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Professional Accountability for Improving Life, College, and Career Readiness

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Abstract: This article builds on Darling-Hammond, Wilhoit, and Pittenger's (2014) new paradigm on Accountability for College and Career Readiness by focusing on one of its three pillars—professional accountability. The article begins by offering a conceptual framework for professional accountability for improvement. Next, it highlights slices of four organizations whose improvements efforts serve as a model for professional accountability. Then the article provides an overview of what a complete system of professional accountability would require. The article ends with a narrative of a teacher's career in an imagined future where school, district, state, and federal contexts are designed and provide resources for a cohesive constellation of policies, programs, and practices that increase learning for children, adults and the entire system.

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Responsabilidad educativa profesional para mejorar la vida, preparación universitaria y profesional

Resumen: Este artículo se basa en el trabajo de Darling-Hammond, Wilhoit, y Pittenger y su propuesta de un nuevo paradigma de responsabilidad educativa para la preparación universitaria y profesional, centrándose en uno de sus tres pilares—responsabilidad profesional. Este artículo presenta un marco conceptual para entender la responsabilidad profesional. A continuación, se destacan los aportes de cuatro organizaciones cuyas mejoras sirven como modelo de responsabilidad profesional. A continuación, se presenta una visión general de lo que requeriría desarrollar un sistema completo de responsabilidad profesional. El artículo concluye con un relato imaginario de la carrera de una maestra en un futuro donde la escuela, el distrito, el estado y contextos federales están diseñados y proporcionan recursos para una lograr las políticas, programas y prácticas que aumenten el aprendizaje de niños, adultos y el sistema educativo en su totalidad.

Palabras clave: responsabilidad profesional; política educativa; profesores

Responsabilidade educativa profissional para melhorar a vida, os estudos universitários e as carreiras profissionais

Resumo: Este artigo é baseado no trabalho por Darling-Hammond, Wilhoit, e Pittenger e sua proposta de um novo paradigma de responsabilidade educacional para os estudos universitários e as carreiras profissionais, focando em um dos seus três pilares—a responsabilidade profissional. Este artigo apresenta uma estrutura conceitual para a compreensão da responsabilidade profissional. Depois destacamos as contribuições de quatro organizações cujas melhorias servem como um modelo de responsabilidade profissional. Na terceira parte do artigo se oferece uma visão geral do que exigiria desenvolver um sistema completo de responsabilidade profissional. O artigo conclui com uma narrativa imaginária da carreira de uma professora em um futuro onde as escolas, distritos, organizações estaduais e federais são projetadas para fornecer recursos para coordenar as políticas, programas e práticas para melhorar a aprendizagem para crianças, adultos e do sistema de ensino como um todo.

Palavras-chave: responsabilidade profissional; política educacional; professores

Introduction

“The 51st state wants students’ and teachers’ work to be focused on the kinds of knowledge and skills that will contribute to student success after graduation, developed in relevant and engaging ways.”

(Darling-Hammond & Wilhoit, 2014, p. 10)

Students are more likely to reach ambitious college, career, and life-ready standards within an accountability structure that supports learning for children, adults, as well as the entire system (Darling-Hammond, Wilhoit, & Pittenger, 2014). In such an accountability system, targeted investments enable the conditions that facilitate students leaving the K-12 system prepared to pursue a future of their own choosing. What, however, are possible approaches needed to ensure teachers have the knowledge and skills required to support students to achieve their dreams?

In this article we address that question in four ways. First, we provide a conceptual framework for a model of professional accountability for improvement. Second, we describe

particular slices of the work of four organizations that show what such a model can look like in particular contexts. Third, we offer an overview of what a complete system of professional accountability for improvement would require. Finally, we offer the career of a teacher in an imagined future where school, district, state, and federal contexts are designed and provide resources for a cohesive constellation of policies, programs, and practices that increase learning for children, adults and the entire system.

Professional Accountability for Improvement

Professional accountability for improvement is an ecosystem of policies and practices emanating from a consistent view of teaching/learning and a professional model of accountability for improvement. Briefly, the view of teaching and learning required is one that recognizes the wondrous but extraordinarily complex interactions within and between a teacher and the growth and development of students. Quality instruction rests upon a base of knowledge and skills about learners, about the subject matter to be taught and about teaching practices. More importantly, and more difficult, quality instruction requires the integration of knowledge and skills in these domains in the crucible of our classrooms: classrooms where each child is different in unique ways. Technocratic, one size fits all, approaches that fail to account for the diversity that enters each and every classroom daily condemn our children to failure. As any parent of more than one child can attest, the parenting behaviors that resulted in particular behaviors with the first child do not result in the same behaviors with the second child. If that is the case with children from the same gene pool and the same family environment, imagine the situation with 30 children in a classroom or over a million students in the city of New York. If students are to learn well, and continue to learn throughout their lives, their teachers must know them well; know the subject matter and skills they wish their students to learn; and know where and how to provide experiences for their students to meet them where they are, to support their growth through their pathway to achieving our societal goals and their individual dreams.

Professional Accountability for Improvement contains two orientations: Professional and Improvement. Improvement and Accountability are not in tension with each other but rather are symbiotic. Being a professional means living up to four commitments:

- A primary and inviolable commitment to the client (the children and families in the care of educators);
- A commitment to use the best of existing knowledge and practice in service of the client;
- A commitment to continually revising practice and creating new and better knowledge in service of the client; and,
- A commitment to take responsibility for the profession and the next generation of professionals.

An improvement oriented accountability system does much more than set goals, evaluate whether those goals have been met, and then mete out punishments and/or rewards. “Accountability is achieved only if ... policies and practices work both to provide an environment that is conducive to learner-centered practice and to identify and correct problems as they occur” (Darling-Hammond & Snyder, 1992, p. 27). An accountability system that is not oriented towards, nor support, improvement can be called many things, but successful is not one of them.

Improvement requires a model of accountability that includes six essential mutually interdependent elements.

- **Goals.** These could consist of the same goals that currently exist (e.g., student standards for college, career, and life readiness; goals for teaching as codified in the Interstate Teacher

Assessment and Support Consortium [InTASC] and National Board for Professional Teaching Standards [NBPTS]). It is likely, however, that the goals for our children, as well as for the adults who are charged with supporting their growth and development will evolve as more people become more knowledgeable about, and involved in, the democratic governance of public education.

- **Structures.** Structures are the methods of organization set up by an entity to meet its goals. For instance, a goal could be to improve the learning outcomes of children with identified disabilities. One structure to meet that goal would be the creation of an individual education plan and a conference with all the relevant stakeholders to approve that plan. Or a goal could be teacher collaboration. One structure to meet that goal would be weekly faculty meetings. A “structure” by itself, as quite notable in the examples provided, is necessary but not sufficient to really understanding how an organization is going about meeting its goals.
- **Processes.** Processes are approaches used within structures to engage individuals within an organization to enact their commitments in practice. How, for instance, are Individualized Education Plan meetings organized so that all participants are heard, respected, and the best possible solution agreed upon? How are faculty meetings “run” so that they become opportunities for educators to learn with and from each other? While often given slight shift in policies, processes are as important as structures. In combination, structures and processes document and make public how and why an individual or an institution is currently going about meeting the desired outcomes. Once practices become public, they become sharable, and thus improvable.
- **Feedback and Assessment.** Feedback and assessment mechanisms are the ways in which an organization goes about collecting information to help them understand how well it is progressing towards meeting its goals. In order for feedback and assessment mechanisms to meet their accountability for improvement functions requires a system of assessments that includes multiple sources of timely information, provided in formats that are understandable and usable by the multiple stakeholders of public education.
- **Safeguards.** Safeguards are protections put in place so that if assessments show, for instance, that an individual or group of students, is not advancing towards meeting our shared goals for them, that those students receive the supports necessary for success. A primary function of safeguards is to prevent students (or other categories of players in the educational enterprise for which we have goals) from falling through the cracks.
- **Incentives.** Incentives motivate and sustain ongoing inquiry and change, encouraging all members of an ecosystem to focus continually on the strengths, interests, and needs of the students and on the use and further development of quality practice.

The six elements, working together, constitute professional accountability for improvement. An organization demonstrates an improvement orientation when it sets goals, establishes structures and processes to meet those goals, and designs assessments, safeguards, and incentives to ensure that the agreed upon goals are met and ongoing inquiry leading to improvement occurs. Enacting professional accountability for improvement is an iterative process that requires continuous evaluation of how the organization meets established goals and ensures that professionals have the capacity to meet organizational goals.

