Creating Sustainable Teacher Career Pathways:

A 21st Century Imperative

A report produced by the **National Network of State Teachers of the Year (NNSTOY)** and the **Center for Educator Learning & Effectiveness** at **Pearson**

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Introduction

"If I do this for ten years, I will be bonkers … give me something different, either that or administration" – Keisha, a first career teacher (Johnson et al., 2004)

This statement summarizes one of the greatest challenges to staffing the nation's classrooms with the most motivated, highly qualified teachers—namely, making teaching an attractive profession with career opportunities for those who seek those challenges. Keisha's perspective was shared by the majority of teachers entering teaching as a first career as well as mid-career teachers recruited through the Massachusetts Signing Bonus Program in 1999—a fast-track alternative teacher preparation program with a $20,000 signing bonus designed to attract strong teachers into the state's public schools. Although the program fulfilled its goal of recruiting academic high achievers, the program was not a success—44 percent of the bonus teachers had left within three years, often citing lack of support, poor working conditions, a pay structure that did not acknowledge the quality of their work, and low status. The program was suspended in 2003 (Fowler, 2008). A decade later, a study of 90,000 teachers in four large, geographically diverse urban school districts identified that 20 percent of teachers "who are so successful that they are nearly impossible to replace" leave their schools as a result of "neglect and inattention" (TNTP, 2012). Termed "Irreplaceables," these teachers provide more engaging learning experiences for students and help them to achieve, on average, an additional five to six months of learning each year compared to low-performing teachers. The proposed solution in The New Teacher Project (TNTP) report? Pay Irreplaceables what they are worth and create career paths that extend their reach.

Jal Mehta of the Harvard Business School recently described teaching as a "failed profession." He comments that America's overall performance in K-12 education remains stubbornly mediocre, and much of what happens in classrooms and how schools are organized has not changed since the Progressive Era. "On the whole, we have the same teachers, in the same roles, with the same level of knowledge …" Mehta (2013) calls for developing a career arc for teaching and a differentiated salary to match it, as well as developing a professional model similar to those of medicine, law, engineering, accounting, architecture, and many other fields. This is hardly a new idea, but one felt with a renewed sense of urgency given the imperative to close significant achievement gaps by student race and socioeconomic status in the United States and preparing workers to compete in an economy increasingly driven by "knowledge workers."[2]

*20 percent of teachers "**who are so successful that they are nearly impossible to replace**" leave their schools as a result of "neglect and inattention" (TNTP, 2012).*

This report begins by suggesting how the teaching profession needs to evolve to meet 21st century career expectations for a new generation of teachers and learners. We examine what lessons the teaching profession can learn from other licensed professions, from the education systems of other countries, and from the business world. We describe past attempts to recognize the stages of a teacher's career and to promote differentiated roles for teachers that acknowledge specialized skill and knowledge.

[2]Defined as individuals whose primary responsibilities are the acquisition, transformation, and dissemination of information (Drucker, 2001; Reich, 1991)

We offer a new vision of teacher career pathways for the 21st century that holds promise for recruiting and retaining excellent teachers who further student learning. We showcase recent initiatives at the local, state, and national level that promote teacher role differentiation and create different models of teacher staffing and teacher career continuums. The culmination of our report includes recommendations related to creating the conditions necessary to develop sustainable teacher career pathways and potentially to make teaching a more attractive career option for a generation that expects flexibility in the workplace, collaborative work structures, differentiated roles, and compensation systems that recognize performance, and differing levels of responsibility.

Methodology of Study

Our work began with a review of the literature on past and present initiatives to promote teacher leadership, differentiated staffing in schools, and career ladders or teacher career pathways. This included examining how other licensed professions advance the careers of their members and what recent trends can be seen in business. We also examined features of the teaching profession in countries whose students perform at high levels from sources such as the Asia Society, Center on International Benchmarking, McKinsey and Company, and Organization of Economic Cooperation and Development (OECD).

We reviewed recent policy documents addressing strategies to attract and retain highly effective teachers from organizations such as the Alliance for Excellent Education, American Federation of Teachers, National Commission on Teaching and America's Future, National Comprehensive Center for Teacher Quality,[3] National Council on Teaching Quality, National Education Association, Public Impact, and Public Agenda.

Our review also included web-searches to identify state-level strategies to promote teachers in leadership roles. These were followed by interviews[4] of representatives of all 50 state education agencies and/or state professional standards boards to discuss in more detail their states' current and proposed initiatives related to teacher career advancement. In addition, we conducted interviews with representatives of the DC Public Schools, National Institute for Excellence in Teaching (NIET), and Public Impact to help inform the recommendations contained in this report.

We offer a new vision of teacher career pathways for the 21st century that ***holds promise for recruiting and retaining excellent teachers*** *who further student learning. We showcase recent initiatives at the local, state, and national level that promote teacher role differentiation and create different models of teacher staffing and teacher career continuums.*

[3]Now called the Center on Great Teachers and Leaders

[4]In several states, responses to our questions were answered via e-mail instead of telephone interview.

PART I. Bringing the Teaching Profession into the 21st Century

Teaching has historically been described as an "unstaged occupation," with few opportunities to access higher earning and higher status positions as one would experience in other "staged professions." In addition, in most states, upward movement within the salary scale is determined by number of years served rather than actual performance, although—as noted in Section V of this report—this is beginning to change. Within the profession, income increments are modest and there are few status differences among practitioners. Yet the opportunity for significant upward movement is, in essence, the definition of a career. Attorneys can be appointed partners; academics can gain rank and promotion; crafts move through stages of apprenticeship, journeyman, and master craftsman; and business and governmental organizations provide hierarchies of power and privilege (Lortie, 1975). Although much has been written about the stages in the professional life of teachers (Huberman, 1993; Steffy et al., 2000), the "career path" of a teacher is generally flat or narrowly linear. The main opportunity for career advancement for teachers has been—and remains today—leaving the classroom to become a school administrator. "Mid-career" teachers often experience burnout, stress, and dissatisfaction. Maintaining a generic, static career structure holds little promise of attracting or retaining enough good teachers (Peske et al., 2001; Hess, 2009).

*The main opportunity for career advancement for teachers has been—and remains today—**leaving the classroom to become a school administrator.***

Turnover and attrition are extremely costly to the profession of teaching both in terms of the human and financial costs, and are expected to grow worse (Alliance for Excellent Education, 2005; Barnes, Crowe & Shafer, 2007). The teacher labor market in this country has been characterized as a "leaky bucket" (National Commission on Teaching and America's Future, 2007) or a "revolving door" (Ingersoll, 2001; Darling-Hammond & Sykes, 2003) with more teachers lost to attrition than recruited. Beginning teacher attrition has increased by more than 40 percent during the last 16 years for which data are available (Caroll & Foster, 2010). This has occurred at the same time that the country has been trying to expand the pool of potential teachers by creating alternative pathways into the profession. This policy remedy has neither stabilized the teaching force nor increased teaching quality in high-needs schools (as noted in the beginning of this report, the Massachusetts Signing Bonus Program was a particularly "leaky bucket"). Research shows that teachers improve their proficiency and effectiveness the most during the first seven years of teaching, and the failure to provide comprehensive, high quality induction programs is costly in terms of lost human capital and diminished teacher effectiveness in the early career stages (Caroll & Foster, 2010).

Losing as well as underutilizing the talents of experienced teachers is also problematic in terms of lost expertise. Although total years of experience is not directly correlated with an increase in student achievement, Huang and Moon (2009) found that additional years of teaching experience at the same grade level was associated with student learning gains. The National Board for Professional Teaching Standards (NBPTS) cites that those teachers who pursue rigorous additional certification through the

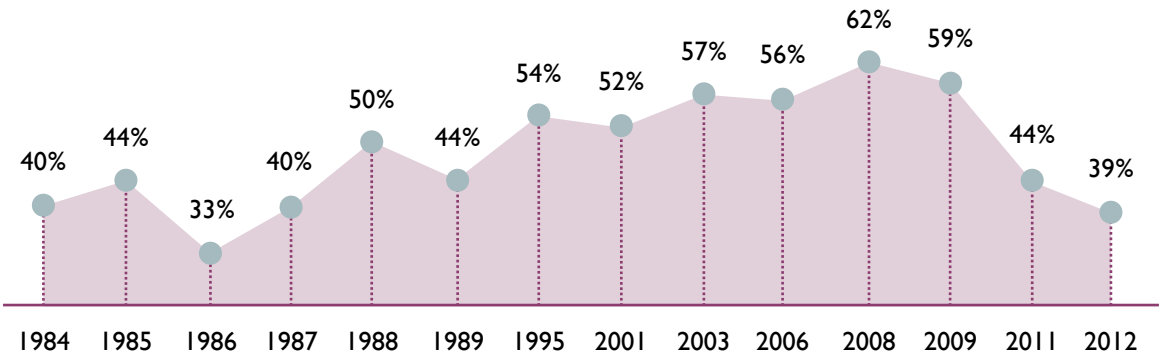
NBPTS continue to gain in proficiency and effectiveness after an average of 11 years of teaching (Caroll & Foster, 2010). There are also data that show that this subset of our most motivated teachers seek professional challenges throughout their careers, as nearly 50 percent of National Board Certified Teachers (NBCTs) serve in high-need districts.[5] Nonetheless, there is little data on the numbers of NBPTS teachers who take on leadership roles in their schools and whether they must leave the classroom in order to move into such roles. Wise (2012) comments that "most report that they are, in essence, all dressed up with no place to go." Research on the expectations of Generation Y[6] teachers indicates that we will lose these teachers in even greater numbers than previous generations if we do not offer more opportunities for advancement (Coggshall et al., 2011).

A recent MetLife survey has uncovered some disturbing trends related to teacher career satisfaction. Teacher job satisfaction has dropped 15 points in a two year period, from 59 percent in 2009 who were very satisfied to 44 percent in 2011—the lowest level in over 20 years. The percentage of teachers who indicate that they are very or fairly likely to leave the profession has increased by 12 points over the same period, from 17 percent to 29 percent. Further, the percentage of teachers who do not feel their job is secure has grown to 34 percent compared to eight percent in 2006. This does not bode well for teacher retention. On the other hand, whereas only 16 percent of teachers were interested in becoming a principal, twice as many were likely to be at least somewhat interested in a teacher leadership role. A "hybrid teaching role" which keeps teachers part-time in the classroom combined with other roles of service and leadership in education was particularly attractive to mid-career teachers, high school teachers, and those in urban schools or schools with high proportions of low-income students (MetLife, 2012).

[5] http://www.nbpts.org/nbpts-2013-01-08-nbct-student-achievement

[6] In this paper, we refer to Gen X as those individuals born in the early 1960s to late 1970s; Gen Y refers to those born between 1977 and 1995.

FIGURE 1. Teacher Job Satisfaction Through the Years (% Very Satisfied)



Sources:
MetLife, 2012

Unlike other professions, the average retirement age for teachers is 59, and school districts frequently offer early retirement incentives as a means to reduce personnel costs. Encouraging seasoned veterans to retire early not only strains state pension systems, but also leads to a loss of expertise that often is very much needed. It is also out of sync with what a majority of baby boomers state as their desire to work after they "retire," As noted by Caroll and Foster (2010):

> Eliminating barriers to returning to work after retirement would enable principals and districts to regain or rehire experienced master or other highly qualified teachers to build a balanced team of veteran and newer teachers—creating new roles for accomplished veteran teachers who could coach and mentor novice teachers (p. 18).

Largely due to anticipated teacher retirements, Generation Y public school teachers are projected to make up nearly half of the educator workforce by 2020. Gen Y is characterized as being committed to high levels of achievement, to changing the world for the better, and to communicating and presenting in styles that are engaging and innovative. Behrstock and Clifford (2009) therefore conclude that Gen Y teachers will likely be strong educators. The Retaining Teacher Talent Study conducted in 2009 by Public Agenda and Learning Point Associates (now merged with the American Institutes of Research) produced some important findings suggesting that this incoming generation of teachers has somewhat different expectations than older teachers.

Specifically, Generation Y teachers:

- Are open to rewarding teachers for outstanding performance and increased responsibilities, provided the system is fair and valid and salaries are raised across the board;
- View meaningful learning opportunities, opportunities for collaboration, reduced class size, increased parental involvement as more important than salary, all factors being equal;

- Want fair, rigorous, and meaningful evaluation systems, and believe the removal of ineffective teachers from the classroom can boost teacher effectiveness, although tenure protections are still important;
- Seek sustained, constructive, and individualized feedback on their effectiveness from principals; and
- Plan to stay in the education field for life, but only 56 percent expect to remain in the classroom full-time. They cite the need for new challenges and opportunities to avoid burn-out or boredom (Coggshall et al., 2009; Coggshall et al., 2011).

A survey of over one-thousand K-12 public school teachers by Education Sector and the FDR Group indicated that attitudes about differentiated pay, conditions and flexibility of their work are shared by more than just Gen Y members. Eighty-five percent of teachers felt that more time during the school day for class preparation and planning would help attract and retain high quality teachers. Seventy-eight percent thought it a good to excellent idea to make it easier for teachers to leave and then return to teaching without losing retirement benefits. Seventy percent supported the idea of making it easier to earn and take sabbatical leave for teachers working in challenging schools (Duffett, et al., 2008).

It is clear that, without structural changes to the teaching profession—including better working conditions, competitive compensation, flexibility, and career staging—it will be increasingly difficult to attract and retain enough highly motivated and qualified teachers into the profession. Currently, only nine percent of students in the "top third+" of their academic cohort express interest in going into teaching (Auguste et al., 2010). Building additional career stages that value and reward high performing teachers may be one way to motivate promising newcomers to the profession to set longer-term goals that involve leading from the classroom (Coggins, et al, 2010). Koppich and Kerchner (1999) suggest an even more radical approach: rearranging the teacher labor market and developing a career ladder with teaching at the top. The roles and responsibilities of those who are currently lead teachers would become the normal responsibilities of senior teachers. Classroom teachers would routinely work collaboratively with other adults. Hassel and Hassel (2009) assert that excellent teachers can advance by "extending their reach" to more students for more pay, within budget. They explain that job redesign and age-appropriate technology allow schools to free teachers' time to reach far more students with their personalized instruction, lead and develop other teachers, and collaborate in teams.

*Currently, only **9 percent of students** in the "top third+" of their academic cohort **express interest in going into teaching** (Auguste et al., 2010).*

Creating new teacher career structures that promote high levels of teacher collaboration and strong professional communities is critical as we seek to address the challenges of educating all students at high levels to meet the needs of an increasingly globalized economy. We have entered what some visionaries term the "conceptual age" (Pink, 2005) and the era of the "symbolic analyst" (Reich, 1991). We need people who have expertise beyond manipulating information and data, but who can also think creatively and conceptually, recognize patterns and make meaning as well as interact with symbols like data, words, and visual representations. In that new world, employers will value the ability to collaborate, think critically and creatively, and work in teams. We need teachers who are empowered to develop creative solutions with their colleagues and who will work together to problem solve, make meaning from a wide array of student learning data, and develop

creative solutions to address our most critical educational challenges. Recent research provides growing evidence that teacher collaboration improves the effectiveness of teachers—especially of inexperienced teachers, but also their peers—and positively affects student learning (Goddard et al., 2007; Gallimore et al., 2009; Jackson & Bruegmann, 2009). Research also suggests that teacher collaboration cultivates distributed leadership for teachers, which enhances job satisfaction and teacher retention (Abbott & McKnight, 2010). Collective or distributed leadership, which includes teachers with designated leadership roles, has been shown to have a stronger influence on student achievement than individual leadership (Seashore Louis et al., 2010). The evidence is clear: we need a holistic system of educator talent management that recognizes that teachers are an essential factor in student learning, particularly when provided opportunities for professional collaboration and leadership and when supported by their school leaders.

Another approach to expand teachers' reach is through the increased use of technology in K-12 education. Hess (2009b) observes that the "people-everywhere" strategy is expensive and limits the available pool of talented educators who are not willing to relocate to communities where they are needed. Educational technology can help eliminate barriers posed by geography. Hassel and Hassel (2009; 2011; 2012) suggest that, through "blended learning models," teachers with high levels of expertise can reach more students through digital instruction with face-to-face teaching targeted for higher-order learning and personalized follow-up. They posit that when students spend as little as an hour daily using digital instruction, schools can change schedules to allow teachers to reach more students without increasing class sizes, and teachers can gain school-hour time to plan and collaborate.

