Introduction

State education leaders have a historic opportunity. Right now, they can decide to do one of three things: they can lead transformation, they can impede transformation, or they can watch from the cheap seats. American schooling, as we have known it for more than a century, has been disrupted. The Internet and an aggressive network of educational entrepreneurs have exploded the monopoly that classroom teachers and textbooks have traditionally held over students’ access to knowledge. Federal and state accountability mandates no longer assume results but demand that schools supply evidence of their success. New data systems have made school and teacher performance, or the lack thereof, more transparent to more people. The troubled economy is driving school organizations to become more efficient and driving the business community to demand that schools produce graduates with different sets of skills. States are finally uniting around common student learning standards as the student population grows more diverse.

And the administration is pouring an unprecedented amount of money into education to support thoughtful innovation. To thrive, not just survive, in this new age, the very heart of schools—instruction—must undergo transformation.

To harness the opportunities for large-scale instructional reform that these disruptions bring, it is the position of American Institutes for Research (AIR) that states should lead the structural transformation of schooling, beginning with revolutionizing how they think about, prepare, license, deploy, and support educators. Many states have gotten a head start on improving the quality of instruction in America’s schools by working to build a holistic system of educator talent management, recognizing that teachers are—and likely always will be—the critical school factor in student learning, followed closely by school leaders. Managing educator talent requires focusing on all the variables needed to successfully build human-capital capacity—preparation, recruitment, selection, induction, professional development, working conditions, compensation,
and performance management—and noting where and how they intersect and build on one another. School officials in a few states are working toward implementing such an integrated system. In this white paper, we argue that the structural transformation of our schools will necessitate a rethinking of each of the variables in the teacher career continuum and a revisualization of multiple career continua for different kinds of teachers. We will further argue that states must support this process by giving schools the guidance and the flexibility to rewrite teachers’ job descriptions to ensure that productive instructional transformation can occur.

We begin by briefly describing what form the structural transformation of schools can take if states provide the right conditions. We then introduce the concept of neo-differentiated staffing with which forward-looking states will begin to experiment to propel and sustain the new system. Finally, we discuss how AIR can help states stay surefooted during these tectonic times. Future papers will explore other aspects of the transformation.

Unbundled Education

The transformation of schools means that education will become “unbundled”—no longer wrapped in a neat brick-and-mortar school package, with teachers with similarly inadequate training struggling to differentiate their instruction in a homogenized one-teacher-per-classroom delivery model. No longer will the century-old Carnegie unit dictate how students progress through school; instead, students will make progress as fast or slow as they are able to acquire important content and achieve performance-based competencies with their teachers’ support. Schools will become facilitated platforms for open content and curriculum, social media, and communities of action. They will become the nerve centers of the communities they serve. In short, schools will assume a new identity.

Unbundling education also means that the school walls will become so permeable as to be almost virtual. Many of the most meaningful learning experiences students have occur outside of schools, in their communities, neighborhoods, and families. Schools can no longer use this fact as an excuse or act as if schooling alone can overcome those experiences, or worse, ignore the resources that communities, neighborhoods, and families can contribute to student learning. In a transformed school, communities and families will participate in student learning, and students themselves will step out into the world, more meaningfully engaging with the lessons it has to offer.

Students already have access to a universe of knowledge at the drag and click of a little blinking cursor. They can consult artists and experts on other continents, even scientists on the International Space Station. They can browse the stacks of the Library of Congress, examine the collections of the Louvre, and take a tour of...
the canyons of Mars without leaving their red plastic seats. Schools that limit learning to that which takes place within school walls will quickly become obsolete. By the same token, schools that delegate teaching and learning to the Internet will fail their students, too.

Although technology and the skilled implementation of performance competencies will drive much of this change, learning in a transformed school requires a team of adults to help students make sense of that universe of knowledge, to use social media wisely, and to participate fully in communities of action. Students need a team of trained specialists to enhance their comprehension and writing skills, to help them make connections to what they learn in different contexts, to teach them how to marshal and use evidence to make an argument or prove a hypothesis, to motivate their exploration of multiple and contested ideas, and to reassure them that life will be better once they get through puberty. Students also need a team of school-based specialists to help them overcome their reading difficulties, counsel them through family trauma, manage their insulin injections, make sure they get proper nutrition and enough exercise on a daily basis, and help them become fluent and comfortable speaking and writing in English. Instruction must become more personalized so that children can attain mastery of particular competencies. Unbundled education requires that schools reorganize their faculty and adopt a “neo-differentiated” staffing model. This model organizes teachers into teams and differentiates roles according to their skill, expertise, the demands of the curriculum, and the needs of children. It also outsources some of the work of teachers to experts in other schools, communities, and states.