Professional Accountability for Improvement in Action

Below, we provide four examples of organizations that have used a professional accountability for improvement model in one aspect of their work:

- The University of California at Santa Barbara's Teacher Education Program's focus on improving its curriculum to increase candidate learning,
- The Boston Teacher Residency's focus on improving its selection processes to increase the quality of teacher candidates,
- The National Writing Project's focus on improving professional development by making ongoing professional development responsive to teachers' local needs, and
- The California Commission for Teacher Credentialing's focus on improving the accreditation of teacher education programs to improve the capacities of beginning teachers.

The examples by themselves or even combined are not a complete ecosystem but rather specific examples in specific contexts with specific sets of goals of what a model of professional accountability for improvement looks like in practice. They demonstrate how enacting such a model supports teacher learning as well as the growth and development of the programs themselves as learning organizations. In addition, while each is only a slice of a complete ecosystem, they represent recruitment into and preparation for teachers so that they are ready to fulfill their responsibilities upon entry into the class; ongoing opportunities for the continuing growth and development of teachers once in the classroom, and finally a state agency with responsibility for entry into the profession through credentialing and program accreditation.

University of California at Santa Barbara's Teacher Education Program

Founded in 1961, the Teacher Education Program (TEP) at UC Santa Barbara, housed within the graduate school of education, is a 13-month post-baccalaureate program. TEP provides preparation for teaching credentials in special education, elementary, and secondary education (e.g. English, History, Math, Science, and World Language) for approximately 100 candidates each year. UCSB has a well-earned reputation as a high quality professional preparation program documented through numerous self-studies it has conducted (see, for instance, Lippincott, Peck, D'Emidio-Caston, & Snyder, 2005) as well as from external sources (see, for instance, Darling-Hammond, LaFors, & Snyder, 2001).

UCSB maintains a high bar for entrants. Applicants must have a minimum of a 3.0 grade point average as an undergraduate; complete five short essay questions in which the prompts range from "What excites you about embarking into the teaching profession?" to "What kinds of experiences have you had teaching or guiding children or adolescents including those with special needs or English learners?" Additionally, candidates must take part in an on campus interview that includes a writing assessment, as well as an individual and group interview (University of California, Santa Barbara Gevirtz Graduate School of Education, 2014).

Program outcomes and goals. Like all professional preparation programs in California, UCSB's goals for its candidates are the achievement of the California Standards for the Teaching Profession. The program seeks to meet that goal through a supervised and purposeful year long (14 month) teacher credential program that locates, conducts, and draws upon research and evidence. Moreover, TEP attempts to engage pre-service teachers in well-planned and sequenced experiences that combine coursework and experiences in K-12 classrooms. Approximately fifty percent of the graduate school of education's tenure track faculty teach in TEP. Clinical faculty and graduate students (recently removed from the classroom) complete the program's faculty. Central to TEP's mission is designing and enacting structures, processes and practices that support high quality teaching.

Structures and processes. Similar to other teacher education programs in California, TEP partially bases its recommendation for a credential on a candidate's successful completion of the Performance Assessment for California Teachers (PACT), a performance assessment developed and

piloted by a consortium of institutions in the state. PACT is a subject-specific multiple-measure assessment system aligned to state and national standards. The assessment reviews a teacher candidate's authentic teaching materials as the culmination of a teaching and learning process that documents and demonstrates each candidate's ability to effectively teach subject matter to all students. Comparable to the licensing exams in other professions such as medical licensing exams, the architecture exam, or the bar exam in law, it is designed to evaluate how teacher candidates plan and teach lessons in ways that make the content clear and help diverse students learn, assess the effectiveness of their teaching, and adjust teaching as necessary.

By state policy, scoring of the PACT occurs at each local institution. Scorers, however, are not typically tenured faculty. Initially, TEP, in an effort to ensure fairness, required tenured and non-tenured faculty alike to assess candidates' portfolios (Peck, McDonald, & Davis, 2014). As a result, according to TEP's director, tenure track faculty, clinical faculty, and doctoral students, serving as supervisors, began collaborating with each assessor analyzing and evaluating his/her own practice in relation to pre-service teachers' work samples.

Akin to "finals week," TEP suspends classes late in the program year. In addition to providing candidates the necessary time to complete the PACT, this provides teacher education faculty with the time and space to form a collective understanding of candidates' practice (Sloan, 2013). The suspension of classes provides all teacher educators (faculty, clinical faculty, and supervisors) with the opportunity to deepen their understanding of PACT's rubrics and a space to evaluate candidates' teaching in relation to the rubric. There is, however, little time within the period of suspended classes for teacher educators to refine their practice based on what pre-service teachers demonstrate they know and are able to do.

Feedback/assessment. Recognizing that the program, as originally scheduled, did not provide faculty, clinical faculty, and supervisors with an opportunity to reflect and refine their practice, TEP created three full-day "data retreats" over the course of the academic year. The purpose of these retreats is to critically examine and refine instructional and supervisory practice (Peck, McDonald, & Davis, 2014). During data retreats, assessment teams focus on candidates' PACT portfolios. The director described being intentional about organizing groups to ensure that each member's expertise (e.g. research, subject matter, pedagogy) would further how TEP collectively prepared teachers: "I think carefully about who will sit with whom and how I will structure activities to facilitate inquiry from multiple points of view" (p. 7).

The data retreats provide an opportunity for the program to create and enact policies and practices that support the development of novice teachers. Based on their analysis of the pedagogical content knowledge required by PACT, faculty members developed common lesson plan templates (Sloan, 2013) as well as rubrics for assessing candidates' work (Peck, Gallucci, Sloan, & Lippincott, 2009).

Safeguards and incentives. The data retreats also allow faculty, supervisors, and administrators to identify gaps, not only in their candidates' knowledge, but their own. After reviewing several portfolios, one instructor declared, "Our students don't understand academic language" to which another instructor confessed: "I don't get academic language" (Peck, McDonald, & Davis, 2014, p. 9).

This recognition that the program could not hold teacher candidates accountable for knowledge that some instructors and supervisors charged with preparing candidates did not possess - prompted the creation of a series of professional development opportunities for teacher educators. Program instructors designed activities for their colleagues that over time grew a coherent program-wide understanding of academic language. As program instructors took responsibility for increasing their peers' professional knowledge, teacher candidates benefited. One instructor described evidence

of candidates' growth this way—"I see evidence in their planning for daily teaching; I hear them talk about lessons with linguistic scaffolds in multiple content areas" (p. 9).

This example of how UCSB used assessment data to adjust its structures and processes, demonstrates how a teacher education program can use a professional model of accountability for improvement to enhance faculty learning, improve candidate opportunities for learning, and the development of candidate knowledge and skills—all in service of growing exemplary teachers for our children.

Boston Teacher Residency Program

In 2003, in partnership with Boston Public Schools (BPS), the Boston Plan for Excellence (BPE), created the Boston Teacher Residency program (BTR). The partnership between the local school district, BPS, and an educational non-profit, BPE, was an attempt to address several human capital challenges in Boston's public schools, namely "high new teacher turnover; a dearth of well trained teachers in specific content areas; a limited pool of highly qualified teachers of color; and too many newly hired teachers who were unprepared to carry out the district's instructional agenda" (Solomon, 2011).

BTR attracts recent college graduates, community members and career changers; its mission is to select and prepare a diverse cohort of highly qualified teachers to improve the learning outcomes of historically underperforming students. Considered a post-Baccalaureate Apprenticeship program, BTR provides pre-service teachers, or residents, 12 months of preparation that includes a four-day clinical placement alongside an experienced teacher. Residents also take weekly content method courses from veteran teachers. At the end of the program, residents receive a Master of Arts degree from the University of Massachusetts-Boston and commit to teaching in BPS for three years.

Program outcomes and goals. A recent value-added study found that BTR graduates have higher rates of retention and are more racially diverse than their district peers (Papay, West, Fullerton, & Kane, 2011). Findings also suggested that BTR's graduates were no more effective in raising English language arts scores than other district teachers. However, math teachers, particularly in years four and five, began to outperform their peers. Based, in part, to findings from the value-added study and on-going commitment to hold itself accountable to the mission of recruiting and retaining highly qualified teachers who can improve student learning, BTR made several changes to its program. According to BTR's executive director, Jesse Solomon (2011), these changes included:

- Setting explicit student learning goals for every resident/mentor team and for each new cohort of graduates;
- Refining the recruitment and selection processes to reflect lessons learned from studying the characteristics of effective BTR residents and graduates;
- Exiting residents who, despite support provided, do not meet new rigorous program standards;
- Implementing common instructional practices across all elements of the program to reduce variability in teacher quality;
- Concentrating the residency program and organizational resources in fewer partner schools, and clustering residents by content-area in partner schools;
- Reorganizing staff to create a corps of full-time Clinical Teacher Educators who can more effectively bridge theory and practice through their combined work as course instructors, site supervisors, and induction coaches.

