

The Strategic Management of Human Capital: Making the Smart Investments in Teachers and Principals

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Corporations have been striving to perfect the ‘people side’ of their operations for decades. Most hunt aggressively for the right talent, train workers to produce at high levels, and reward top performers with promotions and higher pay. In public education, though, school districts have been more passive in managing this vital asset. Most rely on colleges and universities to supply workers, and pay and promote people for experience and education levels rather than for their success in raising student achievement. But as the pressure to improve schools continues to mount — and reform efforts fall short — a growing number of school district leaders, funders, education thinkers, and policymakers are zeroing in on developing ‘human capital’ as the key strategy to improve student learning.

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In this paper I summarize some of the most relevant issues, evidence, and divergent thinking relative to the strategic management of human capital in education. In other words, how do we get smarter about recruiting, developing, and rewarding effective teachers and principals for our nation’s schools. This paper has been built upon the most recent research, interviews with 20 of the leading experts around the nation, and structured conversations with leading-edge educators in Colorado — as well as 25 years of my own experiences in trying to advance teaching as a profession in America. This paper was supported, in part, by the Rose Community Foundation — a relatively small philanthropy that has significant local and national influence in ongoing efforts to improve teaching so that all students achieve at high levels. I begin by outlining, in very brief form, the long tradition of human capital mismanagement in education, lessons learned nationally and globally, and issues and ideas surfaced from recent work in Colorado. While there is reason for optimism, state and local policymakers must act aggressively and strategically — especially given the current fiscal crises facing our nation’s schools. Amid the challenges, leaders must also recognize the opportunities offered by the Obama administration and “stimulus” dollars that will instigate and push our public schools to “race to the top.”

The Mismanagement of Human Capital in Education

As policymakers, policy experts, and philanthropists try to ramp up public education to meet the needs of a global economy, they have turned their attention to “the acquisition, development, performance management and retention of top talent in the nation’s schools.”ⁱ Research supports the growing knowledge that teachers make the most difference in raising student achievement and that strong principals are key to school improvement.

Amidst this research consensus, contrary facts are real and daunting: Poor children and those of color are far more likely **not** to be taught by qualified or effective teachers — no matter how the terms “qualified” or “effective” are defined. Teachers who produce higher value-added student achievement gains as well as those who are National Board Certified are far less likely to teach economically disadvantaged and minority students.ⁱⁱ No doubt, money matters when it comes to

recruiting and retaining qualified and effective teachers for high-needs schools, but more than anything else, good teachers want to work for good principals, and the latter is in short supply.

A wide array of initiatives has been launched to attract non-traditional recruits to education, to measure effective teaching and label “highly qualified” teachers, and to prepare principals differently. While progress has been made, America’s public schools still rely on a relatively dysfunctional system of teacher and principal development. As Rick Hess has suggested, in many ways the human capital pipeline that supplies our public schools is “the result of more than a century of compromises, incremental adjustments, and calculated moves designed in response to the exigencies of another era.”ⁱⁱⁱ I would suggest that if we purposefully set out to design a more dysfunctional system of teacher and principal development, we could not have done a better job.

Our nation’s teacher development system still seems to be built on the assumption that talented females, as a captive labor pool, are willing to work for below-market wages. School district recruitment and hiring practices rest on increasingly outdated mid-20th century organizational assumptions about teaching and learning, as well as the career mobility patterns of Baby Boomers — not those of Generation Y.^{iv} Most universities, while attracting more academically able candidates than in the past,^v still do not prepare teachers for teaching in high-needs schools. Few school districts know how to grow their own talent — especially from the pool of community members who might begin their education careers as teaching assistants, mentors for students, or content experts from the private sector.

School district and union collective bargaining agreements focus on seniority and security, while stark divisions of labor and contentious relationships between administrators and teachers hinder creative reforms. Tenure rules are designed to protect teachers from administrative abuses and performance evaluations continue to be perfunctory. The evidence is becoming ever clearer that these norms of operation get in the way of designing a more flexible and effective human capital system.

More problems prevail. Lock-step teacher compensation systems ensure uniformity and predictability for teachers and the school boards who pay them. But the price of predictability is unacceptably high. These archaic systems stifle teacher creativity, ignore market realities, and isolate teaching expertise. Few, if any, focus on what matters most — student learning. Finance systems that dictate low teacher salaries in urban and rural districts almost guarantee that local policymakers do not have the financial resources to compete in the teacher labor market. At the same time, state school boards and legislators routinely lower hiring standards to expediently address teacher shortages — especially for schools serving our nation’s most vulnerable students. New teachers tend to be assigned the most challenging classes without comprehensive mentoring from trained experts who have time to support them. Even those teachers who are well-prepared and well-qualified often find they cannot teach effectively in schools where poor working conditions — inadequate or unsupportive administrators, limited time to learn, too few opportunities to lead and collaborate — define their professional environment.