Highly effective teachers can serve in "hybrid" roles. By providing expert teachers with release time or assigning them part-time to classroom teaching, they can model lessons, observe peers and give comprehensive feedback on their instruction, mentor novice teachers, as well as organize and conduct action research on what instructional strategies produce higher levels of learning.

Another set of options lets teachers reduce their teaching loads to add other leadership responsibilities. Berry et al. (2011) suggest that highly effective teachers can serve in "hybrid" roles. By providing expert teachers with release time or assigning them part-time to classroom teaching, they can model lessons, observe peers and give comprehensive feedback on their instruction, mentor novice teachers, as well as organize and conduct action research on what instructional strategies produce higher levels of learning. As we discuss later in more detail, differentiated staffing within classrooms can provide opportunities for teachers with varying levels of experience to work together in "one classroom" with up to one hundred students and help end the "tyranny of the self-contained classroom" (Wise, 2012).

There have been many noteworthy efforts to create teacher leadership opportunities and to investigate more comprehensive teacher career continuum initiatives. But many have fallen short due to the fact that they have challenged long-established norms of the teaching profession and the traditionally hierarchical structures of U.S. public schools. Frequently, these efforts have only addressed pieces of the structural changes that need to be addressed, rather than addressing the comprehensive, systemic issues needed to create a true teaching profession. Despite these problems, there are hopeful, emerging models that

challenge historical norms of the teaching profession. Many of these will be examined in the subsequent sections of this report, with the ultimate goal of presenting recommendations that "put the pieces together" into what we need to do to re-position the teaching profession to effectively meet and exceed the challenges of transforming schools for the needs of the 21st century.

PART II. Enhancing Teaching as a Profession: Lessons from Other Licensed Professions, the Education Systems of Other Countries, and the Business World

Other licensed professions, business, and the education systems of countries with high-performing education systems can inform us about successful strategies that provide incentives and career options to attract and retain the most qualified entrants to the profession as well as manage talent as part of a comprehensive human capital system. In order for that to happen, however, teaching must be elevated as a profession.

Renewed Calls for "Professionalizing" the Teaching Profession

The American Federation of Teachers (AFT) recently released a report calling for the equivalent of a "bar exam" for teachers: "An entry bar for the profession must include rigorous preparation centered on clinical practice as well as theory, an in-depth examination of subject and pedagogical knowledge, and a demonstration of teaching ability through performance assessment" (AFT, 2012). The report recommends that the oversight for such an initiative should reside with National Board for Professional Teaching Standards (NBPTS), the organization that has set standards for accomplished educators through a voluntary certification process. The report also calls for opportunities for differentiated roles and responsibilities that link student and school-system needs with educators' personal and professional goals. Locally designed and negotiated "career ladders" are deemed as contributing to improved teacher retention, performance and morale. The National Education Association (NEA) has also recently called for a professional career continuum. Newcomers to the profession will be "novice teachers" with mentors and time to collaborate with experienced colleagues. Professional teachers will earn more and work more hours because they have demonstrated effectiveness. Master teachers will work as both classroom teachers and as mentors, peer reviewers, and teacher leaders (NEA, 2011).

Locally designed and negotiated "career ladders" are deemed as ***contributing to improved teacher retention, performance and morale.***

The idea of modeling a professional licensing system for teachers after other professions is not new. Wise et al. (1987) recommended a three-stage process: entrance licensure, internship, and continuing licensure—a system modeled after the professions of medicine, law, architecture, and engineering. That same year (1987), NBPTS was established to create professional standards and a voluntary system to certify teachers who meet those standards. As of 2012, there are over 100,000 National Board Certified Teachers (NBCTs),[7] representing just three percent of the U.S. K-12 teaching profession. In recognition that new entrants to

[7] http://www.nbpts.org/advancing-profession

a profession need to demonstrate professional knowledge and competency, Georgia, Florida, and Texas in the early 1980s implemented classroom-based observation assessment systems for beginning teachers (Porter et al., 2001; Fisk, 1999). In the late 1980s, Connecticut built upon these early assessment tools to develop a more sophisticated measure of teaching performance, first using a more holistic classroom observation system and subsequently a content-specific portfolio assessment system, successful completion of which was required for continued licensure beyond the induction phase (Wilson et al., 2001). However, litigation (in the case of Georgia) or funding cuts/legislative changes (Connecticut) spelled the demise of these state-based licensure assessments, with Washington the only state that now requires that early-stage teachers successfully complete a state-administered performance assessment[8] following the "internship" stage of their careers. Over the last several decades, many states have established task forces or committees to develop tiered licensing systems (with some linked to performance standards), but the trend too often is that these efforts remain in the minds of policymakers and are either not implemented, inadequately funded, or subsequently abandoned due to political or fiscal pressures. Other states have implemented tiered licensing systems that are largely symbolic and do little to either measure or acknowledge teacher expertise or promote differentiated roles or responsibilities.

More recently, however, interest has re-surfaced in raising the standards for entrance into the teaching profession. The edTPA,[9] a partnership of Stanford University and the American Association of Colleges for Teacher Education (AACTE) is creating a multiple-measure assessment system for prospective teachers aligned to state and national standards of practice. The assessment process is currently being field-tested in 21 states, and it is expected that the edTPA will become available for use nationally in the 2013-14 school year. Currently 24 states are part of the Teacher Performance Assessment Consortium (TPAC) and have either formally adopted the edTPA or indicated their interest.[10]

Over the last several decades, many states have established task forces or committees ***to develop tiered licensing systems*** *(with some linked to performance standards).*

There remain significant differences between the licensing practices and policies of teaching and other professions. Educator licensing is, generally, in the hands of state education agencies or state educator professional standards boards, and standards differ widely from state-to-state. Academic requirements and residence/practicum requirements differ from institution to institution as well as state-to-sate, and most states have alternative route to certification programs that often ease requirements even further.[11] NBPTS certification remains voluntary and, although one of the strategic priorities of the National Board is to promote educator career continuums, teaching still lacks many opportunities for "career staging" (that is, the opportunity to advance within the profession based on the acquisition of additional expertise or training) as we find in nursing, architecture, accounting, and civil engineering. These are careers with relatively comparable educational requirements and average salaries as teachers (see Figure 2). In each of these licensed professions, candidates must demonstrate minimal levels of knowledge through a professional licensing examination as well as undergo a sustained period of clinical supervision or internship. Some must

[8] http://www.waproteach.com

[9] The edTPA was formally known as the Teacher Performance Assessment. Pearson is an operational partner to help deliver the test to the intended audience.

[10] http://edtpa.aacte.org/about-edtpa

[11] As noted above, the edTPA Project is designed to raise standards for teacher preparation and introduce some consistency across institutions of higher education.

complete this supervised internship prior to being eligible to sit for the licensing examination (e.g., architects and certified public accountants). All of these professions provide for differentiated career paths, some of which require continuing education and/or degrees. In addition, most other professions differentiate between highly skilled, licensed professional roles and other less skilled paraprofessional or technical positions (e.g., nurses aides, paralegals). These allow for different compensation schedules and roles that support higher pay for higher levels of expertise and knowledge.

The teaching profession in some instances offers different licensing designations such as "master teacher" endorsements or credentials to NBPTS-certified teachers. However, the attainment of such endorsements does not necessarily lead to differentiated responsibilities or roles in the classroom or school, or to higher compensation. This is not necessarily the case in other countries in which there are clearly defined teacher career tracks or where teaching is a high status profession, which we discuss in the next section.

FIGURE 2. Licensing Requirements and Career-Staging in Select Licensed Professions[12]

PUBLIC K-12 TEACHING

No. of professionals in the U.S. as of 2010: 2,615,000
Median salary: $51,380 (elementary); $55,050 (secondary)

Routes into the profession: teacher preparation programs at the undergraduate and graduate level; alternate routes to certification (e.g., Troops to Teachers, Teach for America)

Licensing requirements: varies from state-to-state in terms of academic coursework and internships/practicum; passing of basic skills and content area tests; professional knowledge tests required only in a few states. License renewal generally tied to accumulation of additional continuing education units.

Career paths: few formalized career paths for classroom teachers; generally, career advancement involves becoming a school administrator or attaining a specialist designation through additional coursework/endorsements. Master teacher or teacher leader certification endorsements available in some states, but do not necessarily lead to differential roles or compensation.

NURSING

No. of professionals in the U.S. as of 2010: 2,737,000
Median salary: $64,690

Routes into the profession: diploma programs administered in a hospital and associates degrees through a community college provide routes to a LPN and RN degree, BA degree program at a college or university prepare RNs.

Licensing requirements: National Licensing Examination for RNs (NCLEX_RN©) measuring minimal competency for entry-level nursing practice.

Career paths (once the RN degree is attained): graduate degree programs for nurse practitioners, clinical nurse specialists, nurse anesthetists, nurse midwives, researchers, faculty, and nursing administrators; doctoral programs leading to Doctor of Nursing Practice degrees.

ARCHITECTURE

No. of professionals in the U.S. as of 2010: 113,700
Median salary: $72,550

Routes into the profession: degree from an architecture program accredited by the National Architectural Accrediting Board (NAAB); completion of Intern Development Program—a comprehensive training program lasting from 3-5 years

Licensing requirements: Architect Registration Examination; continuing education to maintain license.

Career paths: architect in a firm or an architect specializing in building design, interior architecture, or construction technology; partner in an architectural firm; teaching.

[12]For comparison purposes, there are 3.3 million K-12 public school teachers as of 2010 and the median salary is between $51,380 and $53,230 (depending upon school level)

CERTIFIED PUBLIC ACCOUNTANT

No. of professionals in the U.S. as of 2010: 1,216,900
Median salary: $61,690

Routes into the profession: Bachelor's degree; 40 states require pre-licensure education consisting of 150 semester hours of education in the field of accounting

Licensing requirements: Two years of public accounting experience before sitting for exam. Successful completion of state CPA examination.

Career paths: working in a small to large international CPA firm and working in audit, tax management consulting; careers in financial accounting and reporting, financial analysis and treasure/cash management; opportunities in government and the non-profit sector.

CIVIL ENGINEER

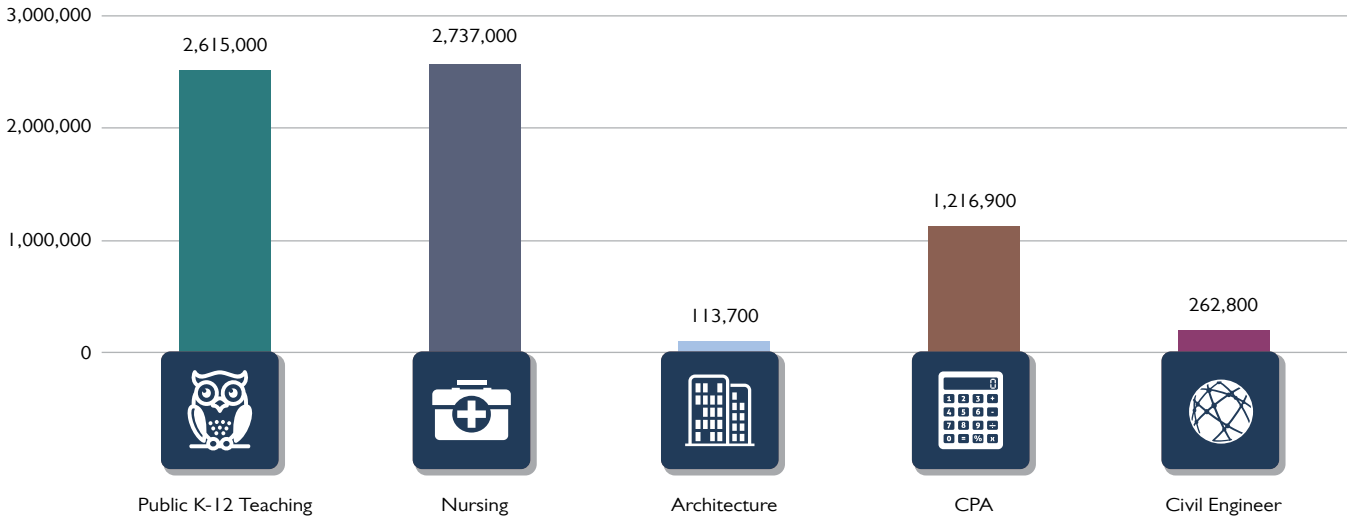
No. of professional in the U.S. as of 2010: 262,800
Median salary: $77,560

Routes into the profession: Bachelor's degree in Civil Engineering

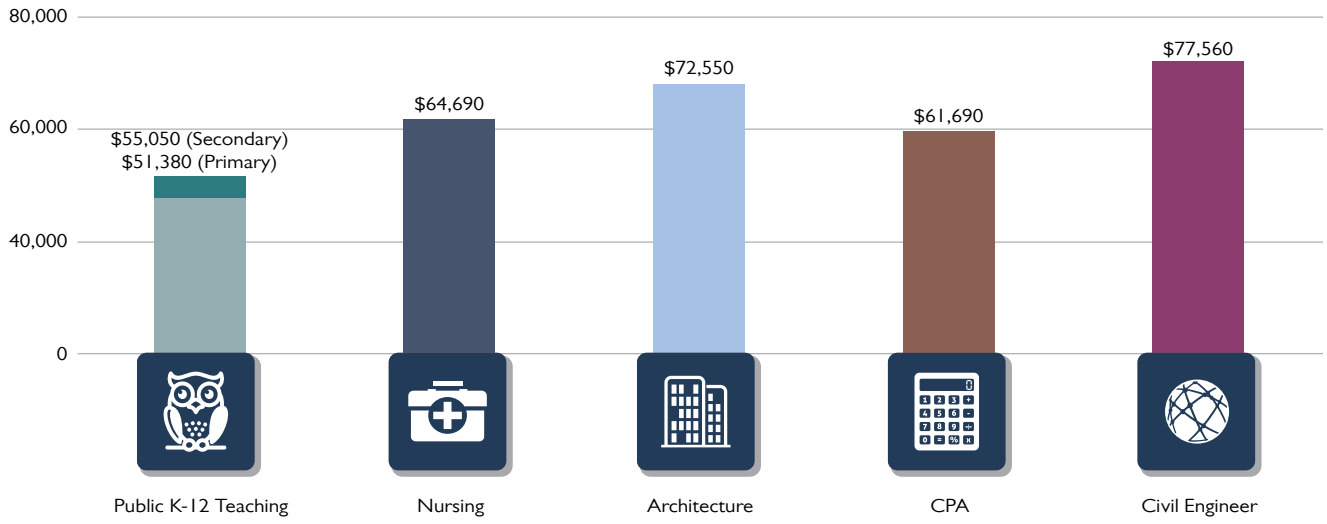
Licensing requirements: Fundamentals of Engineering (FE) Examination; Professional Engineer requirements vary by state.

Career paths: graduate degree usually required for promotion to managerial positions.

NUMBER OF PROFESSIONALS IN THE U.S. AS OF 2010



MEDIAN SALARIES OF SELECT LICENSED PROFESSIONS IN THE U.S. AS OF 2010



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An International Perspective on Teaching as a Profession

The 2009 Program for International Student Assessment (PISA), which measured the performance of 15-year olds in reading, mathematics, and science in 65 countries and economies, did not place the U.S. in the company of the highest performing OECD countries. In fact, the U.S. ranked 17th in overall reading, 31st in mathematics, and 23rd in science. The U.S. was consistently surpassed in all categories by Shanghai, Korea, Finland, Hong Kong, Singapore, Canada, New Zealand, Japan, Switzerland, Australia, the Netherlands, Norway, and Iceland. One of the more sobering conclusions of the PISA analysis is that countries with similar levels of prosperity have very different educational results. These results are also consistent when substituting spending per student, relative poverty, or the share of students with an immigrant background for GDP per capita (OECD, 2010).

McKinsey & Company (2006) conducted a study of the world's top performing school districts and concluded that the quality of an education system cannot exceed the quality of its teachers. High performing districts did three things well:

- attracted the right people to become teachers;
- developed teacher candidates into effective instructors; and
- put into place systems and targeted support to ensure that children benefit from excellent instruction.