While BTR has implemented each of the elements above, we explain how BTR refined candidates' recruitment and selection as a single slice of a model of professional accountability for improvement.

Structures and processes. Despite how rational and professional they might seem the program continually grapples with the question “are we right about the candidates we select?” As the former head of admissions notes, there were some candidates who were successful during the graduate program residency. Some of these graduates, however, were not successful in their classrooms and subsequently left the profession. Consequently, the organization took a series of corrective actions. This process, which they defined as taking a backward mapping approach pushed the organization to look at two groups of candidates: the first group was those candidates who had been successful and continued to teach. The other group was program graduates who left the teaching profession or struggled at their schools.

Feedback and assessment. After selecting two types of program graduates to study, those successful and those unsuccessful, BTR commissioned a taskforce, comprised solely of internal staff. The task force looked at multiple measures to assess why the program was not as effective as it wanted to be in selecting candidates who would stay as successful teachers in the Boston Public Schools. As an initial step, the task force compared the admission files of graduates from each group. One finding was that when compared to candidates who remained, candidates who struggled tended, on average, to have lower grade point averages and had fewer undergraduate courses in the subjects they taught.

Further, an examination of graduates’ files revealed that teachers who were successful described experiences they had around a life or academic struggle. These teachers were better able to describe how their experiences with struggle—or being unsuccessful in one domain—would inform the work they did with their future students than were the candidates who were not successful upon graduation.

The task force also surveyed principals, asking them to describe the dispositions of graduates in each group. One particularly salient finding was that principals suggested unsuccessful graduates were less likely to have a learner’s stance. For example, principals noted that these teachers, the ones they deemed underperforming, seemed less willing to attempt to incorporate feedback into subsequent lessons.

Safeguards and incentives. These three initial findings—successful candidates were more likely to have undergraduate courses in the subjects they taught, more likely to describe how experiences with struggle would inform the work they did with students, and more likely to have a learner’s stance—informed the second corrective action—changes in their structures and processes. BTR created an admissions department. Until this point, BTR focused much of its energy on recruitment. Specifically, one staff member was responsible for recruiting math and science applicants, while another English, Social Studies, and elementary. However, the task force recommended that in order for the program to ensure the quality of teachers in classrooms across BPS, it needed to revise its efforts around screening candidates.

One of the two previous recruiters led the new admissions department. Given the task force’s findings, the director set out to revise the application process. First, all reviewers began using a “content screen.” Applicants were screened out if, for the subject they desired to teach, they had not majored/minored in the content area. Candidates could, however, pass the state’s licensing exam to demonstrate their content knowledge. In some instances, if a candidate had some content courses, reviewers would then move to assess other parts of their application.

To address the finding that graduates of the program who were less likely to be successful upon graduation did not describe any academic or personal struggles, the admissions department added the following questions—Please give us an example of a time or situation in which you have experienced failure or faced significant setbacks or challenges. How did you approach the situation? What did you learn from it? How might this experience inform your work as a teacher? Moreover,

reviewers assessed applicants' responses on the degree to which they spoke about being resilient in the face of adversity, a characteristic sometimes referred to as "grit."

In addition, to address the finding that successful graduates were more likely to have a learner's stance, the program modified the components of the daylong interview. Again, prospective BTR pre-service teachers submitted a first round application that included four short essay questions, a resume, and three letters of recommendations. A two-person committee reviewed and scored the applications and invited a select group to a performance based interviewing session, also known as Selection Day. Previously, BTR required applicants to teach a seven-minute lesson, assessed by the interviewing committee, to a group of BPS students. To screen for a candidate's learning stance, the admissions department instituted a feedback session on the demonstration lesson.

On Selection Day, applicants rehearse their seven-minute lesson in front of a small group of applicants, as well as a clinical teacher educator. After the rehearsal, the clinical teacher educator provides the applicant with two actionable pieces of feedback that would increase engagement and facilitate learning for students. Applicants then had time to revise the lesson and to incorporate the feedback provided. During the demonstration lesson, interview committee members assess how and to what degree applicants incorporated the feedback.

While BTR's admissions committee continues to make slight revisions to its application each year, the three major changes around screening for content knowledge, assessing candidates' perseverance and learning stance contribute to the quality of its candidates, as well as its graduates' decisions to remain in the profession.

National Writing Project

Founded in 1974 by James Gray as the Bay Area Writing Project at the University of California, Berkeley, the National Writing Project (NWP) is now comprised of nearly 200 sites, which are housed in local universities and co-directed by university faculty and K-12 educators, in all 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. Each local writing project site follows a core set of principles and a model (i.e., structures and processes) of professional learning and support. The NWP model includes invitational summer institutes, with ongoing opportunities for learning through out the school year.

Program outcomes and goals. Researchers continue to find positive relationships between Writing Project professional development initiatives and improved teacher practice and student outcomes (Kim et al., 2011; Stokes, 2011). For example, the Pathway Project, a professional development program designed and facilitated by the University of California Irvine Writing Project, works with teachers to support English Language Learners in mainstream classrooms as they improve their capacity to write academic essays. Researchers, who conducted a randomized trial, found that students who were in classrooms with trained Pathway Project teachers improved both their writing scores on an assessment completed for the research and their scores on state English Language Arts tests (Kim et al., 2011).

In addition to the research studies that associate NWP's work on improving student learning, participating teachers continue to highlight the program's value-added to their practice. In 2010, 96% of the 3,000 teachers who participated in the NWP institute reported that when compared to other professional development, the institute had the greatest influence on their practice, assisted with providing skills and strategies to teach writing, and allowed them to see measurable improvements in student writing (Stokes, 2011). Finally, as an indication of its success around improving teacher practice and student learning, the NWP, between 2000–10, received approximately \$204 million dollars of federal funding to expand and support its work (U.S.

Department of Education, 2013).

Structures and processes. The National Writing Project has been described as an improvement infrastructure (Stokes, 2011). At every level—from an individual teacher’s teaching demonstration at the invitational summer institute, to each local Writing Project site’s efforts to serve the teachers in their region by responding to their strengths, interests, needs, and local policy environments, to the National Writing Project’s national office sponsoring grant-funded projects that address learning in the digital age—the National Writing Project works to create opportunities that facilitate continuous learning and improvement.

Invitational summer institutes form a core structure and process of the NWP model. During these four week sessions, veteran teachers of writing from all disciplines, kindergarten through university, learn together by engaging in writing themselves, inquiring into their own teaching, and reading current research and theory about the teaching of writing (Stokes, 2011). The invitational institute reflects NWP’s belief that teachers become better teachers of writing by engaging in the act of writing: together, teachers of writers work to draft, revise, edit, and publish pieces - while giving each other feedback at each stage of the writing process (Lieberman & Wood, 2003).

During the invitational summer institute, local writing project sites support teachers in developing as leaders (Lieberman & Wood, 2003). Central to this aspect of the invitational is the teaching demonstration, or teacher inquiry workshop, in which teachers identify a component of their practice to share with their peers and open it up to peer response, review, and adaptation—the beginning of continuous improvement. Toward the end of the invitational institute, teachers are invited to consider how they will continue their participation in the writing project community. Participation takes on a variety of forms such as continued study of focused topics, facilitating or presenting professional development to teachers in the local area, leadership of young writers camps, or other activities sponsored by the local Writing Project site.

One structure where participating teachers can continue their professional learning and growth as teacher leaders is what the NWP refers to as continuity. Continuity, as the National Writing Project suggests, “extends and deepens the cultural values enacted” (p. iii); each local Writing Project designs continuity activities that meet the specific needs of the teacher consultants in their local service area.