Recently published case studies offer only limited evidence of progress, even among those districts that are considered exemplary.^{vi} Gains are being made on some fronts, including more

successful recruiting of more talented teacher candidates^{vii} and streamlining of district hiring practices. From a viewpoint of developing a stronger teaching profession, however, most of the innovation still seems to be on the margins, with little attention being paid to developing teacher leaders who can promote student learning that will meet the demands of our 21st century society and economy — transcending the boundaries defined by current standardized tests. This current testing system, along with the human capital management system it strongly influences, is ill-designed to instill and assess essential 21st century skills such as application, evaluation and synthesis of knowledge, literacy in a digital world, innovation, smart networking, and collaboration — all needed for participating in the global economy and America’s evolving democratic way of life.

The recruitment and support systems for principals are even more under-conceptualized and underdeveloped. While notable exceptions have unfolded over the last several years (e.g., New Leaders for New Schools and the Stanford Educational Leadership Institute), most principals are not selected for their teaching expertise and experience, and their roles are often complex and ambiguous without adequate mentoring or support. Many teachers, who have yet to develop high levels of teaching expertise, enter the principalship as soon as possible as a means to earn more income. However, in doing so, they have yet to develop the skills needed to become instructional leaders. In turn, they are not trusted to lead their teacher colleagues.

Even when effective teachers are selected to lead schools, most end up working without any coherent development system to frame their careers and retain them as school leaders. Too many are expected to do too much — managing the 3Bs of “buses, books, and bottoms” (i.e., transportation, distributing resources, and student discipline) while also becoming experts in leading their school’s instructional program, no matter the content area (i.e., math or physical education and health). While more principals are now trained to examine student data and organize school schedules and resources to increase standardized test scores, few are prepared to develop and utilize teacher expertise and leadership for more ambitious outcomes. Too many school leadership programs pit principals versus teachers (and the school administration versus the teachers’ union), instead of figuring out how to elevate the potential of both and establish strategies for working together.

In order to create a coherent system of human capital in education, strategic school systems must decide what good teaching and learning looks like and go beyond the traditional and often perfunctory checklist approach to teacher evaluation. They cannot solely rely on once-a-year, large-scale standardized test results to tell them who knows how to teach effectively. However, they must draw on valid and reliable evidence. They also can no longer rely on stark divisions between who teaches and who leads. But perhaps most importantly, without making more public and transparent the complexities of good teaching and identifying and rewarding excellence, systems will never develop a high functioning, coherent teacher and principal development system.

Lessons Learned Nationally and Globally

One thing is clear: Everything that needs to be done to create coherent systems of teacher and principal development is being done somewhere. This goes for both here in the United States

and in Colorado. But one is hard pressed to find all of the pieces of the puzzle in one school district or state. Let's first look at promising human capital developments – when it comes to recruitment, development, retention, and results.

Recruitment

First, with the help of non-profits like the New Teacher Project, a number of large urban districts (e.g., Chicago and New York) have made marked improvements in their school human resource divisions. As a result, few applications are lost, candidates are treated with more respect, and smarter budgeting allows for more efficient and earlier hiring.

Second, in a few districts, union leaders and administrators have found ways to reconcile differences over seniority transfer rights in order to recruit and place promising new teachers more strategically. This problem is not as intractable as the popular press and the policy pundits make it out to be. However, trust among district administrators and union leaders is a must to move this issue forward.

Third, in New York City, drawing on Teach for America and the NYC Teaching Fellows Program, non-traditional recruits have helped the district reduce shortages and eliminate the need for emergency hires. But a close look at the data reveals that, thus far, novice attrition rates have not improved sufficiently, and student achievement gaps have not been meaningfully closed.

Development

First, across the nation, the evidence is clear that sound recruitment and preparation strategies can be trumped by traditional school cultures that keep teachers from building communities of practice, working together across grades and subjects, or teaching an aligned curriculum that makes sense for students. Working conditions matter a great deal for teacher retention and student achievement – but much more needs to be done to understand which ones matters most for the “kids” and the educators who serve them.

Second, few school principals know how to create time in the school day for teachers to learn from each other – and the press for teachers to use assessment data to make informed teaching decisions is undermined by the lack of training. But groups like Battelle for Kids in Ohio and researchers like Harvard economist Richard Murnane have made marked progress in developing tools that help teachers and principals make wise data-based decisions. New Leaders for New Schools recruits nationally and offers a one-year residency for prospective principals, coupled with several years of on-site mentoring, as a means to find and train principals for high-needs schools. The work of New Leaders has inspired a wide range of district-based approaches to cultivating administrative talent for the principalship, but it is unclear how these new approaches transcend the administrator-teacher divide that can slow down reform.