Teaching quality is strongly affected by the pool of talent from which teachers are chosen. High quality systems recruit their teachers from the top of each graduate cohort. Finland, Singapore, and South Korea attract 100 percent of their teacher corps from the top third of their academic cohort, compared to just 23 percent in the U.S. (Auguste et al., 2010). Finland, for example, has over 6,000 applicants for 600 jobs (Schleicher, 2011). These systems have rigorous selection systems that control entry into the teaching profession, often pay for teacher training tuition and fees, provide rigorous training and evaluation systems for prospective and new teachers, and provide the teaching profession with high status. Some governments also closely monitor the demand for teachers and regulate supply to match it so that teachers are guaranteed jobs in the profession (August et al., 2010).

High quality systems are characterized by collaborative work cultures that promote teamwork and co-operation among their teaching staff. Japan and Shanghai are notable for having formalized systems of teamwork in which teachers create public lessons based on action research which they share with their colleagues for feedback and refinement—systems known as "lesson study" in Japan or subject-based "teaching study groups" in Shanghai (OECD, 2012).

Great systems also prioritize the quality of teachers over the size of classes. Goldhaber (2006) notes that class sizes in the U.S. are smaller than in other countries, due largely to the use of specialist teachers and staff. As a result, the relatively large size of the U.S. teacher workforce makes any attempt at compensating teachers similar to countries like Germany or Japan, extremely costly. Salaries matter, but studies have not shown a strong relationship internationally between teacher salaries and student achievement. Given teacher shortages that many advanced economies face, it is critical to improve the profession's general status and competitive position in the market. This includes creating competency-based career ladders that provide teachers with specific roles and roles outside of classroom teaching; recognizing teachers' extra responsibilities with a rise in status and/or compensation; and providing part-time teaching or opportunities throughout a teacher's career to gain experience outside of school through sabbatical leaves, extended leave without pay, and job exchanges with industry (Schleicher, 2012).

Figure 3 provides examples of policies in high-performing countries, to illustrate diverse approaches to teacher leadership roles and career paths. It is notable that some systems have more defined career paths, such as Singapore, Shanghai, and Australia. In others, there are less defined career ladders as these countries/provinces seek to engage all teachers in more universally embedded systems of teacher collaboration, action research and sharing of practice (Finland, Ontario [Canada], and Japan). What appears to be universal in all these countries is that teachers generally come from the top of their graduation cohort and that the teaching profession is conferred with high status and often high pay. Many countries set attracting the "best and the brightest" into teaching as a national priority.

Successful systems recognize that teachers' competence and expertise must be consciously nurtured—whether through formalized career paths, differentiated licensing, or professional autonomy.

FIGURE 3. Teacher Policies in Select Countries

SINGAPORE

Recruitment and training: Teachers are recruited from the top third of high school graduates, with only one of eight applicants accepted for admission to the only teacher training institute in Singapore (the National Institute of Education [NIE], located in the Nanyang Technological University, one of the most prestigious institutions of higher education).

Career advancement: A teaching career can take the following tracks: the teaching track which can lead to becoming Principal Master Teachers, the leadership track leading to a formal leadership position in the school (the highest being Director-General of Education), and the specialist track focused on research and teaching policy (Chief Specialist). Singapore also has a new performance management system with a clearly defined, comprehensive teacher competency model designed to attain work-related goals, match teachers to a career path, and determine annual bonuses.

SHANGHAI

Recruitment and training: Teacher recruitment is not standardized across China, but is often competitive in urban areas. Teachers may be educated in special upper secondary schools (for pre-school and primary positions), normal colleges (equivalent to junior colleges), and normal universities in a four-year bachelor's degree program. Teachers must pass the National Mandarin Language Test, and those who do not graduate from a university must also pass four examinations in the areas of pedagogy, psychology, teaching methods and teaching ability. Shanghai requires that primary school teachers must hold post-secondary subject degree diplomas; secondary school teachers must hold a bachelor's degree plus a professional certificate.

Career advancement: Schools have multiple levels of leadership, including the principal and party secretary, three directors, and teaching and research groups. These consist of teachers of the same subject and grade level who are led by master teachers. These groups meet together for up to two hours each week to plan lessons and examine student progress. Teaching and research groups are led by senior or master teachers and are designed to support junior teachers and improve overall instruction in the schools.

FINLAND

Recruitment and training: Teaching is regarded as Finland's most respected profession. Finnish teacher education programs are extremely selective, admitting only one of every ten students who apply. All teachers must now hold a master's degree.

Career advancement: Finland does not have specific leadership roles for teachers; rather, teachers are provided with significant autonomy with respect to how they approach curriculum design and instruction. This professional autonomy and high degree of trust makes teaching a very attractive job, with 90% of trained teachers remaining in the profession for the duration of their careers. There are no formal teacher evaluations with the focus instead on self-evaluation. There is neither performance pay nor bonuses.

SOUTH KOREA

Recruitment and training: Teaching is a highly respected career with good working conditions (a high degree of collaboration among teachers), competitive pay and job stability. It is highly regulated at the elementary level, with the country's 11 teachers' colleges being relatively selective. At the secondary level, there are multiple pathways to certification including attendance at a comprehensive university, with selection occurring at the hiring phase. As a result, there is a shortage of elementary teachers and only 30% of secondary candidates can find jobs. All teachers must pass an employment test administered by the Metropolitan and Provisional Offices of Education to be hired.

Career advancement: South Korea is currently institutionalizing a Master Teacher system, piloted in 2008. Master teachers must have 10-15 years of experience. They remain in a teaching role, but are expected to share their expertise with less experienced teachers as well as develop curriculum, instructional practices and evaluation systems. They receive a small monthly stipend for these roles.

ONTARIO, CANADA

Recruitment and training: Canada is consistently able to recruit high quality students into teaching, with the majority drawn from the top 30% of their college cohorts. Ontario requires a minimum three-year postsecondary degree from an acceptable post-secondary institution plus one year of teacher education before one can teach. Teachers must apply to the Ontario College of Teaching (OCT), an autonomous licensing body for the province of Ontario. Currently, there is an oversupply of teachers in Ontario, enabling districts to be selective in hiring.

Career advancement: Teachers apply for "additional qualification" in order to allow the career teacher to pursue different career options and specialist positions, including supervisory or leadership positions. The OCT recently implemented a professional designation for teachers called the "Ontario Certified Teacher." Designed as a symbol of respect for the role of teachers versus other educational roles, it is available for all teachers in good standing.

JAPAN

Recruitment and training: Teaching is a highly respected profession, and the system is highly selective at both the admission and hiring stages. Only 14% of applicants are accepted into preparation programs, and only 30-40% are hired in public schools. Teachers must pass a National Entrance Examination to be admitted to an undergraduate program. A teacher's certification depends on the amount of education a teacher has when graduating. Most teachers hold a bachelor's degree. Teachers undergo a one-year induction program before becoming a full-teacher.

Career Advancement: Teachers may move from teacher to head teacher and then to principal. There are multiple salary grades within based on performance and experience. Japan is known for its "lesson study" system in which groups of teachers meet to learn informally from their colleagues and exercise significant professional autonomy over the delivery of instruction.

AUSTRALIA

Recruitment and training: Each state or territory has jurisdiction on how teachers are recruited, trained, and certified, although all require a bachelor's degree. Recruiting and retaining highly qualified teachers is a priority of the Department of Education, Employment and Workplace Relations (DEEWR), as a result of concerns over teacher shortages.

Career Advancement: Although there are no specified career paths in Australia, teachers typically have access to a career structure that involves two to four stages, with annual salary increments associated with each stage. These stages range from beginning teachers to experienced teacher, lead teacher, or learning area/grade-level co-coordinator. By the "lead teacher stage," teachers are expected to demonstrate exemplary teaching, educational leadership, and the ability to initiate and manage change.

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Trends in the Business World

Human capital development and talent management have become major issues as businesses face unprecedented global competition as well as a workforce whose composition is evolving in terms of demographics, talent, and career expectations. The workforce over the next several decades[13] is expected to reflect a shrinking pool of skilled labor; changing family structures with two-parent, single-income households comprising only 17 percent of U.S. households; increasing numbers of women in the labor force; and changing expectations of men regarding their careers. Technological changes means there are new options for when, how and where work gets done. People are moving in and out of jobs more frequently, creating challenges to retain and develop talent. Gen X and Gen Y often view careers as personalized paths that fit their individual interests and career development goals. The major drivers for employee engagement are the desire for challenging work, opportunities for training and development, constant learning opportunities, and non-monetary recognition for accomplishments (Benko & Weisberg, 2008; Wellins & Schweyer, n.d.).

In the business world, the conversation has shifted from career ladders to horizontal structures of leadership represented by lattices. This is reflective of the trend to "flatten" organizations, with fewer high-level leadership positions, and placing more trust in the decision-making abilities of those in middle management positions. "Mass career customization" (MCC) is an evolving concept that acknowledges that knowledge workers do not climb straight up the corporate ladder, but rather undergo a journey of climbs, lateral moves and voluntary descents. MCC is a way to create a corporate lattice organization that allows employees to choose between four core dimensions of a career: pace, workload, location/schedule, and role (Benko & Weisberg, 2008).

[13]Benko and Weisberg (2008) described these workforce characteristics as of 2007 and beyond.

Business is focusing on more than just attracting, developing, and retaining talent, but also on organizing people to perform in ways that promote organizational excellence. This involves creating a Human-Capital (HC) centric organization, versus the "structure-centric" approach (still predominant in many sectors of the corporate world) that consists of well-defined jobs, relationships, and control systems. HC-centric approaches entail moving from hierarchical power structures to flatter organizations with fewer signs of status differentiation and an increased emphasis on shared leadership (Lawler, 2008).

Business is also focusing on more than just attracting, developing, and retaining talent, but also on ***organizing people to perform in ways that promote organizational excellence.***

Identifying and retaining high performers has become an organizational imperative in many private sector organizations, especially in wake of the Great Recession. Case studies and research outside of education yield four key strategies: (1) pay with purpose through differentiated pay, competitive pay packages and timely pay raises; (2) challenge high performers and provide them with opportunities for promotion and advancement; (3) design flexible and challenging work roles, including those that do not involve linear advancement; and (4) build lasting teams of high performers (Ableidinger & Kowel, 2010).

High performers are often those individuals who have acquired specific expertise in their area or field. Research has been conducted in fields or professions as diverse as chess and radiology to show that it generally takes ten years in order for a professional to acquire expertise (Berliner, 2004; Ericsson, 1996). Further, there is evidence that in order to acquire this expertise over time, practitioners must engage in a regimen of effortful activities (deliberate practice) of their craft. Deliberate practice is the scaffolding of skills, building from novice through expert, in a methodical and sustained way (Ericsson et al., 1993). Dreyfus and Dreyfus (1986) defined a five-stage model for the acquisition of expertise, with the stages defined as novice, beginner (or advanced beginner), competent, proficient, and expert. Expertise is defined in terms of a worker's knowledge, standard of work, autonomy, coping with complexity, and perception of context. The Dreyfus model has been used as a means to assess and support progress in the development of skills and competencies and provide a definition for an acceptable level for the assessment of competence or capability.

While deliberate practice is recognized as an important component in developing expertise, Cheetham and Chivers (2006) in their study of 20 varied professions determined that informal learning processes may be just as important as formal training, and that practitioners often become fully competent professionals long after their formal professional training had ended. Furthermore, when looking at sports, coaching was rated as the second most important variable in the development of expertise, with practice rated as the third most important variable. Berliner (2004) posits that it takes 5-7 years of experience for a teacher to acquire expertise, if one works hard at it. It is conceivable that—with high quality mentoring or coaching and intentional, organized and embedded professional development—the timeframe for teachers to acquire expertise could be shortened.

In summary, we can learn much from other licensed professions, business, and the teaching profession in countries whose students perform at high levels, and these lessons should be applied more systematically across the teaching profession in the U.S. These include attracting academic high achievers into the profession; identifying and managing talent; and defining career stages associated with the acquisition and demonstration of expertise. The teaching profession needs to recognize and reward expertise by following the lead of other professions that create diverse and flexible career options; link compensation to performance, expertise and responsibilities; and work to retain "high achievers." Generation X and Y workers expect that collaboration and teamwork are built into their day-to-day professional lives and that they will participate in less hierarchical organizations that place more decision-making at middle-levels of the organization. As noted earlier, such working conditions for teachers are common in countries whose students perform at high levels.

The teaching profession needs to recognize and reward expertise by following the lead of other professions that create diverse and flexible career options; link compensation to performance, expertise and responsibilities; and work to retain "high achievers."

There have been attempts in the past to recognize the stages of a teacher's career and promote differentiated roles for teachers that acknowledge specialized skill and knowledge. We address this in more detail in the next section of the report.

PART III. Advancing Teacher Careers: an Historical Overview

In the last decade, national initiatives such as the TAP System, Teacher Incentive Fund, and Race to the Top grant competition have prompted states to re-examine teacher licensing, professional development, performance evaluation, compensation, and teacher career paths. However, such reform proposals are not new. In this part of the report, we examine past as well as recent efforts to attract more talented teachers into the profession, recognize the different stages of a teacher's career, and promote differentiated roles for teachers.

Many early initiatives were outgrowths of the groundbreaking report, A Nation at Risk (National Commission on Excellence in Education, 1983). This report recommended:

- higher standards for teacher-preparation programs
- teacher salaries that were professionally competitive and based on performance
- 11-month contracts for teachers allowing more time for curriculum and professional development
- career ladders that differentiated teachers based on experience and skill, and more resources devoted to teacher-shortage areas
- incentives for drawing highly qualified applicants into the profession; and
- mentoring programs for novice teachers that were designed by experienced teachers.

This report was accompanied by several other influential reports with similar recommendations: Investing in our Children: Business and the Public Schools (Committee for Economic Development, 1985) and A Nation Prepared: Teachers for the 21st Century (Carnegie Forum on Education and the Economy, 1986). In addition to supporting more highly competitive salaries and career ladders for teachers, both called for creating a National Board for Professional Teaching Standards (NBPTS) to certify accomplished teachers.

The mid-1980s ushered in a wave of state-based education reform, some of which focused on re-structuring the teaching profession away from a mid-twentieth century model of a captive pool of female labor managed by predominantly male principals and superintendents that operated on the assumption that educators were largely interchangeable (Hess, 2009a). Examples of these early efforts—including some at the local level and which pre-date the mid-1980s—are summarized below.

The mid-1980s ***ushered in a wave of state-based education reform,*** *some of which focused on re-structuring the teaching profession away from a mid-twentieth century model.*

Differentiated Staffing Models in the late 1960s/early 1970s:

Several districts experimented with differentiated staffing, with one illustrative example being Temple City Unified School District in California. This model included differentiated staffing along a hierarchy: (1) Associate Teachers, the least experienced, full-time teachers; (2) Staff Teachers, "fully trained," experienced teachers; (3) Senior Teachers, who taught 60 percent of the day and held teacher leadership responsibilities; and (4) Master Teachers, who trained the senior teachers and were adept at conducting and understanding research. This model was soon abandoned due to its hierarchical structure. It provided incentives for only a few teachers and was a disincentive for many, as financial constraints and quotas limited access to these differentiated roles for the vast majority of teachers (Coggshall, Lasagna & Laine, 2009).

Tiered Licensing Systems, Professional Certification and Interstate Collaboration

As noted earlier in this report, efforts to promote teaching as a profession included proposals for teacher licensing systems modeled after other professions, with professional standards boards established to set policies regarding teacher education, testing, licensing, and continuing certification (National Commission on Teaching and America's Future, 1996). In 1987, the NBTPS began awarding National Board Certification to qualified candidates as a means to elevate the status, voice, and role of accomplished teachers modeled after other premier professions, such as medicine, engineering, and the law. California was the first state to implement an independent standards board in 1970. Today, 13 states have independent standards boards (California, Delaware, Georgia, Hawaii, Iowa, Kentucky, Minnesota, North Dakota, Oklahoma, Oregon, Vermont, Washington, and Wyoming).[14]

[14]http://nasdtecportal.org/faqs.html

Research into how expertise is acquired and its application to education resulted in recognition of the various stages of a teacher's career and tiered licensure systems. Connecticut was one of the first states to introduce a three-tiered licensure system in 1989 linked to demonstration of teaching knowledge or competency: (1) an initial certificate (issued only upon passing of assessments of basic skills and content knowledge); (2) a provisional certificate (issued upon successful completion of a "clinical professional knowledge assessment); and (3) professional certificate (issued for five years and renewable upon completion of 90 hours of continuing education units). Such a system was unique at the time. In order to encourage more states to adopt such systems, Connecticut Commissioner of Education Gerald N. Tirozzi and California Superintendent of Schools Bill Honig formed a partnership to secure a grant from the National Governor's Association to establish an interstate consortium "that would recognize and support the implementation of the Carnegie Forum's recommendations to improve the teaching profession" (Interstate New Teacher Assessment and Support Consortium, 1988, p. 3). This mission was adopted by the Interstate New Teacher Assessment and Support Consortium (INTASC), an initiative of the Council of Chief State School Officers, one of whose goals was to align standards and assessments for beginning educators with those for accomplished educators being certified by the National Board (Fisk, 1999). Connecticut's licensing and teacher assessment innovations at that time provided a model to other states and encouraged some states to introduce tiered licensing systems to differentiate novice teachers from experienced teachers.