To illustrate how continuity can support continuous improvement, both for teachers and for a local writing project, we turn to an example from the University of California-Los Angeles Writing Project (UCLAWP). In 2009, UCLALWP leaders wrote a monograph describing two of their continuity programs that addressed specific teaching challenges faced by teachers in the greater Los Angeles area (Peitzman, Mota-Altman, & Carter, 2009). Both the leadership team and teachers at UCLAWP described how the growing student diversity presented challenges around creating conditions that facilitated student learning. One challenge was between mediating on-going conflict between Black and Latino populations. In addition to raising issues around racial/ethnic diversity, UCLAWP also included sexual orientation. Teachers reported being unaware of how to provide safe and inclusive environments for their lesbian, gay, bisexual, and transgender (LGBT) students.

Feedback and assessment. The UCLA study group embeds several mechanisms for collecting and analyzing feedback and assessment. First, the study group identifies a local issue, which often resonates nationally, and convenes experienced teachers who facilitate teachers learning together about the issue. Teachers, together, engage in studying the problem of practice by reading, critiquing their own practice, and in this instance, discussing race and homophobia. Teachers then go through several cycles of applying their new knowledge in their classrooms and then bringing their learning back to the group.

For example, during the initial years of the Issues of Homophobia study group, facilitators

focused on working with teachers to address intolerance in the classroom. Facilitators of the group, however, learned with the participating teachers that they could not wait for teachable moments, but instead needed to be proactive around creating opportunities for students to read and write about discrimination. In the group's third year, participants decided to teach a common text that featured gay characters. Participants used their study sessions to share lessons, teaching journals, and challenges with engaging students around LGBT issues. UCLAWP, through the structure of the study group, "created a space where teachers could prepare to engage students in meaningful, carefully planned conversations about LGBT issues" (Carter, Mota-Altman, & Peitzman, 2009, p. 13).

Safeguards and incentives. In responding to its original question of how to sustain a local presence that is both responsive to teachers' needs and be true to NWP's mission, NWP has used the structure, processes, and embedded assessment opportunities of continuity in local writing projects to engage and support teachers. One particular way that a local writing project, UCLAWP, addressed the needs of teachers who participated in the summer institute was to design study groups to provide teachers with opportunities to collaboratively create and enact pedagogical approaches to respond to the changing demographics of their communities. After identifying practices and ways of supporting teachers in on-going professional development during the academic-year, teacher-consultants took their learning to the summer institute. Specifically, teacher consultants (TCs) expanded the types of books teachers read over the summer to include topics such as race and sexual orientation. Additionally, UCLAWP, during the summer institutes, invites one of the study group facilitators to lead a session around talking about race in the classroom. Study group participants now use the summer institutes as a way to provide participants with a "glimpse into the larger professional community available to them through the writing project" (p. 15).

California Commission on Teacher Credentialing (CCTC)

Established in 1970, the California Commission on Teacher Credentialing (Commission) is an independent body within California state government's executive branch and is the first independent teacher state standards board in the country. The Commission is comprised of 19 members who are appointed by the Governor with ex-officio representatives from the State Superintendent of Public Instruction, the Association of Independent California Colleges and Universities, Regents of the University of California, California Postsecondary Education Commission, and the California State University. The Commission's primary responsibilities include creating standards for beginning educators, accrediting preparation programs, the licensing of teachers, as well as disciplining credentialed teachers.

Under its auspices, California has created excellent preparation models for both teachers and principals that serve as examples for others in the nation. These models, whose strong results have been documented in national studies, include both some traditional pre-service programs and high-quality internship programs (Darling-Hammond, 2006; Darling-Hammond, LaFors, & Snyder, 2001; Humphrey, Wechsler, Hough, & SRI International, 2008). California has also developed thoughtful standards to guide the teaching and leadership professions in the form of the California Standards for the Teaching Profession (CSTP) and the California Professional Standards for Educational Leaders (CPSEL). These are widely acknowledged as beacons for guiding practice that can be used across the entire continuum of the career.

Over the years, the CTC has enacted a number of important initiatives that have lead the nation. The Beginning Teacher Support and Assessment Program (BTSA) was one of the first well-designed programs in the nation for providing mentoring to beginning teachers. Reed, Rueben, and Barbour (2006) found that BTSA improved effectiveness and dramatically reduced turnover for

novice teachers. The CTC also took the lead in the development of teacher performance assessments for licensing—an approach that looks at what teachers can actually do before they begin to teach, rather than solely using seat time, course credits, or paper-and-pencil tests.

Program outcomes and goals. Currently, there are 265 Commission approved institutions in California that prepare teachers or provide induction programs. Approximately 45% are California State Universities; 43% are independent colleges or universities. The University of California, local school districts, and county offices account for the remaining teacher preparation and induction providers. These institutions of higher education and local entities offer approximately 1,400 individual accredited preparation and induction programs. During the 2013–14 academic year, the Commission processed approximately 79,500 new credentials to teachers (Commission on Teacher Credentialing, 2015a). These credentials ranged from teaching multiple subjects (usually for elementary school teachers), single subjects (usually for subject specific secondary school teachers), students with special education, as well as career and technical education.

The Commission, on its website, describes its vision as ensuring that all children in California “achieve to their highest potential with the support of a well-prepared and exceptionally qualified educator workforce” (Commission on Teacher Credentialing, 2015b). Over the course of its 44-year history, the Commission has continued to refine the processes it uses to ensure that students across the state have access to well-prepared and highly qualified teachers. In 2004, following legislative intent that it supported, the Commission revised its accreditation processes and in 2014 is again doing so.

Structures and processes. In 1993, the Commission adopted its first framework for accrediting teacher preparation programs. Before this point, external reviewers assessed programs and determined whether to accredit a teacher preparation program. As a result of the new Accreditation Framework, external reviewers make recommendations to the Committee of Accreditation who ultimately decided to accredit a teacher preparation program. Before and after the Commission’s adoption of the Accreditation Framework, the one site visit continued to be the primary vehicle for determining accreditation. In addition to the accreditation visit, candidates had to pass a basic skills test, establish their subject matter expertise (through an exam or completing an approved undergraduate preparation compilation of courses—a “subject matter program”), an exam on pedagogical content knowledge, and an exam on the teaching of reading.

For much of its history, while candidates were required to pass an increasing number of exams, the Commission approved programs based on one metric, an on-site visit (Mastain, 2011). The visit, which consisted of a team of external reviewers, occurred every 6–7 years. Programs that did not meet the Commission’s standards received additional visits. Accreditation site visits typically included reviewing voluminous documentation around how the program met the Commission’s, primarily “input,” standards and interviewing program administrators, faculty, school-based educators, and teacher candidates. The Commission was well aware that the one-time accreditation visit did not encourage programs to continue to improve. There were no structures and processes to either ensure or support continuous improvement. There was a perceived danger that the visit was a pageant (and a time and labor intensive pageant) with little in the way of either incentives or sanctions to secure that programs did not return to their previous course of business as usual after evaluators left.

Feedback and assessment. Despite the 2004 revisions, the Commission retained a gnawing dissatisfaction. More could, and needed, to be done. California has a vibrant, diverse student population that represents families who have had roots in the Golden State for centuries and others who have more recently arrived from virtually every nation on the globe. With high rates of

immigration, California also has the highest proportion of English learners (ELs) in the country (California Department of Education, 2009–2010). Approximately 55% of students in California schools come from low-income families (Rich, 2015). Schools with concentrations of minority and low-income students are among the most under-resourced in the state, with fewer dollars, curriculum resources and well-qualified teachers than others, although the needs they confront are greater (Oakes, 2003).

Within these demographic and resource contexts, expectations for learning are rising. Like most states in the nation, California has adopted new standards for students and an ambitious new assessment system. These changes in standards and assessment will require major instructional changes if California students are to succeed. These conditions are outside of the direct control of the CTC. They certainly, however, influence the work of educators and therefore the role of the Commission in educator preparation.

While California has created some excellent preparation programs for both teachers and principals, the range of program quality is wide. Some educators are permitted to enter the profession with little training and without having met meaningful standards for knowledge of content and pedagogy. The state's capacity to enforce its high-quality standards has been uneven. Over the last decade, accreditation visits had started and stopped with budget swings, and funding for program investments has also varied. In addition the variety of routes and programs through which teachers and principals enter California classrooms features quite different requirements for coursework and clinical training and sets different standards for quality. Given the challenges facing today's educators, the CTC felt there were areas of preparation that must be deepened and the variability in quality among preparation programs must be narrowed. Programs for preparing educators to serve English learners, early childhood-age students and students with disabilities needed particular attention. In addition, California is perhaps the only state in the nation with no specific requirement for supervised student teaching. While some candidates receive as much as 40 weeks of carefully supervised and calibrated clinical experience under the wing of an expert, others may receive only a few days or weeks before they begin in the classroom.