Neo-Differentiated Staffing

In the late 1960s and early 1970s, differentiated staffing was all the rage among those wishing to professionalize teaching. An oft-cited example is the Temple City Unified School District in California. District officials saw differentiated staffing as organizing teachers along a hierarchy with, in this case, four levels: (1) associate teachers, the least experienced, full-time teachers; (2) staff teachers, “fully trained,” experienced teachers; (3) senior teachers, who taught 60 percent of the day and held teacher leadership responsibilities; and (4) master teachers, who trained the senior teachers and were adept at conducting and understanding research. This differentiated staffing model was abandoned within a few years for a variety of reasons and bears no resemblance to the model introduced in this paper. The neo-differentiated staffing model we propose is more flexible and differentiated. It would better capitalize on the talent, knowledge, and skills of teachers, thereby improving teachers’ ability to provide effective instruction and, consequently, professional satisfaction. Done well, it would prove sustainable in the long run.
The need for a new staffing model is a fact. Currently, we ask teachers to do too much, which ultimately results in too little for far too few. The concept of a “generalist” has been abolished from almost every profession that strongly impacts society: law, medicine, the business sector. Teachers, though, are still expected to wear an inordinate number of hats. In his article “The Human Capital Challenge: Toward a 21st Century Teaching Profession,” Frederick Hess (2009) explains,

Even in the most innovative and dynamic charter schools, teaching bundles together the roles of content deliverer, curriculum designer, diagnostician, disciplinarian, discussion leader, empathizer, clerk, secretary, and attendant—and asks teachers to fulfill these roles for a variety of students in a variety of content areas. (p. 13)

The net result of this system of staffing is that teachers are worked harder than necessary and devote a smaller amount of time than appropriate to honing their clinical practice.

As learning becomes unbundled, there will be a necessary shift in the role and function of the teaching force. With school no longer bound to a classroom or even a brick-and-mortar building, it will be even harder (not to mention less productive) for teachers to perform all the duties demanded of them. In a system of unbundled education, the teacher moves away from being the disseminator of information and toward being a facilitator of learning. And as school becomes the nerve center of the community, teachers also will be coordinators of services. There is little or no utility in requiring that every teacher do all of this work; instead, a system of neo-differentiated staffing will ensure that each educator can specialize in one aspect of a child’s education and together with his or her colleagues ensure that each component of holistic learning is adequately attended to and that all students achieve mastery of Performance Competencies.

To visualize what this would look like, imagine this: A 12-year-old, Kevin, enrolls at a transformed school. Rather than being assigned to the standard set of core classes, he meets first with his learning clinician. The role of the Learning Clinician is to use multiple sources of evidence to assess Kevin’s particular learning styles, needs, and current performance competency levels and, from there, assemble a team of content facilitators. These practitioners have knowledge of both content competencies and pedagogy. Once they have met as a team (with and then without Kevin), they set up this young man’s learning experiences. This means anything from engaging other stakeholders to designing assessments, both formative and summative. The team of content facilitators is responsible for evaluating Kevin’s overall educational growth, and the learning clinician is responsible for evaluating the team of Facilitators.
As an example of one such content facilitator, we give you Pam. Inside the classroom, Pam’s teaching is no longer bound to a curriculum that is misaligned with the textbooks she uses and the state assessments she is required to administer but is instead based on the successful facilitation of a series of well-supported, centrally established achievement objectives, Performance Competencies, with high-quality aligned assessments. She no longer works alone, struggling in isolation to ensure her students pass the test. Instead, she is directing her expertise with a team of colleagues to move her students toward mastery of competencies such as group work, problem solving, and change management—as well as mastery of the content. With her colleagues, she provides an outlet for students to gain authentic, real-life learning opportunities inside the classroom and out. Her students can learn about the concept of perspective from her, an online module, or the local green architect, and it is her responsibility to ensure that individual students are matched up with the medium to which she knows they will best respond.

Once Pam has assessed the curricular needs of each her students, she can work with the other specialists of the school to ensure that these services are provided. She can work with the community liaison down the hall to find an architect to work with Kevin on a project using perspective. She can work with the technology practitioner next door to establish an online learning experience for another group of students. She can work with the content and competency expert to design and implement assessments for these various students; they will involve rubrics and some performative aspect and will engage both the field experts and the students in authentic ways.