Research into how expertise is acquired and its application to education resulted in recognition of the various stages of a teacher's career and tiered licensure systems.

Career Ladders

Beginning in the mid 1980s, more than 30 states had launched or proposed some form of career ladder to differentiate teacher salaries and provide new leadership roles for teachers (Koppich & Esch, 2012). As of 1989, 46 states expressed interest in career ladder or incentive programs, but only 11 had made significant funding commitments to support such programs. By then, Florida and Alabama had repealed legislation, and funding proposals to launch pilots were never appropriated in Arkansas, Georgia, Idaho, Nebraska, Nevada, New Mexico, and Wisconsin (Brandt, 1990). With few exceptions, the decision to repeal or de-fund career ladder programs was made for a variety of reasons, including the following:

- vague and sometimes controversial criteria for selecting expert teachers;
- little or no training or preparation for differentiated roles;
- ill-defined responsibilities for lead or master teachers;
- opportunities for advancement that were attractive to only a few teachers;
- short-term funding that ended when money ran out, and compensation that was minimal or non-existent for additional responsibility; and
- perceptions that career ladders were top-down policies with hierarchical structures imposed on teachers (Donaldson et al., 2008; Brandt, 1990).

Today, Missouri still has legislation supporting its career ladder program, but funding was terminated in the 2010-2011 school year. An evaluation of this state's program indicated that there was little evidence it operated as a performance incentive program or that it changed teachers' willingness to take on additional duties (Silman & Glazerman, 2009). Only one state (Arizona) has a state-level career ladder program currently in effect; however, the career ladder program was ruled unconstitutional in 2010 on the basis that it was discriminatory because funding was only available for 28 districts (representing one-third of the state's students) out of 209 total districts and no new districts could be added to the initiative. Legislation was passed to phase out the program by FY 2014-15, along with state funding.[15] Unlike Missouri's program, an evaluation report in 2007 cited some favorable results for Arizona's program. An analysis of pupil performance indicated that students in Career Ladder schools had higher levels of performance on the Arizona Instrument to Measure Standards (AIMS), even after adjusting for differences in student and school characteristics. Although the report acknowledged that Career Ladder schools were not randomly assigned to the Career Ladder, it concluded that this approach to raising teacher quality through a performance-based pay plan was functioning effectively in selected Arizona school districts (Dowling et al., 2007).

Peer Assistance and Review (PAR)

The National Education Association recently stated that PAR, "a program of structured mentorship, observation, and rigorous, standards-base evaluation of teachers by teachers, is among the strongest ways to develop great teachers" (NEA Foundation, 2012). PAR is a programmatic initiative to professionalize teachers and give them more authority over their quality of practice. Peer review originated in Toledo in 1981, later expanding to Cincinnati and Columbus, Ohio; Rochester, New York; Poway and Mt. Diablo, California; Dade County, Florida; and Salt Lake City, Utah (Gallagher et al., 1993). These initiatives were designed as a joint endeavor by a school district and its teacher unions to focus resources on the comprehensive support, development, and assessment of teachers. However, many of these initiatives were scaled back or eliminated due to lack of support of the superintendent and other district administrators. The norms against teachers holding authority for personnel evaluations resulted in shifts of responsibility over time to principals taking on more involvement in evaluations (Goldstein, 2010). Today, PAR continues in Columbus, Ohio, in the "100% Project schools," which are supported by the NEA Foundation (NEA Foundation, n.d.). PAR is also still in operation in Cincinnati and Toledo, Ohio; and in Rochester and Syracuse, New York, and Montgomery County, Maryland. Papay and Johnson (2011) conducted a cost-benefit analysis examining the financial costs and short-term benefits of PAR. They concluded that, although a relatively extensive reform (costing on average $4,833 per novice teacher and $8,350 per teacher on intervention), districts derive two main benefits: increased teacher retention and lower arbitration and dismissal costs.

PAR is a programmatic initiative to professionalize teachers and give them ***more authority over their quality of practice.***

[15]Interview with the Director of the Arizona Career Ladder Program.

PAR represents a significant challenge to the norms that work against teachers in leadership roles (Tyack & Cuban, 1995). These include the prediliction of "being nice" over substantive criticism, shifting teachers' and principals' roles over who has control, altering the typically solitary nature of teacher evaluation by making it transparent to colleagues, and altering educational accountability particularly around the need to take responsibility for quality control.

Teacher Induction Programs

Similar to PAR, teacher induction and mentoring challenges the norms of teachers working in isolation from colleagues (Little, 1990). Mentoring programs are part of the recognition that there are multiple stages of teacher growth, including the apprentice stage, when teachers assume responsibility for planning and delivering instruction on their own (Steffy et al., 2000). Such programs also offer veteran teachers in the "expert teacher" stage to pursue opportunities to assume leadership roles in their schools by working with one or more novice teachers (Bray et al., 2000). Teacher induction programs began gaining traction in the 1980s, based on concerns about new teachers' struggles in the early stages of their careers and evidence of increasing turnover rates. By the early 1990s, 40 percent of new teachers reported participating in a formal induction program; by the late 1990s, 80 percent reported taking part (Smith & Ingersoll, 2004). The Santa Cruz New Teacher Project, which was established in 1988, became a national model of a comprehensive teacher induction system that spread to other California districts, prompted the establishment of the New Teacher Center, and influenced the development of teacher induction systems across the nation.[16] Teacher induction initiatives of the late 1980s and 1990s, however, were often unevenly implemented with inadequate or unsustainable funding. Systems for selection and training of mentors were seldom systematic or rigorous. With a few exceptions (Santa Cruz, California), mentors' teaching loads were generally not changed nor were salaries differentiated other than perhaps the payment of a small stipend. Currently, only three states (Connecticut, Delaware, and Iowa) require schools and districts to provide multi-year induction support to beginning teachers, require teachers to complete an induction program to obtain a professional teaching license, and provide dedicated state induction funding (Goldrick et al., 2012). Strong (2006) noted that teachers who received induction support from a full-time mentor with a caseload of no more than 15 teachers during their first year of teaching had greater student-by-teacher gains in reading than teachers who received support from a colleague with no released time. However, data and research on the relative costs and benefits of induction are scarce (Ingersoll, 2011), and there has been little research conducted on the impact of mentoring on the teaching practice or effectiveness of veteran teachers in mentoring roles. A report on Connecticut's teacher induction program[17] included survey results from veteran teachers who served as portfolio scorers (many of whom also served as mentors in their own districts). Findings indicated that the portfolio scoring program positively affected the quality of their own teaching, improved their ability to mentor other beginning teachers, and provided them with expanded leadership opportunities in their schools and districts (Natale & Lomask, 2005).

Similar to PAR, ***teacher induction and mentoring challenges the norms*** *of teachers working in isolation from colleagues.*

[16]http://www.newteachercenter.org/induction-programs/programs/scsvntp

[17]Connecticut's induction program was called the Beginning Educator Support and Training (BEST) Program until 2010 when the program underwent significant changes, including the elimination of the portfolio assessment. It was replaced with Connecticut's Teacher Education and Mentoring (TEAM) Program (http://www.ctteam.org).

Professional Learning Communities and the Growth of Teacher Leadership

In the 1990s, education reform centered on creating professional learning communities (PLCs) of educators, with the leadership often fluid and exercised by many teachers. Some studies showed that strong professional communities promote shared responsibility for students' progress and innovative teaching methods. In addition, they could substantially enhance the careers of teachers (McLaughlin & Talbert, 2001). Collegial interactions were more often present in schools that were successful than in less successful schools (Little, 1982). Generally, when teachers took on "expanded roles," these roles still conformed to the established culture of teaching, with equal status and teacher autonomy fiercely guarded (Donaldson et al., 2008). Despite good intentions, some teachers responded negatively to PLC initiatives that aimed to increase their professional judgment and accountability (Talbert, 2010).

The standards and accountability movement of the early 2000s (ushered in by the No Child Left Behind legislation) created new demands for expanding instructional capacity within schools and holding schools and teachers more accountable for results. Teachers were selected to serve as instructional coaches, deliverers of professional development, and student learning data analysts. This shift in roles began to challenge the assumption that all teachers are equal and have limited autonomy over what and how to teach.

Teacher leadership has been promoted as a means to professionalize teaching and reform schools (Little, 2003; Danielson, 2006; Killion & Harrison, 2006; Crowther et al., 2002; Lieberman & Miller, 2007), but its definition differs widely. York-Barr and Duke (2004) have defined teacher leadership as "the process by which teachers, individually or collectively, influence their colleagues, principal, and other members of the school community to improve teaching and learning practices with the aim of increased student learning and achievement" (p. 9). Danielson (2006) defines a more informal role: "a set of skills demonstrated by teachers who continue to teach students but also have an influence that extends beyond their own classrooms to others within their own school and elsewhere. It entails mobilizing and energizing others with the goal of improving the school's performance of its critical responsibilities related to teaching and learning" (p. 12). In contrast, Katzenmeyer and Moller (2001) describe teacher leaders as "teachers who are leaders within and beyond the classroom, identify with and contribute to a community of teacher learners and leaders, and influence others toward improved educational practice" (p. 9). Because the term "leadership" connotes power and authority, there is often confusion about the meaning of "teacher leadership," which suggests something often very different than traditional definitions of leadership in the workplace. Fullan (2009) offers a more expansive definition of teacher leadership. Instead

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of a single individual working to change a bureaucratic system, he proposes a more complex notion of teacher leadership, which involves more layers of leadership and the creation of a new collaborative culture aligned with distributed leadership and "re-culturing" or transforming the culture of schools (Fullen, 2001). Opinions vary whether teacher leadership is about individuals in leadership roles or teacher leadership as a process. Because of these differences in the way teacher leadership is envisioned, more empirical research is needed (Jackson et al., 2009).

It was not surprising that placing teachers in leadership roles was threatening to the traditional norms of the profession and required a shift in the culture of schools. Donaldson et al. (2008) conducted a study of 20 second-stage teachers who held differentiated roles that were formal, compensated by time or money, and which were designed to be ongoing rather than temporary.[18] Those teacher leaders who sought to change colleagues' practices encountered resistance to feedback and resentment over the special recognition given to these teachers. Those who supported colleagues and did not challenge their classroom practice did not struggle with disgruntled colleagues and felt their work was more rewarding.

The failure of teacher leadership to become more of the "norm" than the exception suggests that there was an absence of a larger professional framework that formally recognized and supported these teacher leaders' reform roles. Training, recognition, and time for collaboration were frequently uneven or absent. Too often, these leadership roles were viewed as taking highly effective teachers away from the classroom, thereby discouraging otherwise qualified teachers from taking on such roles. As a consequence, new teacher roles had limited impact because most schools remain organized in a one-teacher-one-classroom mode, restricting opportunities for collaboration and more effective teacher leadership. Like the career ladders described earlier, funding for teacher leadership positions was too often short-lived.

*Teacher leadership opportunities will likely be critical in **recruiting talented individuals into the teaching profession** who might otherwise choose other professions.*

It is increasingly evident that the most recent generation of teachers may hold different assumptions and expectations than their veteran colleagues and may seek to challenge established norms of autonomy, egalitarianism, and seniority in schools. Teacher leadership opportunities will likely be critical in recruiting talented individuals into the teaching profession who might otherwise choose other professions. In addition, these teachers will expect opportunities to participate in decision-making at the school and district level, to assume specific leadership roles, and to be provided with recognition and financial rewards for high performance. In the next section of this report, we describe how to promote a 21st century vision of teacher career advancement that addresses some of the shortcomings of previous attempts to challenge the cultural norms of teaching and the flatly linear and hierarchical career continuums of the past that often placed classroom teaching at the bottom career rung.

[18]Defined as being in their 3rd through 10th year of teaching (Donaldson et al., 2008)

PART IV. Creating a 21st Century Vision of a Teacher Career Advancement Continuum

There are some hopeful signs that the teaching profession may finally be ready to embrace change in its conceptions of a teacher's career, as new staffing and career path models are emerging. Gen Y teachers—a new generation with different career aspirations—are projected to make up nearly half of the workforce in 2020 (Coggshall et al., 2011). According to the 2012 MetLife Survey of the American Teacher, fewer teachers in general want to become principals, but there is growing interest in teachers teaching in "hybrid roles"—those roles that keep them part-time in the classroom combined with other roles of service and leadership in education (MetLife, 2013). Berry (2011) has coined the term "teacherpreneurs," for those teachers who develop their pedagogical talent, "sell" their expertise, and find innovative solutions to challenges facing their students. These opportunities are envisioned as new pathways for leadership and as ways to strengthen the profession, increase job satisfaction, and retain effective teachers. Interest in these hybrid roles is particularly strong among mid-career teachers, high school teachers, and those in urban schools or schools with high proportions of low-income students (MetLife, 2012).

*Gen Y teachers—**a new generation with different career aspirations**—are projected to make up nearly half of the workforce in 2020.*

Restructuring Teachers' Jobs and Career Paths

As the baby boom generation retires, actions also need to be taken to build stability and longevity into "a teaching force that threatens to become a revolving door of itinerant workers" (Coggins et al., 2010, p. 71). Making teaching a lifetime career may not fit Gen Y, but keeping a promising teacher for a five-to-ten year period makes practical sense. Newcomers to the profession may be encouraged to set longer-term goals if there is a second career stage that values teacher effectiveness and involves leading from the classroom.

Teach for America (TFA), established in 1990, has become well-known for its recruitment of academically strong college graduates to teach for two years in low-income, high minority school districts. TFA points out that, in the 2012-13 school year, more than 10,000 corps members will teach 750,000 students while their nearly 28,000 strong alumni corps will continue their commitment to improve educational opportunities by serving as educational leaders and/or advocates.[19] Critics of TFA note that levels of attrition from the program are high and there is inconclusive evidence of stronger student achievement gains from TFA members compared to traditional teacher preparation program graduates (Center for Urban and Multicultural Education, n.d.). A more recent study suggests that two-thirds of TFA teachers stay in teaching beyond their two year commitment, although less than a quarter stay in their initial, low-income school for more than three years (Donaldson & Johnson, 2011). Clark et al. (2013) examined the performance of teachers who entered teaching through either TFA or The New Teacher Project (TNTP)

[19]http://www.teachforamerica.org

Teaching Fellows programs[20] and concluded they were at least as effective at teaching secondary math as those who entered via traditional or less selective alternative routes to certification, and in some cases they were more effective. The authors conclude that the TFA and Teaching Fellows programs represent two examples of program models for recruiting, selecting, training, and supporting teachers that can address teacher shortages in secondary math within high-need schools without decreasing student achievement. Nonetheless, Linda Darling-Hammond (2011) points out that—even if there is evidence that TFA teachers become at least as effective as fully credentialed teachers—the estimated $70,000 it costs to train TFA teachers and the associated high turnover rates suggest that teacher residency-models operating in partnership with universities may be more cost-effective than TFA.

The Teach Plus Policy Fellows Program is another example of a program that selects small cohorts of highly motivated, early-career teachers to teach in high poverty schools. These teachers see themselves as leaders, even at the early stages of their careers. They want to work on policy issues and become a voice for their generation in the profession. The proposal put forth by the Boston Policy Fellows 2007-2009 describes their vision for restructuring career growth for teachers who want to remain in the classroom without stagnating. The current system that rewards and doles out opportunities on the basis of seniority does not meet their needs. The core features of the Teach Plus/Boston Policy Fellows proposal is shown on Figure 4 (Teach Plus, n.d).