Safeguards and incentives. The 2004 revisions (completed in 2006) focused on four key areas: providing accountability to the public and the profession; ensuring high quality programs; adherence to standards; and fostering ongoing program improvement. The revised framework provided a structure that increased transparency to the public and the profession, encouraged ongoing improvement and renewed focus on ensuring that programs are high quality through a tighter alignment between the accreditation process and the Commission's standards.

Because of their desire to continually improve (despite relatively recently completing a complete overhaul of its accreditation system and an educational policy environment in transition where it could lay low for several years), the Commission is initiating a process to completely revise its accreditation roles and responsibilities.

In the process that it is beginning, the Commission is using an inclusive approach that brings all the stakeholders together in work groups and provides multiple opportunities for public input. They do so for two reasons. One is to assure they generate the best solutions by taking into consideration the multiple perspectives from the diverse stakeholders in professional preparation. The second is to use the process to grow the capacity of the field to implement the changes to their full potential. Too often, sound policy changes founder on the shoals of poor planning of implementation strategies.

The plan has multiple interdependent steps. The first step is to update licensing and program accreditation standards for teachers and principals to support the teaching of more demanding content to more diverse learners, as reflected in the new state standards and in the growing

knowledge about how to teach culturally and linguistically diverse students. In addition to relevant coursework, the new program and accreditation standards will help assure that prospective educators receive intensively supervised clinical preparation with the support of both college and school-based educators who know how to do the work well.

While still in process, the new accreditation model will include six changes:

- Streamlining the preparation standards with a focus on alignment with desired outcomes and a reduction of unnecessary or unrelated “input” standards;
- Launching an administrator performance assessment and amending the teacher performance assessment standards with an emphasis on greater quality in the instruments and consistency in their implementation and scoring, so that they can be part of the information used in accreditation;
- Revising the induction program standards so that the programs provide more consistent, high-quality mentoring for beginning teachers, rather than additional paperwork for beginning teachers;
- Reviewing and simplifying existing current accreditation activities focusing on high leverage sources of data for use in the accreditation decision while reducing unnecessary paperwork documentation;
- Creating graduate and employer surveys to be used by all programs and determining how survey results will be shared and used in the accreditation process; and
- Defining the elements of a “data dashboard” system to promote transparency for stakeholders and the public that can also be used by programs to flag areas for further study and improvement.

In short, the Commission is using feedback and assessment it has received to revise its structures and processes and to create safeguards and incentives to meet its goals more successfully. If it is successful, candidates should have more consistently positive experiences gaining the knowledge and skills they need in their preparation programs, thus creating a strong foundation for their careers as educators.

A System of Professional Accountability for Improvement

In the previous section we provided several examples of particular institutional slices of professional accountability for improvement. In order for us to meet our goals for all our children, however, small isolated slices at particular points in time will not be sufficient. To make meeting our goals the norm rather than the anomaly across the multiple institutions that share the responsibility for the caliber of the adults who work with our children daily will require a coherent system. This system will need to consistently (without prescriptive uniformity) assure that educators:

- Are well prepared prior to becoming teachers;
- Have ongoing opportunities for learning/continuing development throughout their careers from their initial entry into the role through retirement; and
- Work in schools and districts that provide the conditions where they, and more importantly their students, can do what they are capable of doing.

In addition, for the system to work, it must cohere and be supported at the state level. In this section, we draw heavily from *Greatness by Design* (Task Force on Educator Excellence, 2012).

Well-Prepared Prior to Becoming Teachers

The key issues here are two-fold: recruiting *and* preparing top candidates in all teaching fields and for school leadership positions and ensuring that they are available in all of the communities, schools and classrooms where they are needed. This involves recruiting a culturally diverse, high-quality teaching and school leadership workforce. It also involves preparing educators to support all of California's diverse students in acquiring the 21st century skills that will enable them to become life, college, and career ready.

Studies of effective teacher and principal preparation programs point repeatedly to the powerful learning that occurs when candidates learn to teach or lead in well-designed and carefully-selected clinical settings under the direct guidance of expert practitioners, while taking coursework that is practice-focused and tightly aligned (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009; Darling-Hammond et al., 2007; Davis & Darling-Hammond, 2012).

To ensure a steady stream of talent into high-need subjects and schools requires underwriting the training costs of high-ability candidates who will become well-prepared to teach or lead in high-need fields and locations for a minimum of four years—the point at which individuals typically have become skilled and commit to the profession. This amount of time would be repayment for the investment in their preparation. Whereas high-achieving countries such as Finland and Singapore underwrite all of the costs of high-quality teacher and principal preparation and often offer additional wages to those who go to high-need areas, in the United States there are few supports for educator education or distribution.

There are several recruiting mechanisms that have been used successfully in the past. One is to offer subsidies and expand programs for recruitment and training of a diverse pool of high-ability educators for high-need fields and high-need locations. A second way to increase the diversity of the teaching force is to create new pathways into teaching that align the resources of community colleges and state universities with supports for candidates willing to commit to working in high-need schools. States can promote stability, diversity and competence in our educator workforce through direct, focused outreach and expansion of the role of community colleges, articulated with state university programs, as a pipeline for teacher preparation for those who, as the system is currently configured, often leave the pipeline prior to becoming fully prepared. A third approach is to focus recruitment of educators into key, high-need fields: early childhood educators, teachers and administrators who serve dual language learners, and teachers and administrators who serve students with disabilities in both general education and specialist contexts. This has been done in two ways. One is through stipends, service scholarships and forgivable loans to underwrite the costs of training for candidates in these areas. Another is offer incentives and high-quality accessible pathways for already licensed teachers to become cross-trained in shortage areas.

Recruitment alone, however, is insufficient to assuring that educators are “job ready” on their first day of being responsible for our children. Thus, we must provide a qualified and diverse pool of candidates universal high-quality teacher education, completely at government expense including a living stipend.

Once recruited into and supported within a preparation program, those programs must be developed around professional teaching standards that guide the candidate's opportunities for learning, practicing, and assessing their development. Those opportunities include:

- Well designed and powerful clinical experiences (in nations like Finland, this includes at least one year of practice teaching in a practice school connected to a university);
- Expert mentoring and coaching;
- Coursework in content and content pedagogy;

- Learning specific practices and applying them in the classroom;
- Study of local district curriculum;
- Capstone portfolio or performance assessment tying theory to practice.

Performance assessments are a particularly promising element as, when done well, they both support the professional preparation of educators *and* help the state meet its legal and ethical responsibility to our children and to the public. That is, performance assessments are both evaluative and educative. They measure effectiveness, improve candidate capacities, improve scorers' understanding of teaching, as well as inform and improve preparation.

Finally, while it is essential to grow capacity from capacity, it is also necessary for preparation pathways to address endemic issues particularly the preparation needs of educators in such key areas as: early childhood, dual language learners, and students with disabilities.

Ongoing Opportunities for Learning

In a profession as complex and rapidly changing as education, our children need educators who are continuously growing and developing. A strong preparation is just the beginning of career-long growth and development. Such growth and development, however, looks different and requires different approaches for teachers at different stages of their career. New teachers for instance can either become highly competent in their first years on the job—or they may develop counterproductive approaches or leave the profession entirely—depending on the kind and quality of help they encounter when they enter. Attitudes and beliefs developed during induction are carried for a career. Induction serves a key role in developing new members of the profession into the expertise expected by parents, students and the public, as well as colleagues and supervisors.

The necessity for growth and development does not end once established in one's career. As Wei, Darling-Hammond, Andree, Richardson, and Orphanos (2009) note:

Professional learning can have a powerful effect on teacher skills and knowledge and on student learning. To be effective, however, it must be sustained, focused on important content, and embedded in the work of collaborative professional learning teams that support ongoing improvements in teachers' practice and student achievement. (p. 7)

Thus, it is imperative to develop the knowledge and skills of all educators throughout their careers through readily available, high-quality professional learning opportunities.

The Early Years

The current approach for beginning educators is, still all too often, sink or swim. Such an approach is neither educationally nor financially responsible. Financially the current approach is penny wise and pound foolish, as teacher turnover is extremely costly. According to the National Commission on Teaching and America's Future (2009), the United States spends \$7.3 billion each year to recruit, screen and train teachers who leave schools for reasons other than retirement. Much of this turnover is caused by inadequate preparation and mentoring and by poor, but correctable, teaching conditions (Futernick, 2007).