Though the impact Pam will have on Kevin’s learning is high stakes, it is relatively low pressure because she knows that she has a team to assist her. Also, she will work with her instructional coach to refine her clinical practice. Pam’s Coach observes her teaching, her facilitation meetings, and her ability to choose and implement effective and reliable performance-based assessments. From the district level, a curriculum specialist will visit Pam’s school periodically to help Pam and her Coach create authentic and meaningful content-based experiences for students.

**New Career Paths for Teachers**

Currently, the teacher career continuum generally follows the same trajectory: teacher candidates apply to a preparation program. They take some classes and become student teachers for a variable period of time. They then are hired by a school district, where they work as novice teachers of record during an induction phase. From there,
nearly one third leaves the classroom either temporarily or permanently within the first three years. After that, some leave the classroom to work in administration; some remain with one foot in the classroom, becoming mentors, coaches, department chairs, or teacher leaders; and some remain teachers of record, teaching the same five classes throughout the course of their careers. Finally, they become retired teachers. As Dan Lortie writes in his classic 1975 study of the work of teachers, “The status of the young tenured teacher is not appreciably different from that of the highly experienced old-timer” (p. 85). This has not changed much in the intervening 30-plus years. The relative lack of career staging and opportunities for professional growth turns many talented individuals off from the profession (Hirsch, 2006; Rochkind, Immerwahr, Ott, & Johnson, 2007; York-Barr & Duke, 2004).

A neo-differentiated staffing model would upend this flatly linear and largely unsatisfying trajectory. Teachers could move flexibly between roles as their expertise shifts, interests evolve, and family responsibilities grow and recede. In this model, after she received her bachelor’s degree in engineering, Pam began her teaching career as a teacher assistant to a Performance Competency Level 2 Team (which consisted of a range of professionals whose principal responsibility was making sure that children, no matter their age, attained a mastery of Performance Level 2 before moving on to Level 3). She worked in that role for two years while taking classes and gradually taking on more responsibility, working directly with children in small groups as they completed their computer-assisted learning modules while more senior learning clinicians, instructional coaches, and content facilitators provided other groups of students with personalized instruction. She gradually became an expert in the content and pedagogy of Mathematics Competency Levels 1 through 3; she also became skilled at managing small groups of children. She was promoted to mathematics content teacher, and eventually mathematics content expert, helping other teachers make curricular decisions. She quickly grew interested in bringing outside experts into the classroom to make the mathematics more meaningful for students and made a lot of connections through various professional learning opportunities. She also grew more cognizant of the need to connect children with special needs to specially trained providers. She became a content facilitator. Now, however, her elderly parents were demanding more of her attention, and she realized she might have to take some leave. Her instructional coach offered to scale back her responsibilities so she could work part time as she trained other content facilitators. Each time she took on more responsibility or switched to a role that required more expertise and experience, she was rewarded with an increase in her salary. She also received performance pay when her Performance Competency Team met or exceeded the state’s expectations. A relatively small number of teachers may wish to stay within the same differentiated role throughout their careers. They, too, would be rewarded as they become more skilled, competent, and effective in that
role, but all teachers would be expected to act as resources for their less experienced teammates.

A shift to neo-differentiated staffing and the new careers that will take shape as a result means a dramatic change in the arrangements of teachers’ work and the culture of the workplace. Those who teach children not only must teach in different ways but also must share in the responsibility for teaching and learning with their colleagues across the hallway, down the block, and around the world.

According to several researchers, one of the reasons the Temple City differentiated staffing model failed was that many teachers were simply not prepared for such changes (Freiberg, 1985). Teachers, who traditionally have an egalitarian orientation (Lortie, 1975), were suddenly asked to become team members in a hierarchical structure, and planners did not allow enough time for the effort and preparation it would take to help teachers get used to the new way of doing things. Another important reason it failed was that it became an incentive for only a few teachers and a disincentive for many, as the vast majority of teachers could not move up the hierarchy because of financial constraints and quotas. After a few years, new teachers entering the system found that all the upper level positions were filled.

A system of neo-differentiated staffing implemented in the new millennium would sidestep many of the problems that Temple City and similar districts faced. First, it would take place in a context wherein more teachers are used to working with their colleagues and are becoming used to the idea of at least differential pay (with a surge of Generation Y teachers who grew up in an educational system that privileges group work and who are more open to performance-based pay). Second, neo-differentiated staffing allows for both horizontal and vertical moves, rewarding performance and expertise.

Transformers Today

Extended Learning Opportunities in New Hampshire.