One study concluded that the TFA and Teaching Fellows programs represent two examples of ***program models for recruiting, selecting, training, and supporting teachers*** *that can address teacher shortages in secondary math within high-need schools without decreasing student achievement.*

[20]The TNTP Program—similar to TFA—is a program with selective admissions criteria that seeks academically accomplished teachers to teacher in hard-to-staff subject in high-poverty schools. http://tntp.org

FIGURE 4. Teach Plus: A Proposal by Early Career Teachers in Urban Schools "Career Growth with a Focus on Continued Classroom Teaching"

Authors: The Boston Policy Fellows 2007-2009, an initiative of Teach+Plus and the Rennie Center for Educational Research and Policy

Partners with Teach+Plus: Boston Public Schools in the implementation of Teacher Turnaround Teams or T3

Elements of the Excellence Corps teacher staffing model:

- Rigorous selection process
- Team-based approach to staffing
- Differentiated pay, with teachers serving in formal leadership roles compensated with supplemental pay or a reduced teaching load. All teachers eligible for bonuses if a school meets its schoolwide achievement goals and a teacher meets his or her individual achievement goal.
- Distributed leadership: requires a strong principal and frequent collaboration between administration and staff.

Sources:

Teach Plus, n.d.; Coggins et al., 2010.

Restructuring teachers' jobs and career paths may also hold promise (along with adequate incentives and improved working conditions) to recruit midcareer and second-career professionals who are considering teaching as an encore career. Gen X-ers expect to work for six to nine employers over their lifespan; Gen Ys even more. Women often have to accommodate family responsibilities and are expected to move in and out of the workforce more frequently than ever before (Haselkorn & Hammerness, 2008).

Re-thinking teachers' job descriptions is particularly important in light of projected difficulties in staffing schools with highly effective teachers in the future. Up to 30 percent of a teacher's time is expended in bureaucratic duties such as taking attendance, compiling report cards, and patrolling hallways and cafeterias. Hess (2009a) points out that there are large opportunity costs associated with the inefficient use of teachers' time and expertise. He recommends that schools find ways to "squeeze more juice from the orange" by better using support staff, instructional specialization, and technology.

Restructuring teachers' jobs and career paths may also hold promise (along with adequate incentives and improved working conditions) to recruit midcareer and second-career professionals who are considering teaching as an encore career.

Neo-differentiated Staffing

The education profession may also be suited to embracing the concept of "mass career customization" (Weisberg & Benko, 2008) that would allow teachers to both dial up and dial down in their careers rather than following a linear career trajectory. Coggshall, Lasagna and Laine (2009) have adapted the concept of mass career customization into their vision of "neo-differentiated staffing." In this innovative staffing model, teachers are organized into teams and their roles are differentiated according to their skill, expertise, the demands of the curriculum, and the needs of children. "…[A] system of neo-differentiated staffing will ensure that each educator can specialize in one aspect of a child's education and together with his or her colleagues ensure that each component of holistic learning is adequately attended to and that all students achieve mastery of Performance Competencies" (p. 4). In addition, some of the work of teachers can be outsourced to experts in other schools, communities, and states, as education is being increasingly unbundled. The old "neat brick-and-mortar school package," one-teacher-per-classroom delivery models, and century-old Carnegie Units that dictate how students progress through school no longer meet the needs of 21st century students, schools, or teachers.

*Neo-differentiated staffing models provide a contrast to the currently flatly linear teacher career path as **these would allow teachers to move flexibly between roles** as their expertise shifts, interests evolve, and family responsibilities grow and recede.*

Neo-differentiated staffing models provide a contrast to the currently flatly linear teacher career path as these would allow teachers to move flexibly between roles as their expertise shifts, interests evolve, and family responsibilities grow and recede. Expertise of teachers in advancing student learning would be identified on the basis of credible models of evaluating student learning gains. A neo-differentiated staffing model is designed to work in a context where teachers are used to working with colleagues and accept the idea of differential pay (Coggshall et al., 2009). Hassel and Hassel (2009) add to this idea by suggesting that when teams of educators in differentiated roles reach more students, even without increasing class sizes, the freed per-pupil revenue exceeds the costs of "extended reach" —paraprofessional support and in some cases technology. This provides a "natural" way of paying teachers for career advancement, and advancement becomes defined not just by attaining excellence with students, but by the number of students that a teacher teaches.

Differentiated Pay Structures

Discussions of teacher career paths inevitably lead to proposals for differentiated pay structures. The Retaining Teacher Talent study found that more teachers of all generations support some type of differentiated pay, with Gen Y teachers somewhat more supportive of all types of pay differentiation (although with skepticism about how "performance" would be measured in setting individual performance bonuses). Gen Y teachers were overwhelmingly supportive of giving financial incentives to teachers

who put in more time and effort than other teachers (Cogshall, Ott, Behrstock, & Lasagna, 2009). Similar results were found in a survey by Education Sector and FDR Group (Duffett et al., 2008). Merit pay and differentiated pay are undergoing a resurgence, supported in part by the federal government's Teacher Incentive Fund (TIF). However, in most cases, these are new pay components appended on existing compensation plans instead of being used as part of a comprehensive human capital strategy for developing teachers through all stages of a teacher's career. Johnson and Papay (2009) present an alternative to teacher bonuses for strong performance, which can discourage collaborative work among teachers, create technical problems in identifying the "most successful teachers" based on student test scores, and fail to compensate for poor working conditions. Merit pay also presents problems, because it is often relatively free-standing and unaligned with district goals for student, the staffing needs of schools, or career aspirations of teachers. Johnson and Papay's alternative model is termed the "Tiered Pay-and-Career Structure." This model proposed four professional tiers for teachers: Tier I—probationary teachers; Tier II—professional teachers with tenure; Tier III—master teachers and school-based leaders; and Tier IV—school and district leaders. Each tier is associated with differential compensation. Stipends to promote new teacher leadership roles would also be provided to teachers who hold specialized roles in Tier III and IV such as staff developers, peer evaluators, technology specialists, or analysts of student data.

New Roles for Teacher Unions

Teacher unions are sometimes seen as resisting changes to the traditional "lane and step" teacher compensation systems. However, there are some examples of successful district-union agreements that modified teacher contracts to promote teacher leadership and differential roles. One such initiative is profiled in Figure 5.

FIGURE 5. AFT Local 1977 (St. Francis, Minnesota)

Description: a transformative career ladder program with alternative compensation that allows for differentiation and career staging, as well as recognition of exceptional performance. It consists of the following components:

Teacher Academy: a teacher-led, research-based, ongoing, job-embedded required professional development.

Performance Review teams: teams consist of an administrator, teacher leaders and the teacher being evaluated

Mentorship: assigned to all teachers during their first three years of teaching or during any within-district transfer

Career Ladder: a system of formal teacher leadership (e.g., mentor, instructional specialist)

Alternative Salary Schedule: a pay scale that offers teachers higher salaries as well as advancement up the salary scale based on performance levels and leadership positions rather than years of experience and degrees alone.

Source:

Coggshall, Behrstock-Sherratt, & Drill, 2011

Another example of a successful district-union agreement was the teacher contract ratified in conjunction with the San Juan Teachers Association for California's San Juan Unified School District. This contract implemented differentiated compensation with additional pay for practitioners serving on school leadership teams (National Council on Teacher Quality, 2010).

In the next section of this report, we describe some initiatives currently underway that can help shape new models for teacher career pathways.

PART V. Promising Practices and Innovations

We have divided this section into three parts. Part A highlights four different innovative models for teacher career advancement: the Arizona Career Ladder Program, the TAP System, Public Impact's Opportunity Culture, and the District of Columbia Leadership Initiative for Teachers (LIFT) initiative. Part B provides an overview of federal efforts to transform the teaching profession through the Teacher Incentive Fund and Race to the Top grant competitions and the recently launched Recognizing Educational Success, Professional Excellence, and Collaborative Teaching (RESPECT) Project. In addition, we describe multi-state and national efforts through such organizations as the National Board for Professional Teaching Standards, the Teacher Leadership Exploratory Consortium, and the Multi-State Consortium, as well as the American Federation of Teachers (AFT) and National Education Association (NEA) position statements on the teaching profession. Part C provides an overview of state-based initiatives to promote comprehensive teacher career ladder initiatives or teacher leadership roles through such mechanisms as tiered teacher licensure systems, teacher leader/master teacher endorsements, the development of continuums of teaching practice, or other efforts.

Part A: Innovative models of teacher career advancement

Of the four models presented below, the Arizona Career Ladder and the TAP System have been in effect for an extended period of time and, therefore, provide evidence of sustainable initiatives. The Opportunity Culture and DC LIFT initiatives are still in the early stages of implementation. However, their unique and comprehensive approaches to re-structuring teacher roles and career paths make them worthy of serious study and attention.

Arizona Career Ladder Program[21]

As noted earlier in this report, the Arizona Career Ladder is the longest-standing state-based career ladder initiative in the country. Unfortunately, state funding is slated to be fully phased out by the 2014-15 school year as a result of a lawsuit challenging the law's constitutionality over inadequacy of state funding, which restricted additional districts from being able to participate in the program. Nonetheless, the longevity of this initiative and the comprehensive nature of the career ladder program are noteworthy. An external evaluation cited higher levels of student achievement in career ladder schools (Dowling et al., 2007), which makes it important to include in this report.

The Arizona Career Ladder and the TAP System have been in effect for an extended period of time and, therefore, ***provide evidence of sustainable initiatives.***

The goal of the Arizona Career Ladder Program is to establish a performance-based compensation plan that provides incentives to teachers who choose to advance their careers without leaving the classroom. By attracting and retaining talented teachers, the expectation is that student achievement will increase. The program supports collaboration and teamwork; provides opportunities for leadership and professional growth; and allows districts to provide awards based on group, team, school or district-level performance. Rather than advancing on a salary schedule as a result of seniority and educational credits, teachers are paid according to their level of skill attainment and demonstrated student academic progress. Districts have wide latitude in designing their Career Ladder plans as long as they comply with state requirements. Twenty-eight of the state's 200-plus districts participate in the Career Ladder Program, impacting about 31 percent of the state's students and 40 percent of its teachers. It should be noted that some of the participating districts anticipate continuing the career ladder program after state funding is eliminated by using a combination of local and external grant funding, with some districts such as Scottsdale, Arizona, having been financially self-sustaining for some period of time.[22]

TAP System (TAP™)

The Tap System (TAP) has been in effect since the 2000-01 school year and has offered a comprehensive approach to school reform based on enhancing the quality of teaching and offering career advancement to effective teachers. As of the 2011-12 school year, this system reaches about 20,000 teachers and 200,000 students in 347 schools and 80 districts. The National Institute for Excellence in Teaching (NIET) now administers the program, provides technical assistance to schools and districts, ensures quality control, and collects data about the effectiveness of the program. Figure 6 summarizes the four interrelated elements which are designed to increase teacher job satisfaction, recruitment, and retention in high needs schools.

[21] http://www.azed.gov/highly-qualified-professionals/arizona-career-ladder/
[22] Interview with Director of the Arizona Career Ladder Program

FIGURE 6. COMPONENTS OF THE TAP SYSTEM

MULTIPLE CAREER PATHS:

Career teachers have the opportunity to serve as master and mentor teachers and receive extra compensation for these roles. They form a leadership team, along with administrators, to deliver school-based professional support and conduct evaluations with a high level of expertise.

ONGOING APPLIED PROFESSIONAL GROWTH:

The TAP System provides techers with ongoing, job-embedded, collaborative, student centered professional development led by expert instructors.

INSTRUCTIONALLY FOCUSED ACCOUNTABILITY:

Teachers are evaluated by a comprehensive system that holds them accountable for meeting the TAP System Teaching Skills, Knowledge and Responsibilities Performance Standards and promoting the academic growth of their students. Classroom evaluations are complemented by value-added analysis of student achievement growth.

PERFORMANCE-BASED COMPENSATION:

Teachers can earn additional compensation based on new roles and responsibilities, accomplishments in their classroom, and the performance of their students. Performance pay can reach up to $20,000.

Source:

NIET, 2012; http://tapsystem.org/

A TAP System Research Summary (NIET, 2012) examined differences between high- and low-performing TAP System schools and concluded that consistently high performing schools had implemented all four key elements of the TAP System, had principals who demonstrated full support for the TAP System, were found in states with well-developed statewide support structures, and were recognized by state leaders and their own principals as having high quality master and mentor teachers on staff. In general, TAP System schools show consistently high rates of student achievement growth, TAP System teachers show growth over time in the quality of their instruction, and the TAP System increases the recruitment and retention of highly effective teachers. Implementing the TAP System in a school generally costs from $250-$400 per student per year, and districts must often reallocate funds as well as seek supplemental financial support from state and local sources, foundation support, and federal funds such as the Teacher Incentive Fund (Lasagna, 2010).

*In general, **TAP System schools show consistently high rates of student achievement growth,** teachers show growth over time in the quality of their instruction, and the TAP system increases the recruitment and retention of highly effective teachers.*

Public Impact "Opportunity Culture" Initiative

Public Impact has made operational Hassel and Hassel's (2009) vision through the development of the "Opportunity Culture Initiative," an innovative model for staffing schools which aligns with the concepts of "neo-differentiated staffing models" and "tiered pay-and-career structures" described earlier. The end goal of these models is to reach every student with excellent teachers in charge of learning. In the Opportunity Culture models, teachers earn more and advance their careers by "extending their reach" to more students, directly or by leading peers in teams (Public Impact, 2012). The models are designed to provide for career advancement and higher pay and to be funded sustainably rather than with temporary grants. The goal of reaching more students with excellent teaching is accomplished typically by redesigning teachers' roles in teams that include paraprofessional support and by using age-appropriate technology to help excellent teachers save time, work with their peers, and reach more students. In most models, newer teachers work in teams with their high-performing peers, and co-planning time is available daily so teachers learn from each other and their team leaders as they plan and deliver instruction. These models also change school culture by providing teachers with more authority and accountability for all of the students they "reach." Key features of Public Impact's Opportunity Culture are summarized in Figure 7.

The Opportunity Culture models are currently being piloted in several locations around the country, including Charlotte-Mecklenburg's Project L.I.F.T.,[23] Nashville Public Schools' Innovation Zone, and Clark County in Nevada (Las Vegas). At least five charter school networks are also using "reach" models, including Rocketship Education, Touchstone Education, Ingenuity Prep, Venture Prep, and Foundations Prep. The Denver Public Schools are also piloting similar team-based models with teacher-leaders. Most early implementers are combining these models to optimize higher pay, collaboration, job-embedded development time for teaching teams, and reaching as many students as possible with excellent teachers and teams. Student learning outcomes for all of the pilots are expected to be available in mid-2014.

[In the Opportunity Culture model] newer teachers ***work in teams with their high-performing peers,*** *and co-planning time is available daily.*

[23]Note that this initiative is entirely separate from the District of Columbia's LIFT initiative noted later in this report.

FIGURE 7. Reach Extension Principles in Public Impact's Opportunity Culture Initiative

1. Reach more children successfully with excellent teachers.
2. Pay excellent teachers more for reaching more children successfully.
3. Achieve permanent financial sustainability, keeping post-transition costs within the budgets from regular per-pupil funding sources.
4. Include roles for other educators that enable solid performers both to learn from excellent peers and to contribute to excellent outcomes for children.
5. Identify the adult who is accountable for each student's outcomes, and clarify what people technology and other resources (s)he is empowered to choose and manage.

Highlighted Features of Opportunity Culture School Models

- Multi-classroom leadership: teachers with leadership skills both teach and lead teams or "pods" of other classroom teachers to share strategies and best practices for classroom success. Larger teams may also have paraprofessional support.
- Elementary specialization: a school's best teachers teach one or two core subject pairs (math/science or language arts/social studies), while teammates take care of students the rest of the time and cover administrative work.
- Time-technology swaps: Students spend part of the day engaged in self-paced digital learning—as little as one hour daily at the elementary level. This replaces enough of top teachers' time that they can teach more students and collaborate in teams, using face-to-face teaching time for higher-order learning and personalized follow-up.
- Class size increases: Excellent teachers teach larger classes, by choice and within limits that still allow them to achieve outstanding learning outcomes.
- Remote teaching: When the right teachers are not available in-person, remote teachers use technology to provide live, but not in-person instruction, while on-site teammates manage administrative details and manage the whole child.