Educationally the current system is irresponsible because high turnover rates within under-resourced and poorly managed schools cause discontinuity that interferes with school improvement efforts and reduces student achievement (Ronfeldt, Loeb, & Wyckoff, 2012). Studies have long shown that high-quality teacher induction programs lead to teachers who stay in the profession at higher rates, accelerated professional growth among new teachers and improved student learning (Ingersoll & Strong, 2011).

Thus, quality induction experiences for all beginners in their early years of teaching are an essential component of what beginning teachers require. Early career learning opportunities should include:

- Mentoring for beginners from expert coaches in the same content/teaching level who model expert approaches and coach in the classroom;
- Collaborative planning with a reduced teaching load to create the necessary time and
- Further study in key areas (addressing the strengths, interests, and needs of all students especially those exhibiting developmental variations and dual language learners, working with parents) (Darling-Hammond, 2010; Ingersoll & Strong, 2011; Kain, 1996).

To help assure such experiences, induction programs should include:

- Regular mentoring within the educator's context by a carefully selected and trained mentor;
- Personalized learning that is integrated with school and district goals;
- Performance indicators for program completion and the award of a clear license; and
- Seamless integration with pre-service preparation and an ongoing career continuum that provides multiple options for growth and sharing of expertise.

Learning Opportunities for Experienced Teachers

Once established in the field, another essential element of a professional accountability for improvement is a range of rigorous, standards-based, professional growth opportunities aligning professional learning resources within and across systems. These elements should respond to student and educator needs as well as school and district goals, resources, and expertise. High quality learning opportunities for experienced teachers share several features and will require the reallocation of time for teachers to have the opportunities to learn with and from each other.

Features of high quality professional development include:

- A focus on learning specific curriculum content;
- Organization around real problems of practice;
- Connection to teachers' work with children;
- Linkages to analysis of teaching and student learning;
- Intensive, sustained, and continuous opportunities over time;
- Ongoing support via coaching, modeling, observation, and feedback;
- Connection to teachers' collaborative work in professional learning communities
- Integration into school and classroom planning around curriculum, instruction, and assessment.

These features can be met in multiple ways including:

- Well-functioning *Subject Matter Projects* that have sufficient reach to be accessible to all educators working to achieve content standards within subject matter fields;
- *Professional Learning Hubs* specializing in developing culturally and linguistically responsive pedagogy for diverse populations such as dual language learners and students with disabilities;
- *Supports for National Board Certification* as a way to develop both individual and school-wide teaching capacity and career development opportunities; and
- *Identification and Dissemination of Promising Practices*, such as lesson study and action research or Leadership Networks.

All of these essential features of high quality professional development recognize that time is required for teachers to learn and develop knowledge and skills together. The kind of time required is of the magnitude of 15 to 25 hours a week of planning and collaboration embedded in the school, schedule plus an additional two to four weeks of professional learning time to attend institutes and seminars, visit other schools and classrooms, conduct action research and lesson studies and participate in school retreats. Allocating such time will require multiple creative approaches including extending the day for teachers, rearranging student schedules, using learning technologies in innovative ways, and/or increasing professional learning time through professional learning days.

In short, job-embedded professional learning time dramatically improves the coherence of instruction and the quality of teaching and learning. Thus professional accountability for improvement requires incentives for schools to establish flexible structures within the teaching day and year that provide time for teachers to participate in collegial planning and job-embedded professional learning opportunities.

Organizing Schools for Leadership Development

Just as golfers cannot play the golf they are capable of playing on a basketball court, teachers cannot educate as they are capable of educating in a school that is as alien to teacher learning. To meet our goals for our children will require changes in how the people within schools are organized, how the internal expertise is used, and, as noted above, how time is allocated. A key element across the board is enriching the capacity of teachers, and the use of that capacity within the school and beyond. This often falls into the category of teacher leadership. A truly responsible professional accountability system would include opportunities for expert teachers to be engaged in leading curriculum development, professional development teacher evaluation, and mentoring/coaching, as well as for some to be recruited and prepared as principals or other school administrators in high-quality programs.

Such teacher leadership requires multiple career pathways that reward, develop, and allow for the sharing of expertise. A research-based Career Development Framework that offers technical assistance and leadership training opportunities needs to undergird these pathways. A professional accountability system would assure that all teachers receive equitable, competitive salaries that are comparable to other professions, such as engineering. A career development framework would also include additional stipends for working in hard-to-staff schools and for the addition of new roles and responsibilities.

Teacher evaluation is an important element of professional development and organizing the school for teacher and student learning. It also provides an example of how professional accountability for improvement involves new and different roles for teachers. The goal of teacher evaluation is to strengthen the knowledge, skills and practices needed to improve students' academic growth by using reliable data sources that fairly and accurately depict both teachers' practices and students' learning—and the relationship between the two. Teacher evaluation, to be successful, must both provide necessary protections for students *and* support teacher growth and development. To do solely one or the other is not just a missed opportunity, it harms the education of our children. When evaluations provide teachers with frequent feedback on the important elements of their practice and enable them to reflect on the connections to student learning, they support continuing growth and student achievement increases (Milanowski, Kimball, & White, 2004).

For teacher evaluations to be successful they should be accompanied by useful feedback and connected to professional learning opportunities that are relevant to teachers' goals and needs, including both formal professional development and peer collaboration, observation and coaching.

In addition, they should be used to identify needs for professional learning and goals of the individual teacher's growth plan.

An effective system for evaluating teachers, administrators and other staff will have, at minimum, the following features:

- It is tied to professional standards and ensures educator performance is assessed against those standards;
- It is informed by data from a variety of sources, including valid measures of educator practice and student learning and growth;
- It is a priority within the district, with dedicated time, training and support provided to evaluators and to those who mentor educators needing assistance;
- It differentiates based on the educator's level of experience and individual needs;
- It values and supports collaboration, which feeds whole school improvement;
- It meets legal and ethical standards for employment decisions and provides a system that allows these decisions to be made in an efficient, fair and effective way; and
- It includes both formative and summative assessments, providing information both to improve practice and to support personnel decisions (Darling-Hammond, 2012; Moir, 2012).

In a model of professional accountability, the evaluation system should value and promote teacher collaboration both in the standards and criteria that are used to assess teachers' work and in the way results are used to shape professional learning opportunities. Such a model explicitly acknowledges that teaching expertise resides primarily in teachers and therefore teachers are obliged to assume leadership of the learning community.

This suggests several points of entry for educators to participate in the evaluation of their peers. One such entry point would be to build on successful Peer Assistance and Review (PAR) models for educators who need assistance, to ensure intensive, expert support and well-grounded personnel decisions. In such models, accomplished teachers provide the additional subject-specific expertise and person-power needed to ensure that intensive and effective assistance is offered and that decisions about permanent status and continuation are well-grounded. Well-designed PAR programs ensure that struggling teachers receive assistance and that personnel decisions can be made in a timely and effective way with panels of teachers and administrators overseeing the evaluation process.

Clearly, many of the models and approaches suggested in this section bump up against existing labor-management agreements and more generally, existing labor-management relationships. A truly professional accountability for improvement model, however, will require re-establishing those agreements and relationships. Innovation in educator roles, responsibilities and compensation systems will require labor-management collaboration. In a model of professional accountability, however, all educators, regardless of their role will accept the four commitments of a profession.

The Role of the State

States, in their constitutions, are responsible for public education. Aside from the legal and ethical implications of this responsibility, it is the state that grants credentials to educators—who in turn practice throughout the state. There is no way that individual districts and/or schools could bear the weight, by themselves, of the responsibility of educating all of the children of the state. Thus, the state has an unavoidable role in professional accountability for improvement.

We briefly summarize key state level roles and responsibilities below.

- Define the standards for quality preservice and induction programs as well as professional development opportunities for both teachers and administrators and embed them in state accountability systems for funding, dissemination, and (when appropriate) accreditation;
- Clarify the performance expectations for beginning teachers and administrators (and their mentors) and administer appropriate assessment of those expectations;
- Align the career system so that it allows a seamless transition from preparation to career decisions and ongoing development.
- Coordinate and develop high-quality growth opportunities, including those that leverage technology for professional learning;
- Provide consistent, high-leverage resources for professional learning by creating incentives for schools to establish time for collaborative planning and learning within the teaching day and dedicating a consistent share of the state education budget to professional learning investments;
- Support Individual Professional Learning Plans for each educator informed by professional standards, student learning goals and the unique learning needs of the educator and his or her students. Individual professional learning portfolios should capture learning across stages of each professional's career. In an aligned system of preparation, induction, professional development, supervision, evaluation and career development, these learning plans can help teachers and administrators chart a course toward deepening their skills—and can help schools and districts guide decisions about how to provide valued and valuable professional learning opportunities.

