisfaction (Hirsch et al., 2006, p. 23). As a result, it is important to hire and retain school leaders who will create a positive working environment and who distribute leadership among teachers within a building, thereby harnessing teachers' expertise to improve student learning. Teachers' knowledge can be put to use as curriculum developers, mentors, or department or grade-level team leaders.

**COLORADO POLICIES THAT SUPPORT QUALITY TEACHER WORKING CONDITIONS.** Overall, Colorado lacks coherent policy regarding the quality of teacher working conditions. State regulations for teacher licensure require teachers holding an initial teaching license to complete an approved induction program before being eligible for a professional license. The quality of these programs varies tremendously. State regulation also requires that teachers earn recertification credit, often through district-sponsored professional development. Again, the quality of professional development varies. Responsibility for curriculum typically resides at the district, and again the quality of curricular frameworks and adopted materials varies significantly. Responsibility for teaching assignments and facilities and resources typically lies at the building level, but is heavily influenced by district hiring policies and the district's bargaining agreements with its association of teachers. Finally, the district bears responsibility for the quality of principals' leadership.

## COMPENSATION PRACTICES

Currently, many districts follow the traditional model of teacher pay increase, which works as a stepwise process; a teacher is paid according to her level of education and years of service. Some authors conclude that this pay scale has served as a disincentive for some applicants, turning them to other higher-paying professions (Usdan et al, 2001). However, several alternative pay schedules have been instituted (such as Douglas County's system<sup>9</sup>, ProComp in Denver<sup>10</sup>, and Teacher Advancement Program [TAP] in Eagle County<sup>11</sup>) that are similar to other professions where employees receive compensation and bonuses for performance on the job. This system more directly rewards effective teaching through increased salary.<sup>12</sup>

In a study conducted for the Center for American Progress, Goldhaber (2006) suggests several reasons for a more performance-based pay schedule for teachers. First, teaching positions vary greatly according to workload and tasks and teachers should be compensated appropriately; second, teachers respond to monetary incentives; and, finally, research on alternative pay schedules "suggests that teacher pay reform can be an effective way to achieve policy objectives." It appears, though, that teachers who move from one school to another, particularly in the early years of their career, are motivated more by working conditions and the opportunity to work with higher-achieving students than by salary (Hanushek & Rivkin, 2007). However, research on Douglas County has suggested their compensation system has increased teacher retention (Reichardt & Van Buhler, 2003).

<sup>9</sup>For more information about the Douglas County Pay for Performance system :

[http://www.dcsdk12.org/portal/page/portal/DCSD/Human\\_Resources/Certified\\_Staff/Pay\\_for\\_Performance](http://www.dcsdk12.org/portal/page/portal/DCSD/Human_Resources/Certified_Staff/Pay_for_Performance)

<sup>10</sup><http://denverprocomp.org/>

<sup>11</sup>For more information about the TAP program in Eagle County: <http://eagleschools.net/aboutus/tap/>

<sup>12</sup>In Colorado, there are also 16 districts that provide stipends to teachers earning National Board Certification. They range from a percentage of a base salary to a flat amount usually between \$500 and \$5,000 per year. Colorado currently provides \$1000 of the \$2,500 fee to take the test for National Board Certification. An addition \$1,000 is provided through Federal funds.