Source:
http://opportunityculture.org/our-initiative/ and Public Impact

DC Leadership Initiative for Teachers (LIFT)

In the 2012-13 school year, District of Columbia Public Schools launched the LIFT initiative, a five-stage career ladder that provides high-performing teachers with opportunities for advancement inside the classroom, as well as additional responsibility and increased recognition and compensation. LIFT builds upon IMPACTplus, a ground-breaking performance-based pay system introduced during the 2009-10 school year, in which teachers could earn annual bonuses as high as $25,000 and base salary increases of up to $27,000. With LIFT, the largest salary enhancements are made available to teachers who work in the 40 lowest-performing schools, including increases to base salaries if they achieve advanced, distinguished, and expert teacher stages, regardless of their years in the system. The goal is to honor teachers as professionals and to encourage high quality teachers to work in high-poverty schools.

*The goal is to honor teachers as professionals and to **encourage high quality teachers to work in high-poverty schools.***

The following illustrates the stages of LIFT:[24]

Career Stage	Requirement to advance up the LIFT Career Ladder
Teacher	1 Highly Effective rating or 2 Effective ratings
Established Teacher	1 Highly Effective rating or 2 Effective ratings
Advanced Teacher	2 Highly Effective ratings
Distinguished Teacher	2 Highly Effective ratings
Expert Teacher	(Note: as of the 2012-13 school year, there were no teachers at the Expert Teacher stage)

The district also provides a wide variety of teacher leadership roles, from serving as a lead teacher or curriculum writer to organizing monthly meetings of teachers in the teacher's content area, or helping the teacher recruitment team select new teachers for the district. Eligibility is based upon teachers' career stages, and teachers must apply and be selected for these positions.

The initiative was implemented in the 2012-13 school year, and subsequent feedback from teachers may result in further changes to the model.[25]

[24]http://dc.gov/DCPS/In+the+Classroom/Ensuring+Teacher+Success/Leadership+Initiative+For+Teachers+(LIFT)
[25]Interview with Cynthia Robinson, DC LIFT coordinator

Part B: Federal and National Initiatives

Teacher Incentive Fund (TIF)

TIF was established in 2006 to support performance-based teacher and principal compensation systems in high need schools, primarily through grants to school districts and consortia of school districts. TIF supports performance-based compensation systems that reward teachers and principals for increases in student achievement and boost the number of effective instructors in hard-to-staff subjects and in high need schools. In order to qualify, applicants must agree to establish compensation systems that differentiate compensation based on student achievement gains, as well as through classroom evaluations. NIET has successfully competed for TIF funds to support the TAP System, and in 2012 was awarded three five-year grants for about $40 million.[26]

Race to the Top (RTT) Federal Grant Competition

This competitive grant program is designed to encourage states to implement reforms in four specific areas:

- adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- turning around our lowest-achieving schools.

States were asked to include strategies that addressed teacher leadership in their applications. In the first round of applications, nine states proposed using evaluation results to identify effective teachers to serve in leadership roles; one state proposed revising their teacher leader standards; one state proposed a tiered licensure structure that includes teacher leadership requirements; and 20 states proposed providing additional pay for teachers taking on new roles and responsibilities (NCTQ, 2010). Whether states actually were awarded RTT funds or not, these requirements have had a significant influence on state initiatives to alter their teacher licensure systems, implement new teacher evaluation systems that incorporate measures of teacher effectiveness, and implement differential compensation structures that recognize teachers in leadership roles. Part C addresses these trends in more detail.

The RESPECT Project

The Obama Administration recently launched the Recognizing Educational Success, Profesional Excellence, and Collaborative Teaching (RESPECT) Project to promote a national conversation led by active classroom teachers in order to elevate teacher voice in shaping federal, state, and local education policy. Hundreds of educators participated in the crafting and vetting of the RESPECT language. The Administration's recently proposed budget includes a new $5 billion competitive grant program that would challenge states and school districts to work with teachers, unions, colleges of education, and other education stakeholders to reform the teaching profession.[27] The RESPECT Project Vision statement (Envisioning a Teaching Profession for the 21st Century) is designed for use in conversations with teachers and principals about the teaching profession and to inform future policy or program directions.[28]

[26]http://www2.ed.gov/programs/teacherincentive/2012awards.html
[27]http://www.ed.gov/blog/2012/02/launching-project-respect/
[28]http://www.ed.gov/teaching/national-conversation/vision

National Board for Professional Teaching Standards (NBPTS): Teacher Leader Certification[29]

Building upon the success of the National Board certification for teachers and school counselors, the NBPTS is launching an initiative to develop National Board Certification for teacher leaders and principals. These new certifications are designed to promote teacher leaders, working with principals, to serve as instructional and organizational change agents who have a critical impact on school, teacher, and student success. Further, the Teacher Leader certification is intended to promote the recruitment and retention of accomplished teachers.

Teacher Leadership Exploratory Consortium

In May 2008, a group of concerned educators convened to examine the current research and thinking about the critical leadership roles that teachers play in contributing to student and school success. This group expanded its membership to include a broad array of education organizations, state education agencies, teacher leaders, principals, superintendents, and institutions of higher education to develop model standards for teacher leadership. These model standards[30] were released in 2010, and have been used by numerous states in the exploration of their own standards and policies for teacher leadership.

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The Multi-State Consortium[31]

In 2009 representatives from six states—Arkansas, Kansas, Missouri, South Dakota, Utah, and West Virginia—joined together as a multi-state consortium to engage in a collaborative effort to re-vision a new system of educator recruitment, preparation, development and advancement. This initiative, which was supported by the National Staff Development Council (NSDC, now Learning Forward) and Educational Testing Service, developed a working model of a continuum of teaching practice which defined constructs at each of the four stages of a teacher's career: pre-practitioner, novice practitioner, developing, and experienced practitioner. Consortium members were encouraged to go back to their states to develop and promote policies to support this system, pilot a continuum of development and support, and revise the continuum based on results of the pilot (Educational Testing Service, 2010). Georgia and Kansas were among the states that subsequently implemented a continuum of practice as part of their state policies as a means to advance the concept of a career continuum.

Reforms Proposed by Teachers' Unions/Education Associations

Long-established norms of the teaching profession have often inhibited initiatives to place new teacher-leaders in evaluative or supervisory roles; remove effective teachers from the classroom to coach other teachers; evaluate teachers using measures of student learning gains; and change salary schedules to support differential compensation. Both the National Education Association (NEA) and American Federation of Teachers (AFT) have recently released policy positions that support significant changes to the teaching profession designed to address the challenges of the 21st century global economy and establish an education system and teaching profession prepared to meet those challenges.

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[29] http://www.nbpts.org/national-board-certification

[30] http://www.teacherleaderstandards.org/teacher_leadership_exploratory_consortium

[31] http://www.ksde.org/

In 2011, the Commission on Effective Teachers and Teaching (CETT)—a task force convened by the NEA to establish recommendations to advance and promote teacher effectiveness and the teaching profession—released its report (CETT, 2011). Subsequently, in December 2011, NEA President Dennis Van Roekel released his response to those recommendations, stating, "With the receipt of the CETT report, NEA reached a tipping point that will alter our course. Reflecting the desires of our members and state leadership, I am setting as NEA's guiding star the advancement of a profession of teaching that centers on the success of students" (National Education Association, 2011, p. 3). These specific actions include: (1) raising the bar for entry into the profession; (2) ensuring great teaching by creating a profession with career choices and professional accountability; and (3) providing union leadership to transform the profession.

The American Federation of Teachers (AFT) has also released its recommendations for the teaching profession, many of which are aligned with the NEA's proposals. These include (1) ensuring that teacher preparation standards, programs and assessments are aligned with a well-grounded system of effective teaching; (2) establishing a universal assessment process for entry into the profession; and (3) assigning primary responsibility for setting and enforcing the standards of the profession with members of the profession—practicing professionals in K-12 and higher education. While acknowledging that the charge of the task force was initial teacher preparation, the report also noted, "As a classroom teacher's career progresses, opportunities should be available for differentiated roles and responsibilities that link student and school-system needs with educators' professional and personal goals" (AFT, 2012, p. 13). The report also endorsed locally designed and negotiated "career ladders" as a means to improve teacher retention, performance and morale.

As noted earlier, evidence that teachers unions/education associations are successfully working to modify teaching contracts to reflect these new priorities are found in St. Francis, Minnesota (an AFT affiliate) and California's San Juan Unified School District (an NEA affiliate), both of which promote teacher leadership roles with differential pay (NCTQ, 2010).

Part C. Overview of State-based Initiatives

A crucial component of the research contributing to this report's forthcoming recommendations was an investigation of state-based policies and initiatives related to recognizing and promoting teacher leadership, as well as teacher career advancement initiatives in local districts. These may include tiered teacher licensure systems that include "master" or advanced level status, teacher leader/master teacher endorsements or designations, the development of continuums of teaching practice that distinguish the competencies of teachers throughout their careers, and more comprehensive teacher career advancement initiatives. Appendix A provides a 50-state matrix of state-based initiatives identified through web-based searches and interviews with state education department and/or state professional standards board commission personnel between February and May 2013.

The following summarizes state-based efforts to promote teacher leadership through a variety of approaches.

Only two states and one jurisdiction currently have comprehensive teacher career initiatives:

Currently in effect: Arizona, District of Columbia, Iowa[32]

Proposed: Georgia, Missouri, New York

Comments/trends: Arizona's system is being phased out; DC LIFT is in its first year of implementation (2012-13). Proposed plans by Georgia, Missouri, and New York are part of these states' Race to the Top initiatives.

Twenty states currently have multi-tiered certification systems with tiers for advanced or master teachers

Currently in effect: Alabama, Alaska, Colorado, Delaware, Indiana, Iowa, Kansas, Maine, Maryland, Michigan, Nebraska, New Hampshire, North Dakota, Ohio, Rhode Island, South Carolina, Utah, Virginia, Washington, Wisconsin

Proposed: New York, Georgia

Comments/trends: The majority of states with "advanced" or "master teacher" levels use these designations to recognize National Board-certified teachers. These designations are often voluntary and districts have discretion whether to require these designations for teachers in leadership roles.

Eight[33] states currently have certification endorsements related to teacher leadership (e.g., teacher leader, instructional facilitator)

Currently in effect: Arkansas, Georgia, Idaho, Kansas, Kentucky, Louisiana, Virginia, Wyoming

Proposed: Connecticut, Illinois, Mississippi, Missouri, New Jersey, Oregon, Utah, Vermont

Comments/trends: Requirements and standards to achieve these designations differ widely, and no states make them required in order to serve in a teacher leadership role.

Three states currently have "designations" for master teachers

Currently in effect: Connecticut, Missouri, Wyoming

Comments/trends: These are the result of legislative actions, not codified in certification regulations.

Four states have adopted Continuums of Teaching Practice Rubrics

Currently in effect: Alabama, California, Missouri, North Carolina

Proposed: Uncertain, although states participating in the Multi-State Consortium (Arkansas, Kansas, South Dakota, Utah, West Virginia) may adopt some form of the model standards.

Comments: These continuums of teaching practice are used to develop a vision and common language of the various stages of teaching effectiveness with some states incorporating them in to teacher evaluation or induction, masters degree programs for teacher leaders, or professional development guidelines.

One state has adopted policies for and nine states are exploring the development of teacher licensing systems linked to teacher effectiveness

Currently in effect: Tennessee

Proposed (or under discussion): Colorado, Michigan, Missouri, New Mexico, Pennsylvania, Rhode Island, South Carolina, Utah, Wisconsin

Comments/trends: These proposal are outgrowths of states seeking eligibility for Race to the Top grants and/or waiver of No Child Left Behind (NCLB) requirements that require the development of teacher evaluation systems measuring teacher effectiveness using student achievement gains and studies indicating the weak connection between degrees/years of experience to effectiveness.

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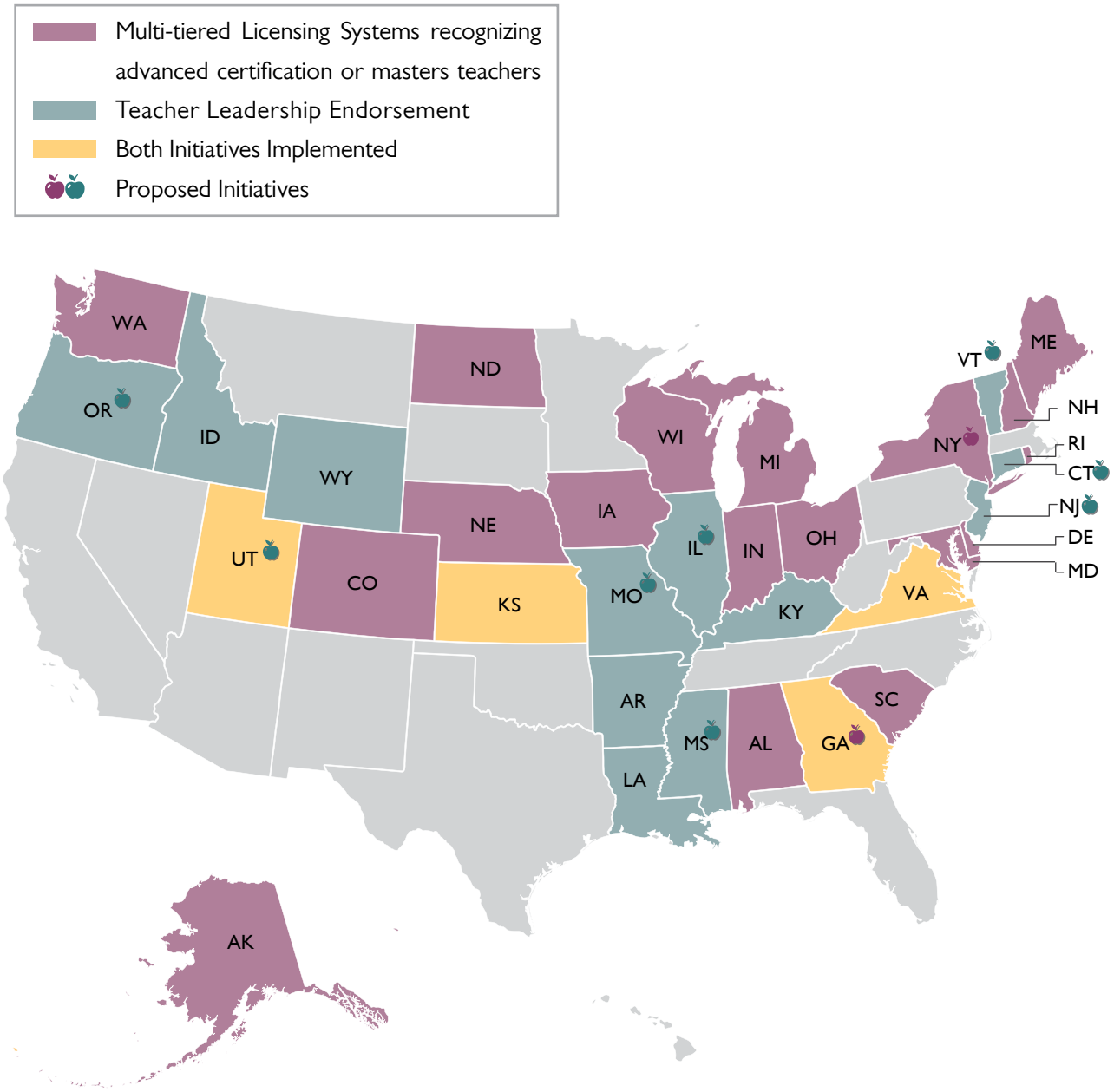
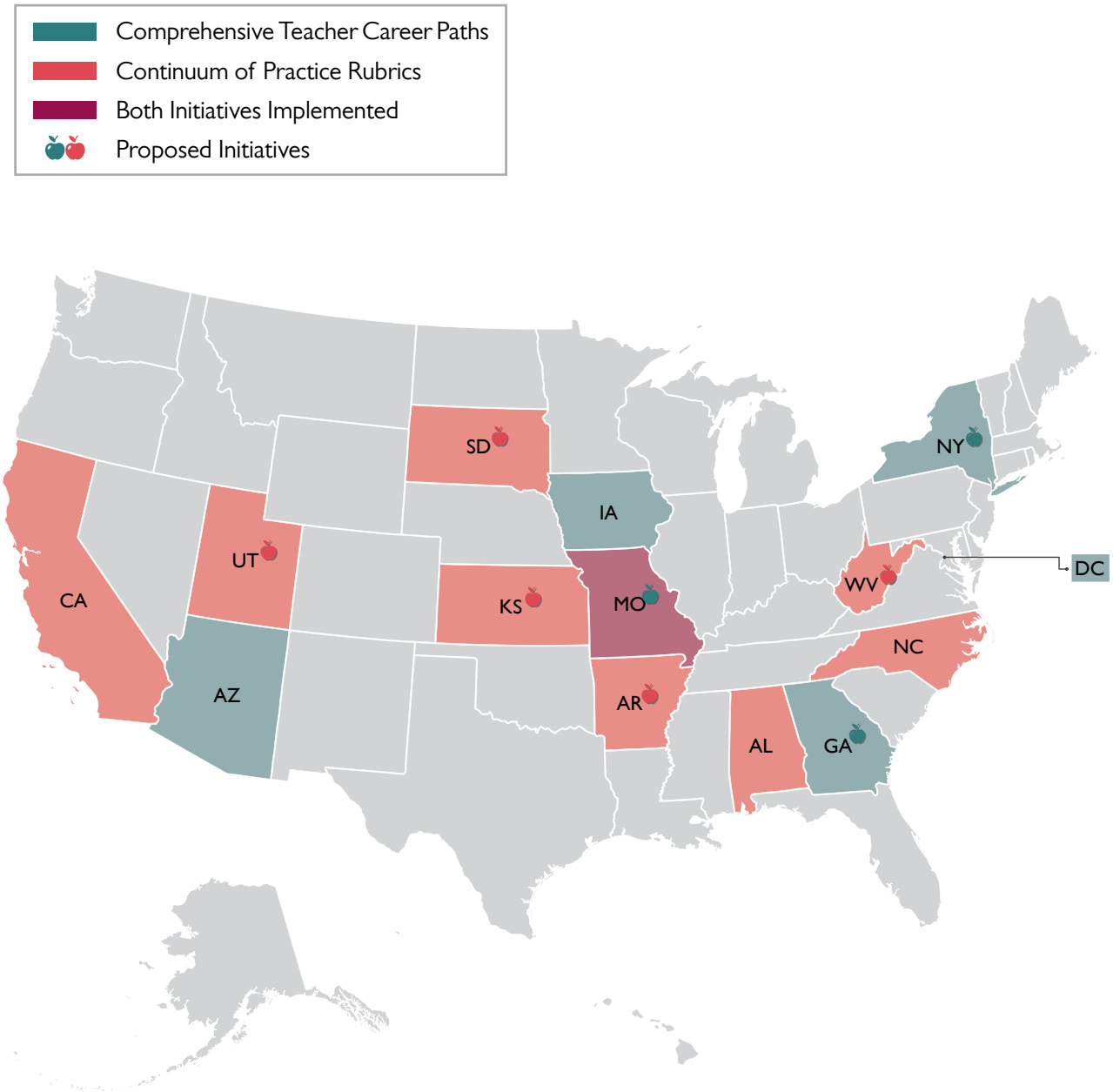
[32]Passed the Iowa General Assembly on May 22, 2013