As with individual teachers, schools, and districts, the state too must be continually developing; it must itself be a learning eco-system. Growth and development, in humans and organizations/institutions, do not always follow the same path in precisely the same way and the same time. There are, however, several “milestones” along the way that can guide and support the growth and development of the state as a learning eco-system:

- The establishment of a framework for state, county and local boards to evaluate and update their policies around professional learning opportunities. This framework should articulate a set of research-informed principles related to professional learning policy, standards and guidance. The state board, as well as local boards, can use the framework to evaluate their policies and guidance related to professional learning opportunities.
- In partnership with knowledge organizations (such as institutions of higher education, local education authorities, and research organizations), share research and expertise with schools and districts by documenting and disseminating information on effective models of preparation, induction, professional learning, evaluation and career development to share with institutions of higher education, schools and districts through online vehicles, conferences and public/professional outreach.
- Support networks of schools and districts to engage in shared learning and knowledge production.
- Use what is learned about effective practices to inform state policy as it influences legislation, regulatory guidance and plans for scale up and expansion of practice.

Putting It All Together

The complete system outlined in the previous section might seem like a pipe dream. The reality, however, is that nearly everything described above exists, or has existed, in separate pieces, at periods of time, in isolated pockets of this country. For instance, the type of undergraduate experience where experience working with children was a part of subject matter classes continues to be done at Amherst College (Amherst College, 2014). There was also a similar program, the Comprehensive Teacher Education Institute, at California State University, Chico in the 1990's that provided undergraduates with K–12 teaching experiences (California State University Institute for Education Reform Institute for Education Reform, 1998).

The financial aid packages proposed are similar to those administered as part of the Cal Teach Program in California during the acute teacher shortage of the late 1990's and early 2000's (Center for the Future of Teaching and Learning, 2005). Foundations have also provided financial incentives for college undergraduates to enter the teaching profession; for example, the Rockefeller Brothers Fund, through most of the 1990's, and, more recently, the Woodrow Wilson National Fellowship Foundation provides graduate fellowships and loan forgiveness for teachers in high poverty schools (Sleeter, Neal, & Kumashiro, 2014).

High quality but fair experiences during the admissions process and teacher preparation can be found in pre-service teacher preparation programs in multiple locations throughout the country, such as in Alverno College in Milwaukee, Wisconsin, at the University of Southern Maine (Darling-Hammond, 2006), and Bank Street College in New York City (Snyder & Lit, 2010).

Similarly, the induction approaches recommended resemble programs across the U.S. such as the Beginning Teacher Support and Assessment Program in California (WestEd, 2002), Albuquerque Resident Teacher Program (Feiman-Nemser & Parker, 1992), and the Rochester Induction Program (Joftus & Maddox-Dolan, 2002). In each of these programs, veteran teacher mentor novice teachers by providing on-going support around designing curriculum and establishing routines that increase student engagement in learning.

Professional Development models of the sort described exist in multiple locations and models including: the Subject Matter Projects (Bier & Gallagher, 2012); support programs for the National Board for Professional Teaching Standards (Illinois State University National Board Resource Center, 2011); and on-going support for teachers using the International Baccalaureate curriculum (International Baccalaureate Organization, 2014).

Connecticut, through the 1990's, embedded many of the state level policies of a complete and coherent system of professional accountability for improvement (Barron, 1999). For instance, Connecticut equalized teacher salaries across districts, created scholarship programs to attract students to attend undergraduate and graduate teacher preparation programs, established loan forgiveness programs to encourage candidates to teach in high need schools, ended emergency licensing, required and funded mentors for all first year teachers, and mandated on-going professional development for license renewal (Wilson, Darling-Hammond, & Berry, 2001).

The problem is such policies and practices have not, and currently do not, exist in totality, let alone in abundance. For a professional model of accountability for improvement to be the norm rather than the anomaly requires a comprehensive reframing of policies and practices through every level of the educational enterprise. It would require a carefully crafted and cohesive ecosystem of policies and practices encompassing the entire career of an educator from recruitment to retirement. Such an ecosystem does not yet exist.

Thus, we close with a description of the career of a teacher in an imagined future where all of our educators, and all of their students, receive what all too few educators and students receive today.

A Teaching Career

Postsecondary Education

Jamaal Grey, a recent college graduate with a math major, received a broad based liberal arts education that included courses in the humanities, arts, and sciences. Integrated in his course of study were numerous experiences working with secondary school students. For example, in a math course on linear algebra, he spent one-half day each week in a local high school math class working with students there to understand the trajectories that humans traverse in their understanding of that set of domains of mathematical knowledge. Similarly, in a Microeconomics course, Jamaal, while learning about how households make decisions, interviewed and tracked students' spending habits at a local high school.

Partially as a result of these positive experiences with high school aged students and a passion for social justice, Jamaal decided to pursue a career in teaching. Since a national body accredited each teacher preparation program across the country, Jamaal was confident that, no matter what program he attended, he would graduate well prepared to support student learning when he began teaching. Since he was entering his professional education as a college graduate, this accreditation process assured him he would experience an integrated set of course work and clinical experiences that helped him learn, integrate in practice, and assess his knowledge and skills in understanding children (their families and communities) in all their wondrous diversity and how to render his understanding of the content area into engaging learning opportunities for students. Moreover, he knew that course work and clinical experiences would be coherent and integrated and that his clinical experiences would be supported by both college and school-based educators who were prepared, paid, and had sufficient time for their roles.

Jamaal identified a geographic area in which he hoped to settle upon becoming a teacher because he wanted to come to know the community in which he would be teaching. In that particular geographical region, he selected teacher preparation programs that included an explicit focus on "social justice." For Jamaal, it wasn't only important to complement his content knowledge and knowledge of children and how they develop with pedagogical content knowledge and to expand his repertoire of pedagogical strategies—he wanted a program that aligned with his budding educational philosophy: creating educational opportunities for our most socio-economically marginalized students.

Jamaal did not have to worry about financing his professional preparation. While he incurred some debt from his undergraduate institution, a combination of federal, state, and local funding sources covered all costs related to his professional preparation as long as he remained teaching in a hard to staff school or subject area for five years.

Jamaal's decision was ultimately between two types of programs: one in a doctorate granting research focused university and one in a district/post-baccalaureate university partnership. Both programs had an equal distribution of professors and accomplished classroom teachers who served as instructors and both provided the cohesive mix of course work and clinical experience required for national accreditation. The main distinctions between the programs were that pre-service teachers who successfully completed the post-baccalaureate partnership program only had their clinical experience in the partnership district, received an additional stipend for their clinical experience, and had to commit to teach in one of the partnering district's schools for five years.

Recruitment and Selection

Similar to the Common Application for undergraduate institutions, Jamaal uses the Common Teacher Preparation Program Application for post-graduate professional preparation programs. The application, accepted by all professional preparation programs, requires prospective candidates to have an overall grade point average of 3.0, as well as to demonstrate content knowledge in the subject they desire to teach, assessed via a resume, transcripts, and three letters of recommendation. The application also requires three short essays. The first essay is a narrative about the experiences that bring one to teaching. The second question requires another narrative describing an experience of how he handled failure and an analysis of how one would apply lessons from a personal instance of failure to one's work as a future educator. The third essay requires reading a research article documenting the opportunity and achievement gaps in the United States and then providing an analytical interpretation of the data and suggestions for improvement based upon that analysis.

When programs received Jamaal's application, it was assigned to a three-panel review committee comprised of a course instructor, a mentor teacher, and an admissions officer. Each committee member is trained on how to assess the application materials to avoid bias around race, gender, or sexual orientation. Committee members independently review applications for deep content knowledge in the subject matter(s) to be taught. Jamaal, being a math major, passed the content screen. After the content screen, review committee members read each of the other parts of Jamaal's application looking for evidence of his commitment to teaching as a profession, closing the opportunity gap, and having a learner's stance.

Following the paper review, institutions winnow the candidates to select a group of candidates to invite for an on-campus selection day. Central to their decision is to invite a diverse group of applicants. Diversity, committee members believed, facilitated learning: having a group of teacher candidates across a racial/ethnic, class, gender, and sexual orientation spectrum would not only create a rich learning environment during teachers' pre-service experience, but also would prepare teachers for the diverse classrooms they would enter after the program.