In New Hampshire, state education officials have been working in tandem with staff from the Capital Area Center for Educational Support and the Q.E.D. Foundation to design, implement, and evaluate an initiative featuring a version of differentiated staffing. Termed “Supporting Student Success Through Extended Learning Opportunities (ELO),” the strategic reform is based on the idea that students will be more engaged and will reach a deeper level of learning and understanding if they are able to gain competencies outside of the school building. As described in New Hampshire Department of Education literature:

Extended Learning Opportunities allow for the primary acquisition of knowledge and skills through instruction or study outside of the traditional classroom including, but not limited to: Independent study, Private instruction, Performing groups, Internships, Community
service, Apprenticeships, and Online courses. ELOs validate the learning that takes place outside of school that is youth centered and focuses both on the acquisition of skills and knowledge and on youth development. (New Hampshire Department of Education, n.d.)

In the ELO model, teachers become facilitators of learning, working with individual students to design externship-like learning experiences that take place outside of the classroom. Each student creates his or her own plan for competency-mastery, which includes a kind of apprenticeship in the community and a performance-based assessment. The teachers, then, are no longer directly responsible for instructional delivery, but instead broker relationships between “field experts” in the community and the students for whom they are responsible. The teachers undergo rigorous training and professional development to prepare them for this new role.

Several policy levers have been pulled in order for the ELO system to take shape in New Hampshire. As of the 2008–09 school year, for example, the state has mandated that all local boards of education must allow students to earn high school credit through a system of competency mastery; competency assessments are now in place at all high schools, for all courses. With the abandonment of the Carnegie unit, New Hampshire state education officials have taken steps toward embracing a system of unbundled education.

The School of One. Another example of the transformation that is coming is the just-off-the-drawing-board program called the School of One, which is being piloted this summer in New York City. Based on the premise that children come to school with a variety of academic and social learning styles and needs and that the current one-teacher-per-classroom model of instruction has been failing for too long, the School of One seeks to personalize instruction in a fundamentally new and evidence-based way.

Much like the differentiated staffing model sketched earlier in this paper, entering students will be assessed on multiple dimensions using not only the city’s assessment system but also student and parent surveys and other measures to determine the optimal instructional program for each student. Continuous formative assessment will be used to adjust each child’s instructional program on a daily basis. Teachers and administrators will use this information to implement the instructional modality that will work the best for each student and each teacher. For example, teachers who are really skilled at coaching students on an individual basis will work with students struggling to master a particular topic, whereas their colleagues might work with two or three small groups of students who are working to improve their communication skills and seem to learn best when working with particular peers. Meanwhile, another teacher who is a very experienced and skilled lecturer may be introducing a topic with a larger group of students.
Administrators and curriculum experts will provide teachers with a menu of instructional options and learning activities for each aspect of the curriculum and help them choose which option will work best for each student.

Because teaching and learning are individualized and adjusted daily, students’ schedules and learning activities change daily. There is a veritable English garden of opportunities. To prevent students and teachers from becoming “lost,” each student’s daily learning plan is posted on a marquee in each classroom. The human capital demands for such a system to be successful are, of course, significant and not fully understood at the present moment, but if the School of One is successful in ensuring that every student learns without depending on constant Herculean exertions from teachers and school leaders, it could serve as a model for future change.

Moving Toward a Neo-Differentiated Staffing Model: Implications for States

Educating the people of the 21st century well requires that we carefully usher in the new era of unbundled education. States must take a united, leading role in this transformation because only states have the power to bring coherence and quality to the movement. States sit at the nexus point of federal investments in education and local efforts at implementation, and with the right motivation, they can truly harness their best and brightest to launch large-scale reform. The neo-differentiated staffing model is a starting place for states to mobilize the broader, more comprehensive transformation of public schooling. Nevertheless, even isolating the innovation to reforms in staffing has implications for multiple aspects of the education system, some of which are introduced briefly here:

- Current efforts to agree to a common core of state standards in English language arts and mathematics for Grades K–12 (McNeil, 2009) are the first step in developing a common set of performance competencies for every subject, with common assessments that are directly aligned to those performance competencies. States should allocate significant resources—preferably through a competitive process—to ensure that school faculty receive high-quality training to understand the performance competencies and how to teach to them (with sample lessons and video modules).

- The implications for traditional teacher preparation programs are vast, but neo-differentiated staffing holds more promise than any large-scale initiative to date to transform how teachers are prepared and supported throughout their careers. States can incent institutions of higher education to build differentiated teacher training models
that are more focused and flexible in the course of study required for the attainment of specialized degrees and that are more deeply connected to the K–12 schools they serve. Teacher preparation providers of all stripes can be incented to provide more rigorous, practice-based training to build high-leverage clinical skills among their graduates. Finally, through various accountability levers, states can encourage teacher education providers to ensure that their candidates develop a core set of pedagogical skills that are aligned to student learning standards and performance competencies so that all teachers can provide highly effective instruction.