[33]The New Jersey Assembly passed a bill implementing a teacher leader endorsement on May 23, 2013 and it is expected to be approved by the Senate.

STATES/JURISDICTIONS WITH CURRENT AND PROPOSED INITIATIVES PROMOTING TEACHER LEADERSHIP



STATES/JURISDICTIONS WITH CURRENT AND PROPOSED INITIATIVES PROMOTING TEACHER LEADERSHIP



Two states are implementing state-mandated compensation systems designed to reflect teacher effectiveness and teachers in leadership roles

Currently in effect: Indiana, Tennessee

Comments/trends: States characterized by having cultures of local control and strong teachers unions are less likely to be able to adopt such systems at the state level.

Four states have introduced new teacher leader roles related to assisting teachers in adopting the Common Core Standards at the local district level

Currently in effect: Louisiana, Maryland, Tennessee and West Virginia

Comments/trends: Teacher leaders are selected at the state level and trained to lead collaborative efforts in districts to implement the Common Core Standards.

Although there are currently few comprehensive teacher career advancement models at the state level, many of the building blocks for such initiatives are emerging. The large number of proposed initiatives shows that more opportunities are emerging to identify highly effective teachers and develop statewide policies that facilitate placing these teachers in leadership roles. Federally-based initiatives like Race to the Top and the Teacher Incentive Fund combined with widely-acclaimed models such as the TAP System are helping to build state and local capacity to experiment with alternative compensation systems and roles for teachers. The next section presents recommendations to further promote career pathways for teachers.

*Although there are currently few comprehensive teacher career advancement models at the state level, **many of the building blocks for such initiatives are emerging**.*

PART VI. Defining The Conditions Necessary To Create Comprehensive Teacher Career Pathways

It is evident that schools, school culture, and school staffing structures will need to change to adapt to the realities of a 21st century educator labor force and the imperative to make the U.S. educational system more globally competitive. The lessons learned in the past 30 years in experimenting with differentiated staffing models, career ladders, teacher leadership initiatives, and merit pay are that these initiatives cannot be implemented in a piecemeal fashion or operate in isolation of school district student learning goals or the predominant school culture. They must be sustainable, both politically and fiscally. They must address the bigger and more complex issues of establishing valid and reliable measures of teacher effectiveness to identify teacher talent in our schools. New staffing structures are needed that "extend the reach" of highly effective educators and address the career aspirations of a new generation of teachers who want to be leaders from the classroom. Most importantly, there needs to be evidence that re-structuring school staffing and the career trajectories of teachers produces desired student achievement gains. This is a big task, and will require cooperation and collaboration between local, state, and federal governments, researchers, as well as partnerships with teachers' unions and private sector organizations which are working to develop and disseminate new models of teacher career options.

The following is a preliminary set of recommendations to create the conditions necessary to create sustainable teacher career pathways. A more comprehensive set of recommendations will follow the second phase of this work, which involves on-site case studies of schools and districts with established career advancement initiatives, out of which we will develop a model for teacher career advancement. Research conducted to date produces some important recommendations for national and state policy-makers, as well as districts interested in developing more robust systems to identify highly effective teachers, deploy them in leadership roles, compensate them in ways that recognize their expertise and contribution to the achievement of students, and retain them in the profession by offering leadership opportunities without leaving the classroom.

The overarching goals of a teacher career advancement continuum is to ensure consistent access by all students to excellent teachers and teaching teams, create the conditions for advancing student learning for all students, increase the effectiveness of all teachers, and to retain the most effective and talented teachers. To that end, we recommend the following:

At the state and national level:

- advocate for federal and state legislation and grant programs that support new school staffing structures and leadership roles for teachers as well as advance teacher career paths;
- establish policies that encourage higher education institutions to match the supply of prospective educators to demand and increase the selectivity of admissions policies to undergraduate and graduate programs for educators;
- encourage the removal of barriers to the mobility of teachers between districts and states as well as between careers inside and outside of education by re-structuring teacher pension systems and making them more portable;
- encourage states to incorporate structures for teacher leadership roles into state licensure systems, and districts to recognize and deploy teachers in leadership positions and differentiated roles with appropriate credentials;
- implement at the state level guidelines for standards-based assessment and teacher evaluation systems that create the groundwork for differentiated career paths and compensation systems; and
- develop and disseminate model teacher career continuums with input from excellent teachers as well as other stakeholders in the design, implementation, communication and refinement of the model.

At the local/school level:

- re-examine district human resource policies to see if they are effective in recruiting teachers who are high academic achievers; identify and manage talent; and provide diverse and flexible career options as part of retaining "high achievers;"

- re-think the one teacher/one classroom organization of schools to facilitate new staffing structures that differentiate roles of teachers and extend the reach of highly effective teachers;
- re-structure time, space, scheduling, and other support structures within schools to ensure all teachers have opportunities for collaboration, peer learning, and sharing of practice;
- implement shared leadership and collaborative structures between principals/administrators and teachers/teacher leaders, and encourage decision-making at lower levels of the organization with substantive teacher input;
- encourage collective responsibility by teachers for the success of their colleagues by promoting peer coaching and peer input into teacher evaluation.

Structure time, space, scheduling, and other support structures within schools to ensure all teachers have opportunities for collaboration.

- implement fair, rigorous, and meaningful evaluation systems to identify highly effective teachers who are potential candidates for enhanced leadership roles;
- recognize and reward high performance in the classroom as well as teamwork and collaboration through new innovative compensation systems;
- encourage highly effective teachers to assume formal or informal leadership roles;
- de-emphasize seniority in the assignment of teachers to leadership roles and identify highly effective teachers regardless of years of experience;
- implement flexible job structures that recognize the life and career cycles of teachers, such as sabbaticals, job-sharing, and part-time work;
- take advantage of technology in extending the reach of highly effective teachers through blended learning structures and promoting teacher collaboration and professional development through social media and other technological tools;
- ensure union support and collaboration in putting teacher leadership and career structures in place; and
- develop sustainable systems for teacher career advancement that are not dependent on one-time grants or discretionary state or federal funding streams.

The challenges to re-structure the teaching profession can seem daunting, but the returns to investing in sustainable teacher career pathways are incalculable if this strategy results in attracting the "best and brightest" into the profession, retaining the most effective teachers in classrooms and schools, creating more successful schools and producing sustained student learning gains. Policy makers, educators, and the public have few alternatives if we expect our schools and students to be competitive in the global economy of the 21st century.

Appendix A: State Career Continuum

State	Comprehensive Teacher Career Path Initiatives	Tiered licensing systems recognizing advanced certification or teacher leadership endorsements/ designations[1]	Continuums of Practice Rubrics	Other Teacher Leadership Initiatives/ Additional Information[2]
Alabama		Bachelor's Professional Educator Certificate Master's Professional Teacher License Sixth Year Professional Teacher License	Alabama Continuum of teaching practice (emerging, applying, integrating, innovating)	The Alabama Continuum evolved out of efforts to develop a comprehensive teacher evaluation system reflecting the complexity of teaching. Indicators at the "integrating" and "innovating" levels reflect the sphere of influence of the teacher (i.e. leadership traits). Currently, Alabama is developing a masters program at the education specialist level to reflect national teacher leader standards. Completion of such a program may be a future requirement to serve as a teacher leader.
Alaska		Provisional (5 years) Regular (5 years) Advanced (term of NBPTS)		The Master teacher certificate is available for NBPTS-certified teachers. There is no statewide initiative to link master teacher certification to a career advancement initiative. However, some master teachers are selected to become part of the Alaska statewide mentorship program in rural areas in which experienced teachers fly out monthly to mentor new teachers and receive compensation from the state.
Arizona	Arizona Career Ladder (eff. 1985)[3]	Master teacher designation for teachers to serve as mentors and coaches in districts in partnership with Arizona K12 Center (not administered by AZ DOE nor part of certification)		This is the only remaining statewide career ladder program. As of 2010, legislation was introduced to phase out the program by 2014-15 school year, following a lawsuit and state funding crisis. Currently, 28 districts participate and represent 30% of Arizona teachers and students. Career ladder teachers volunteer to participate in higher-level instructional responsibilities with a separate pay scale ladder.
Arkansas		Instructional facilitator endorsement (requires passing of multiple choice test)	Member of the Multi-State Consortium that developed a model Continuum of Teaching Practice	The instructional facilitator endorsement is for instructional coaches in reading and math. The endorsement is voluntary.

[1]Information on tiered licensing systems originated with the ECS database (http://mb2.ecs.org/reports/reportTQ.aspx?id=1137) and has been subsequently verified through state web-site review and/or interviews with state department of education or professional standards board personnel.
[2]Sources for this information, unless otherwise noted, are from interviews with state department of education or state professional standards board personnel.
[3]http://www.azed.gov/highly-qualified-professionals/arizona-career-ladder/

State	Comprehensive Teacher Career Path Initiatives	Tiered licensing systems recognizing advanced certification or teacher leadership endorsements/ designations[1]	Continuums of Practice Rubrics	Other Teacher Leadership Initiatives/ Additional Information[2]
California			California Continuum of Teaching Practice (CCTP)[4]	The CCTP is an outgrowth of the California Beginning Teacher Support and Assessment Program and was developed for purposes of self-reflection, inquiry, and use in induction. The CA Commission on Teacher Credentialing has convened a Teacher Preparation Advisory Panel[5] to make recommendations on teacher credentialing and professional development. The CA Department of Public Instruction Task Force on Educator Excellence "Greatness by Design"[6] report is intended to guide local districts in implementing state guidelines for teacher evaluation, professional growth plans, peer assistance review programs, and teacher leadership to be aligned with the CCTP. The CA Department of Education is developing "toolkits" to provide models to assist school districts in implementing these guidelines. California is a local control state, and districts are given flexibility to tailor programs to local needs.
Colorado		Provisional license (3 years) Standard license (5 years) Master Teacher Certificate (evidence-based eligibility through NBPTS certification) (7 years)		Colorado offers a master teacher certificate, for which NBPTS certification is required. The master teacher designation is added to the professional license and extends its duration from 5 to 7 years. Colorado is considering legislation to tie teacher licensing to teacher effectiveness ratings rather than a career continuum.
Connecticut		Initial, provisional, and professional; completion of TEAM required to progress to provisional license; teacher leader endorsement proposed; Distinguished educator designation effective July 1, 2012[7]		Specific teacher leader endorsements are currently proposed but not yet approved: literacy specialist, intervention specialist, department chair, mathematics specialist, science specialist, and teacher leader (generalist),with coursework to be applied towards administrator endorsement. There are no guidelines yet issued for the distinguished educator endorsement (pending finalizing of state teacher evaluation system).
Delaware		Initial (3 years) Continuing (5 years) Advanced licensure: requires NBPTS certification (10 years)		Currently, there is an advisory committee working on policies to develop teacher leadership roles and associated compensation (report due in July 2013). Funding is through the Race to the Top (RTT) grant.
District of Columbia	DC LIFT Program[8]			DC LIFT is a career ladder initiative recently implemented that combines pay-for-performance linked to a new evaluation system, a five-rung career ladder, and opportunities for teachers to apply for a broad array of leadership positions.

[4]http://www.btsa.ca.gov/resources-files/Final-Continuum-of-Teaching-Practice.pdf
[5]http://www.ctc.ca.gov/commission/agendas/2013-01/2013-01-4F.pdf
[6]http://www.cde.ca.gov/eo/in/documents/greatnessfinal.pdf
[7]http://www.cga.ct.gov/2012/rpt/2012-R-0198.html
[8]http://dc.gov/DCPS/In+the+Classroom/Ensuring+Teacher+Success/Leadership+Initiative+For+Teachers+(LIFT)

State	Comprehensive Teacher Career Path Initiatives	Tiered licensing systems recognizing advanced certification or teacher leadership endorsements/ designations[1]	Continuums of Practice Rubrics	Other Teacher Leadership Initiatives/ Additional Information[2]
Florida				Recipient of Phase II RTT grant, which includes development of teacher leader initiatives. 65 of 72 participating districts are developing new staffing plans that offer pathways for teacher leaders. The Florida Department of Education is currently examining certification endorsements and training opportunities for teacher leaders.
Georgia	RTT is funding the development of a two-tiered licensure system and career ladder for participating districts[9]	Master teacher certification effective in 2013		The Georgia Professional Standards Commission and Department of Education are convening a Task Force to create a state-wide multi-tiered certification (including master teacher and teacher leader designations) system and career continuum (no funding beyond current RTT grant).
Hawaii				Hawaii is a RTT state. A Teacher Leader Academy was established in 2006, and is now federally funded. The Academy is designed to build a pipelines into school leadership and improve leadership skills. A Teacher Leader workgroup has recently been convened to help design the Hawaii Effective Educator System.
Idaho		Consulting teacher/teacher leader endorsement effective in 2013.		A 2012 referendum repealed Students Come First legislation, thereby eliminating "leadership awards" for teachers assuming leadership roles or attaining NBPTS certification. However, legislative approval in 2013 session given for adoption of Idaho teacher leader standards and a consulting teacher/teacher leader endorsement. Work is continuing to design a more comprehensive teacher career continuum that is performance-based and promotes teacher leadership roles with released time and/or pay increases.
Illinois		Teacher leader endorsement proposed.		Illinois has replaced its multiple-tiered licensure system (initial, standard, and master teacher) in 2013 with an Initial and Professional Educator License, to which multiple endorsements may be added (e.g., National Board Certification, administrative, and school service personnel). Illinois is currently developing requirements for a teacher leadership endorsement in partnership with higher education programs.
Indiana		Initial (2 years) Professional (5 years) Accomplished Practitioner (voluntary—10 years)		The Accomplished Practitioner license requires a masters degree and experience. In 2011, Indiana changed laws requiring compensation to limit the impact of experience and degrees and include the results of performance evaluations, assignment of leadership roles and the academic needs of students.[10] Many districts are now developing new contracts for compensation that recognize teacher leadership roles.