On Selection Day, Jamaal took part in a variety of performance assessments. The day began with Jamaal participating in a group problem-solving exercise where fellow math applicants devised an action plan for improving one student's academic performance based on a work sample. Then, he moved to teaching a seven-minute math lesson to applicants in his cohort. After teaching the lesson, Jamaal received feedback from a clinical teacher educator and retaught the lesson to a group of high school math students. Students also assessed Jamaal's application. Similar to the written application, the program assessed Jamaal's candidacy in relation to his commitment to teaching as a profession, closing the opportunity gap, and having a learner's stance.

Teacher Preparation

Jamaal, upon receiving his acceptance, enrolled in a teacher-training program. In addition to the human development, methods, and foundations courses, Jamaal's clinical experience(s) practicum, played an integral role in his professional preparation. Clinical placements sites had to demonstrate a commitment to diversity. Specifically, the teacher preparation program was attentive to choosing schools with a diverse range of students and learners in *each* classroom. Also, schools had to have strong parent and community partnerships because of the realization that to educate the whole-child required an understanding of students across different contexts. Once selected, schools received an additional allotment, per teacher candidate, to support the additional time, labor, and expertise required to educate a pre-service teacher. For instance, mentor teachers agreed to participate in on-going professional development and had a reduced teaching load to ensure that

Jamaal's mentor teacher had the capacity and the time to provide him with on-going feedback during the practicum.

Like a novice swimmer entering the water one body part at a time, Jamaal was "gradually released" into assuming full-time teaching responsibility of his class: first observing the students and his cooperating teacher; then assuming responsibility for students in small groups. As his capacities grew, he began teaching units, ultimately assuming a full teaching load, comprised of day to day planning, teaching, assessing, and communicating with families. Jamaal was assessed through his program and successfully passed a performance assessment based upon his work in his final clinical experience. The standards upon which the performance assessments were based are the same as the standards to which he will be aspiring, and measuring himself against, in his induction program and on-going teacher evaluation once he has entered the profession.

Entry Into the Profession

Because neighboring states acknowledged Jamaal's teacher certification, he applied to school districts in several states. While all districts provide induction programs and offer professional development opportunities, he focused his efforts on a district that had the strongest reputation in those two areas. In addition, the district had a strong robotics program that seemed a good match for his desire to integrate math expertise with science, technology, and engineering.

Jamaal submitted his application to the district's human resource office, which served the function of validating his certification and completing a background check. In the district in which he was most interested, school sites were primarily responsible for hiring. The school-site hiring process felt familiar to Jamaal as it mirrored the selection day of his teacher education program. For example, Jamaal taught a sample lesson to a group of students. And, during a group interview with faculty members, reflected on why he chose particular teaching moves during his sample lesson.

Induction

During his first three years of teaching, Jamaal worked with a mentor who provided content and grade span appropriate coaching. His mentor, a National Board Certified teacher in the district with release time, worked with four other novice teachers, the district caseload for mentors. One month before school began, Jamaal met with his mentor and his district cohort group to plan each of his six units for the year. Before his first year, Jamaal's mentor focused the planning on the first unit, assisting him with designing policies and routines for students that would help create a quality-learning environment with his students.

Once the school year began, the secondary school induction model provided content focused coaching to first year teachers, mentoring sessions centered on providing novices with feedback on planning, teaching, assessing, and working with families. Specifically, mentors engaged first-year teachers like Jamaal in five coaching cycles, with each cycle containing co-planning, observation, debriefing (based on observation and student work samples), and areas/plans for future growth. The combination of the mentoring from the more expert other and the collaboration of his cohort provided Jamaal with the support needed to succeed as an early career teacher and to begin his trajectory towards career long improvement.

On-Going, Inservice, Professional Development

As Jamaal advanced in his career, the principal at his school organized on-going, school-wide, professional development modeled on the National Board Certification process. For example, one year Jamaal's principal, similar to the lesson study model, focused teacher teams on using images of their practice (i.e. video) to reflect on how particular teaching moves enabled or constrained student learning. Another year, Jamaal's principal organized the teacher teams around the use of

formative and summative assessments (work samples) to inform practice. Jamaal, in his math content team, spent time examining the relationship between how and what he taught with students' work. Instead of merely looking at aggregate student responses, Jamaal and his colleagues began to hypothesize about why students generated work in particular ways, to understand their thinking, the understandings and partial understandings they brought to their work. Looking closely at student work in this way enriched how he and his colleagues enacted future instruction.

These formal structures and processes help create a professional culture of trust and of making one's practice visible—and thus sharable and improvable. Throughout his career, Jamaal collaborated with colleagues to address dilemmas of practice—in formal occasions as well as in informal conversations and sharing of materials and practices. It was not only “okay” to admit that one could always improve, it was essential. And it was essential for the entire school to support each and every adult who worked with children to do so.

Throughout his career, Jamaal had multiple opportunities for taking on roles and responsibilities in addition to teaching the students in his classrooms. As his expertise expanded and was documented, he could choose, while remaining in the classroom (or returning to the classroom after several years of service) to serve as a cooperating teacher or induction mentor—as were provided for him in his own early years as a teacher. The district also used teachers to develop curriculum and assessments as well as to provide structured professional development with and for other teachers. Such professional development included school-site based professional learning communities, sustained cross-site offerings, and individual teacher support through a peer assistance and review program. In addition, his district was involved in receiving and providing school quality review visits where a team of educators reviewed documents, visited a school, and provided feedback to that school as part of an ongoing school improvement process. Jamaal's participation in these school quality reviews supported other schools and each time he visited another school in this role, he came back with ideas and practices to enact in his home school.

Evaluation And Tenure

The role of teacher evaluation in Jamaal's career was to support and improve instruction. Thus teacher evaluation was coherent with and reinforced the professional development undertaken by teachers. In the spring of each year of his teaching, Jamaal compiled a portfolio of evidence he had been collecting though out the year regarding his work as a teacher. The elements of the portfolio included evidence of student learning (from multiple sources including semi-standardized data as well as individual work samples), classroom practice (from observations), professional service, and work with family and community. During his induction years, he and his mentor then used this portfolio as the basis, along with school and district priorities, for establishing strengths and areas of desired improvement including specific steps Jamaal committed to making to improve in those areas and support that the school committed to providing him to improve in those areas.

Following receiving tenure after successful completion of his induction program, this conversation happened, at the secondary level, with either his department chair or principal. The outcome of this conversation was an Individualized Teacher Support Plan (ITSP). The ITSP served as the focus of his evaluation the following year and was used as a focus for Jamaal's work in and evaluation of the professional development activities undertaken during that year.

While not applicable to Jamaal, should a teacher fail to show progress towards meeting the commitments in his or her ITPS, the district had a Peer Assistance and Review Process (PAR) in place. (In fact, because of better preparation and stronger support for teachers in their early years, instances of poor teachers will most likely be far fewer in number than is currently assumed to be the case.) PAR assured teachers who were not living up to their own, and their district's,

expectations received a full year of additional focused support. If at the end of that year of focused support, sufficient progress was not made, a joint administrative/teacher panel made a decision to either continue or to end that teacher's employment in the district.

Conclusion

In this article we expanded on Darling-Hammond, Wilhoit, and Pittenger's (2014) new approach to accountability and directed our attention to one of the three pillars—professional accountability for improvement. We provided a conceptual framework for a model of professional accountability for improvement. We then described particular slices of the work of four organizations that show what such a model can look like in particular contexts. Third, we offered an over view of what a complete system of professional accountability for improvement would require. We concluded with a narrative describing the career of a teacher in an imagined future where each and every child could benefit from educators who were prepared and work within a coherent professional model of accountability for improvement. The University of California at Santa Barbara's Teacher Education Program's focus on improving its curriculum to increase candidate learning; the Boston Teacher Residency's efforts to improve its selection processes to increase the quality of teacher candidates; the National Writing Project's attention to improving professional development by making on-going professional development responsive to teachers' local needs; and the California Commission for Teacher Credentialing's focus on improving the accreditation of teacher education programs to improve the capacities of beginning teachers are an acknowledgement that parts of professional accountability for improvement can be actualized in organizations. However, if students are to reach ambitious college, career, and life-ready standards, the parts highlighted in this article must exist in a complete system. This article provides such a framework for policymakers, researchers, and practitioners.

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