- States can turn teacher licensure on its head by issuing qualifications-based certificates that are accepted in all 50 states. Teachers with minimal training or experience would be granted a Teacher Assistant certificate. In a severe bind, an individual so certified would be allowed to be a full teacher of record, but administrators would have to justify such a placement with evidence that the individual is providing adequate instruction. Teachers who attain particular qualifications and can provide evidence of effectiveness would be eligible to be granted a Teacher certificate. Teachers who take the requisite coursework and can pass a rigorous content assessment would become content teachers and content experts. States may wish to make the demonstration of effectiveness a requirement for these advanced forms of licensure. States also may choose to grant Teaching Instructor licenses or Teacher Specialist licenses based on the staffing model they adopt.

- States should reallocate regulatory energy that currently prevents teacher mobility across state borders to ensure that teacher selection conducted at the local level is rigorous and based on common teaching standards aligned to student performance competencies and measured through common evaluation standards. In addition, states can make it easier for retired teachers to work part time as part of Performance Competency teams, for example as community mentors, teaching assistants, or content facilitators (for a related discussion, see Carroll & Foster, 2008).

- States should provide innovation grants to schools willing to experiment with new forms of staffing and connect them to those institutions of higher learning that have signed on to prepare and support a performance competency-based teaching and learning model. States would benefit from creating a state network of stakeholders, to include school leaders, institutions of higher learning, community colleges, educational service agencies, and district innovators, to help seed and support the innovation.
States should design compensation models that hold Performance Competency Teams accountable for the percentage of children who achieve mastery at each level and the speed at which they manage to do it. Because student learning in unbundled education becomes the result of many adults and curricular resources in a school, rather than one teacher in one classroom, individual teachers’ impact on student learning will be nearly impossible to determine. Nevertheless, individuals in schools should be held accountable for their contribution to teaching and learning and paid differentially based on their specialized expertise and role on the team.

Conclusion

Helping to bring down the walls of the schoolhouse is a powerful systemic approach to public school reform for two reasons. First, it casts a wider net of engagement for high school-age students, providing a more authentic education for more adolescents, and increasing the levels of postsecondary preparedness. In an unbundled school, students would have the opportunity to participate in the “real world” before ever graduating from high school, and teachers would have the opportunity to focus on perfecting the knowledge and skills particular to their specific responsibilities and crafts. When students can visualize themselves in authentic work environments, the dream of success and achievement becomes much more viable. In a system of differentiated staffing and learning, the impact of education is deeper for all involved. Second, this approach begins to take into account the true indicators of school failure, such as poverty and lack of access, and giving staff the authority and flexibility to bring in outside resources to address all of the needs that impede learning helps to alleviate some of the issues for which schools are currently being blamed but that they currently cannot help.

In an effort to move boldly toward the structural transformation of schools, AIR will kick this work up a notch in the coming years, acting as a provocateur—challenging the failing status quo, stamping out groupthink, and pushing to extend the boundaries of the school walls, perhaps before many believe they are ready. The options for “schooling” in 2012 are only as containable as we allow them to be. Now is the time to begin working together toward a system that helps to facilitate success for all learners.
The Knowledge Map of Future Forces published by the Knowledgeworks Foundation and the Institute for the Future (n.d.) identifies “unbundled education” as an important future trend affecting education. Hess and Manno (2008) discuss the need to “unbundle” K–12 education provision. In the book The Big Switch, Carr (2008) describes the “great unbundling” as what happens to media when it goes online—for example, readers of newspapers are now able to pick and choose the articles they want to read rather than purchase the whole paper, and listeners of music no longer need to buy a whole album but can download individual tracks.

In a recent treatise titled A Broader, Bolder Approach to Education (Economic Policy Institute, 2008), education thinkers from all over the country came together to argue that education policy reform must take a more community-minded approach if the American public education system is ever to accomplish its aim of high-quality education for all children. The need for community schooling is a national imperative.

References


About American Institutes for Research

Established in 1946, with headquarters in Washington, D.C., and offices across the country, American Institutes for Research (AIR) is an independent, nonpartisan, not-for-profit organization that conducts behavioral and social science research and delivers technical assistance both domestically and internationally in the areas of health, education, and workforce productivity. As one of the largest behavioral and social science research organizations in the world, AIR is committed to empowering communities and institutions with innovative solutions to the most critical education, health, workforce, and international development challenges.

AIR currently stands as a national leader in teaching and learning improvement, providing the research, assessment, evaluation, and technical assistance to ensure that all students—particularly those facing historical disadvantages—have access to a high-quality, effective education.