[9]http://www.doe.k12.ga.us/School-Improvement/Teacher-and-Leader-Effectiveness/Documents/GA%20Career%20Ladder.pdf
[10]Indiana Code 20-28-9-1 amended by P.L. 229-2011

State	Comprehensive Teacher Career Path Initiatives	Tiered licensing systems recognizing advanced certification or teacher leadership endorsements/ designations[1]	Continuums of Practice Rubrics	Other Teacher Leadership Initiatives/ Additional Information[2]
Iowa	Teacher Advancement Plan enacted, including teacher leadership pathways program to allow skilled teachers to receive pay increases for taking on leadership positions.	Initial license (2 years) Standard license (5 years)—requires completion of mentoring and induction program Master license (5 years)		Governor Branstad's Task Force report on the Teacher Advancement Plan was released in October 2012[11] and was passed on May 22, 2013. Funding is expected to come out of the $800 million state government budget surplus, with est. $160 million annual estimated cost.
Kansas		Conditional (2 years) Initial upon successful completion of teaching performance assessment (5 years) Accomplished (NBPTS) (10 years) Teacher leader-license with teacher leader assessment	Lead state in the Multi-State Consortium that developed a model Continuum of Teaching Practice	The teacher leader assessment (Kansas T-Lead) is still in pilot.[12] Currently, the teacher leader endorsement can be obtained through successful completion of the T-Lead assessment pilot without completion of a preparation program, but that provision will "sunset" soon. The goal is to create a career ladder for teachers with incentives or salary stipends and to link the teacher leader endorsement with corresponding teacher roles.
Kentucky		Teacher leader endorsement		Kentucky requires all teachers to complete a masters' degree within 10 years of certification. Masters degree program requirements were re-vamped to address increasing teacher capacity to serve in leadership roles in schools. The teacher leader endorsement can be earned outside of program, but the plan is to link them together for the future.
Louisiana		Teacher leader endorsement		The teacher leader endorsement is optional based on university coursework and a field-based experience. *Louisiana Teacher Leaders*[13] is a new program to recruit 2000 exemplary teachers to lead collaborate efforts in schools related to implementation of Common Core State Standards. Louisiana also supports districts' adoption of the TAP System model to advance teacher leadership in local contexts.
Maine		Provisional cert. (2 years) Professional cert (5 years) Master cert (5 years)		The Master certificate requires evidence of contributions to the teaching profession such as NBPTS certification or a positive recommendation of successful completion of an action plan from the certification support system. Few master certificates have been issued.
Maryland		Standard professional cert I (5 years) Standard professional cert II (5 years) Advanced professional certificate (5 years) with NBPTS qualifying Math instructional leader certificate (new)		A new math instructional leader certificate has been created for teachers who take on leadership roles in math at the elementary and middle school level. Plans are to develop a STEM instructional leader certificate (development funded through RTT). New Common Core Standards teacher effectiveness academies are training school-based teams of teachers led by master teachers.

[11]http://educateiowa.gov/index.php?option=com_content&view=article&id=2804%3Abranstad-reynolds-glass-propose-reforms-to-ensure-great-teaching-in-every-classroom-to-dramatically-raise-achievement&catid=242%3Anews-releases&Itemid=2717

[12]http://www.ksde.org/Default.aspx?alias=www.ksde.org/teacherleader

[13]http://www.louisianabelieves.com/resources/classroom-support-toolbox/district-support-toolbox/school-teacher-collaboration

State	Comprehensive Teacher Career Path Initiatives	Tiered licensing systems recognizing advanced certification or teacher leadership endorsements/ designations[1]	Continuums of Practice Rubrics	Other Teacher Leadership Initiatives/ Additional Information[2]
Massachusetts				There are no statewide teacher leadership or career advancement initiatives; however, the state is overseeing district-based efforts to promote differentiated roles for teachers underway in Lawrence (TIF grant site), Boston and Fall River (T3: Teacher Turnaround Program) funded by state turnaround grants, and "Human Resources Pilot Project" in Attleboro, Brockton, and Revere.
Michigan		3-tier licensing proposal, advanced professional certification effective 9/2013		The Advanced Professional Education Certification requires completing the NBPTS process or teacher leader training program and have 5 years of highly effective ratings. The program has been in effect for only one year; and will take three more years to implement. Michigan is also working on teacher leadership standards.
Minnesota				The Alternative Teacher Performance Pay System (ATPPS) initiative[14] supports redesigned pay for differentiated roles and responsibilities (optional for districts). The St. Francis School District has implemented a model of a comprehensive teacher career continuum initiative.
Mississippi				The Subcommittee of the Commission on Teacher and Administrator Education, Certification and Licensure and Development will be meeting in summer 2013 to examine a license for teacher leaders and discuss strategies to promote teacher leadership. The state's Teacher Incentive Fund grant districts are piloting teacher advancement pathways (e.g., positions for mentor and master teachers) as part of the grant.
Missouri	Missouri Advisory Committee for the Certification of Educators is currently developing educator standards, quality indicators, and a professional educator continuum.	The "distinguished teacher" designation on the Missouri Professional Continuum is providing a foundation for a proposed teacher leader endorsement.	Member of the Multi-State Consortium that developed a model Continuum of Teaching Practice. Adopted a Professional Continuum of New, Developing, Proficient, and Distinguished Teacher competencies.[15]	The Professional Continuum of the Missouri Teacher is not necessarily connected to a teacher's years in the classroom, but recognizes strengths of any teacher. Policies are in effect or proposed to promote teacher leader roles/differentiated staffing for those attaining distinguished teacher designations connected to a new teacher evaluation system currently under development. Missouri teacher standards have been informed by the state's membership in the Multi-State Consortium.
Montana				There are currently no state-level initiatives promoting teachers in leadership roles.
Nebraska		3-tiered licensing: initial cert (3 years) standard cert (7 years) professional cert (10 years)		The professional teaching certificate requires a masters, 6th year or doctorate degree, or NBPTS certification. The professional certificate is voluntary. Any teacher leadership initiatives are at the discretion of the district. Nebraska is currently working on a model teacher/principal evaluation process, which could lead to a teacher leader/ master teacher endorsement.

[14]http://www.cecr.ed.gov/map/map.cfm?id=40

[15]http://dese.mo.gov/eq/documents/StandardsInformationDocument.pdf

State	Comprehensive Teacher Career Path Initiatives	Tiered licensing systems recognizing advanced certification or teacher leadership endorsements/ designations[1]	Continuums of Practice Rubrics	Other Teacher Leadership Initiatives/ Additional Information[2]
Nevada				There are no state-level teacher leadership/career advancement initiatives. Nevada is currently working on a new teacher evaluation system.
New Hampshire		Beginning educator (3 years) Experienced educator 3 years) Master teacher (3 years)		The master teacher certificate has been in effect for 10 years, but no teacher has applied for it. It is still under development.
New Jersey		Teacher leader endorsement pending in state legislature (2013)		Gov. Christie has designated as a priority the creation of new credentials (master teacher) and career ladders for teachers. Legislation for a teacher leadership endorsement based on Teacher Leader Exploratory Consortium standards was adopted by the New Jersey Assembly on May 22, 2013 and is expected to pass the Senate. Newark recently adopted a teacher contract with salary bonuses for teachers in hard-to-staff schools and for performance.
New Mexico		A tiered licensure system was implemented in 2003 with 3 teacher classifications (provisional, professional, master) tied to minimum salary levels; Completion of a "professional development dossier"[16] is required to advance		The current licensing system is under review. The New Mexico Effective Teaching Task Force[17] recommended that teacher effectiveness should be incorporated into the state's licensure system; compensation and advancement system should be modified to recognize the most effective teachers, new recruits should be attracted to the field of teaching, and greater use of instructional leaders should be encouraged with responsibilities such as mentoring, curriculum development, and peer intervention.
New York	Under the state's RTT plan, New York will create and implement by 2014 a teacher career continuum system with certification requirements that offer designations to teachers serving as master teachers and teacher leaders.			Rochester and several other districts have worked on their own models of a career continuum initiative separate from the RTT initiative.
North Carolina			A revised teacher evaluation system has a 5-stage rubric, and efforts are underway to incorporate a teacher leader/teacher coaching rubric into the evaluation system.	North Carolina has been a leader in promoting NBPTS certification and leads the nation in the number of National Board Certified teachers, who qualify for a 12% salary increase (teachers with masters degrees get a 10% salary increase). Local districts will determine which roles fit the parameters of the teacher leader standards proposed in the new teacher evaluation system.
North Dakota		Initial (2 years) Regular (5 years) Life (for teachers with 30 years of experience or NBPTS certification)		A state-funded mentoring program provides opportunities for teachers to serve in a leadership role.

[16]http://teachnm.org/uploads/docs/pdd-guidelines.pdf

[17]http://educateiowa.gov/index.php?option=com_content&view=article&id=2804%3Abranstad-reynolds-glass-propose-reforms-to-ensure-great-teaching-in-every-classroom-to-dramatically-raise-achievement&catid=242%3Anews-releases&Itemid=2717

State	Comprehensive Teacher Career Path Initiatives	Tiered licensing systems recognizing advanced certification or teacher leadership endorsements/ designations[1]	Continuums of Practice Rubrics	Other Teacher Leadership Initiatives/ Additional Information[2]
Ohio		Three tiered licensure: Initial Professional Senior professional Plus Master Teacher License		The Master teacher license is linked to the senior professional educator license (requiring a masters degree, 9 years of teaching experience, but the master teacher designation is made by a local committee using trained master teacher scorers and state rubric). This is optional, and no state funding for compensation is provided. It is at the discretion of the district whether the master teacher license is required for mentors or department chairs, and no data is collected at state level. RTT includes funding for model alternative compensation plans (only 4 participating districts).
Oklahoma				The Education Leadership Oklahoma (ELO) Committee provides financial support for teachers seeking NBPTS certification. The Office of Educational Quality and Accountability has been newly established to oversee pre-service education, licensing testing, and licensure policy. The Office is expected to discuss the creation of a new professional category between principal and teacher.
Oregon				A proposal for a teacher leader license is currently under consideration in the 2013 legislative session.[18] A task force has been convened to comprehensively re-examine Oregon's licensure structure, including recognition of a potential "master teacher" license, with recommendations likely to be presented in 2015.
Pennsylvania				Pennsylvania has been working on an educator effectiveness project,[19] linked to the implementation of a new teacher evaluation system. The expectation is that teachers will be identified through the new teacher effectiveness system to become teacher leaders at the local level. Pennsylvania did develop leadership standards for administrators and teachers, but no further action was taken. Pittsburgh is developing a teacher leadership system funded through the Gates Foundation.
Rhode Island		Initial Professional Advanced Teacher leader certificate in regulation (not yet in effect)		In connection with the RTT grant, a three-tiered certification system is proposed, with progression based on the evaluation of effectiveness. The goal is for teachers achieving advanced certification to be given specific leadership roles in the district.
South Carolina		Initial (3 years) Professional (5 years)—with successive levels-BA plus 18, master's, specialist, doctorate		The state's vision is to align different levels of professional certification to differentiate and recognize expertise and teacher roles with possible differential compensation. Plans are to design a teacher leadership academy beginning in the summer of 2014. The new state evaluation system will be designed to distinguish highly effective teachers and to link this to career paths. South Carolina is a TAP System state, and is adapting the TAP System model for use in different contexts.

[18]http://www.leg.state.or.us/13reg/measpdf/hb3200.dir/hb3254.intro.pdf

[19]http://www.portal.state.pa.us/portal/server.pt/community/educator_effectiveness_project/20903

State	Comprehensive Teacher Career Path Initiatives	Tiered licensing systems recognizing advanced certification or teacher leadership endorsements/ designations[1]	Continuums of Practice Rubrics	Other Teacher Leadership Initiatives/ Additional Information[2]
South Dakota			Member of the Multi-State Consortium that developed a model Continuum of Teaching Practice.	A Commission on Teaching and Learning representing a broad array of stakeholder groups has been convened to complete the development of the state's new teacher evaluation system, which is designed to identify effective teachers and support educator growth and development. In the future, it is anticipated the Commission will build on that work to address teacher career paths.
Tennessee				The State Board has recently approved (1) new guidelines for the state's minimum salary structures, which districts must implement and (2) a new licensure structure with a performance-based advancement and renewal structure.[20] The state's minimum salary structure has been re-designed to give districts flexibility and free up funds to compensate teachers in different leadership roles. "Educator Leader Cadres" have been established to train teacher coaches/trainers to help their peers implement the Common Core State Standards. Tennessee supports the implementation of TAP System initiatives in districts.
Texas				The Texas teacher evaluation system is currently under revision with several bills pending in legislature. The goal is to create an evaluation system similar to the TAP System model that will add prestige to the profession and promote teacher leadership opportunities. Educate Texas[21]—a public-private partnership—has made recommendations to the Texas Teaching Commission regarding the need to retain top teaching talent. Districts such as Austin, Dallas/Ft. Worth, Grand Prairie and Houston are engaged in efforts to promote teachers in leadership roles.
Utah		Level 1 (3 years) Level 2 (5 years) Level 3 (7 years)	Member of the Multi-State Consortium that developed a model Continuum of Teaching Practice.	Level 3 issued to those with NBPTS certification or a doctorate in field of practice. Although the function of the Level III license not linked to leadership roles, teachers with NBPTS certification often going into teacher leadership roles. Utah is in the process of developing a teacher leader license or endorsement as well as developing a teacher career continuum, which incorporates the state's new teacher evaluation system.
Vermont				The Task Force on Teacher and Leader Effectiveness approved new teacher/leader evaluation guidelines in June 2012. The Task force is now developing a model, which could include "peer assistance review." The Vermont Standards Board for Professional Educators is considering the development of a teacher leader endorsement.

[20]http://state.tn.us/education/lic/doc/SBE_5-502.pdf

[21]http://www.edtx.org/human-capital-strategies/teaching-commission/
http://www.edtx.org/human-capital-strategies/teaching-commission/research-briefs

State	Comprehensive Teacher Career Path Initiatives	Tiered licensing systems recognizing advanced certification or teacher leadership endorsements/ designations[1]	Continuums of Practice Rubrics	Other Teacher Leadership Initiatives/ Additional Information[2]
Virginia		Two licenses: Collegiate professional (for undergraduate degree) Post graduate professional (masters or higher) Designations for career paths added to license: Career teacher Mentor teacher Leader (for NBPTS certification or recommendation by superintendent)		The Strategic Compensation Grant Initiative was effective in 2013. This competitive grant for school divisions allows teachers or groups of teachers to be compensated for supporting students to make academic progress, incentivizing team performance to meet goals, providing rewards for mentors, and rewarding teachers with expertise for serving in low-performing or hard-to-staff schools or in critical shortage areas. Teachers with NBPTS certification earn $5,000 in first year, then $2,500 for the life of the certificate.
Washington		Residency Cert. (2 years with 5 year renewal) Professional certificate (5 years). Specialty endorsements such as gifted education or elementary math issued.		Washington has a performance-based certification continuum (edTPA, Pro Teach and NBPTS certification), components of which could lead to a career continuum. A 2010 WPSB report to legislature asked for clarification regarding the linkage of certification to differentiated roles.[22] Teachers in Special Assignment (TOSA) roles have been encouraged at the district level, but the economic downturn has resulted in many teachers being returned to the classroom.
West Virginia			Member of the Multi-State Consortium that developed a model Continuum of Teaching Practice	Legislative rules regarding standards of practice for teacher leaders were adopted in July 2010. A subcommittee of the State Board ("High Quality Educators) is examining teacher professional development, teacher careers, and teacher salary structures. Educator Enhancement Academies (formerly teacher leader institutes) will train teacher leaders to implement the Common Core Standards in their districts.
Wisconsin		Initial license (3 years) Professional educator license (5 years) Master Educator License (voluntary 10 year renewable)		The Master Educator License requires NBPTS certification or completion of a WI Master Assessment Process (consisting of the review of professional development plan by a three-member team). There is no state-based implementation system. A proposal has been made to require that a master teacher be evaluated as highly effective (the evaluation system is still in development).
Wyoming		Instructional facilitator in legislation, but not in certification.		State funding is provided to districts to compensate teachers identified as coaches of teachers.

[22]www.pesb.wa.gov/publications/reports

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