Third, union-management collaboration is critical to advance the development of SMHC systems, but seldom are classroom teachers and principals invited to join in debate over whether and how such strategies can improve student learning and the profession.

Retention

First, school districts with strong urban teacher residency programs (e.g., Chicago and Boston) are showing strong retention rates for the new recruits who matriculate through them. These lighthouse programs, which require a one-year, paid internship before novices are allowed to teach solo, suggest that the right preparation, as well as incentives, matter when addressing the staffing problems of high-needs schools. However, too little is known about how to bring these successful programs to scale.

Second, few districts are looking at teacher working conditions as part of their approach to retaining teachers in high-needs schools. Some interesting research and development efforts are underway in Clark County School District (Las Vegas) and Charlotte-Mecklenburg (North Carolina) that could pave the way for districts to document, analyze, and improve working conditions in ways that really matter for teacher retention and student achievement.

Interestingly, our own CTQ research shows that working conditions can vary more within, rather than across, individual schools. Principal leadership, preparation for the job at hand, role in high stakes accountability (and teaching), team-level collegiality (cutting across grades and subjects), and school-community partnerships may be the working conditions “cornerstones” that matter most for teacher retention – and most importantly, student achievement.

Results

First, a number of large urban districts are re-designing their teacher and principal evaluation systems. For example, in Chicago, school scorecards, student and staff information systems, data dashboards, benchmark assessments, value-added data systems, and use of student, parent, teacher, and principal surveys will be used in re-visioned evaluation models.

Second, progress has been made to improve (and differentiate) the ways teachers are paid. However, little has been done to create meaningful roles for accomplished teachers to lead and work side-by-side with school and district officials, policymakers, and other education stakeholders to improve the quality of education at the local and national level.

Third, progress has been made in using value-added methods to determine which teachers are more likely to promote student achievement growth, but researchers caution using the measures for high stakes decisions about individual teacher performance because of the unstable statistical estimates.

Fourth, using value-added methodologies, entrepreneurial non-profits like Teach for America have studied their recruits to determine which ones are more effective – and have used the data for revamping their programs of preparation and support. The State of Louisiana is refining an evaluation system that judges teacher-preparation programs based on how much their graduates improve student performances in core areas, including reading, math and science. A number of “so-called” traditional, and diverse, teacher education programs, like those at Alverno College, Stanford University, UCLA, and Bank Street College have also begun to surface the specific elements of teacher education that make a difference for student achievement – but teacher preparation alone cannot solve America’s teacher and teaching quality problems.

Nevertheless, research around effective teacher education can create a firm foothold in efforts to advance improved teaching quality and student achievement. A recent study of both traditional and alternative pathways into teaching (in New York City), using a large and sophisticated data base, shows that teacher education programs that produce higher student achievement gains (in their first year of teaching) had the following characteristics: (1) extensive and well-supervised student teaching where there is strong “congruence” between the training experience and the first-year teaching assignment; (2) opportunities “to engage in the actual practices involved in teaching” (e.g., lesson study with colleagues); (3) opportunities to study and assess local school curriculum; and (4) a capstone experience where action research or data-based portfolios are used to make summative judgments about the quality of the teacher candidate.^{viii}

An International Model Worth Considering

Although the [Gates Foundation](#) expects to spend \$500 million working with U.S. districts to develop systems that retain and compensate teachers based on their effectiveness in educating students, I cannot point to a school district in the United States today that has put all of the teacher and principal development puzzle pieces together. The best current example of such a model may well be the development system found in [Singapore](#). A recent Aspen Institute report highlights key aspects of Singapore’s tightly coordinated SMHC system:

- a. Talented, carefully selected college students are paid to prepare as teachers in a residency model;
- b. Extensive new teacher support and reduced teaching loads are offered to novices;
- c. Every teacher enters into the Enhanced Performance Management System (which includes self-assessments as well as external reviews) and can earn bonuses of 10-30 percent annually for “outstanding contributions;”
- d. Teachers have several career tracks they can pursue, and each provides opportunities to earn bonuses;
- e. Principals are selected from outstanding teachers and undergo a uniform, rigorous program of study and performance assessments (but outstanding teachers can earn the highest salaries);
- f. Universities and school districts have joint funding to connect pre-service preparation and in-service professional development; and
- g. Universities are judged on how well their graduates can successfully teach.

Singapore, similar in size as well as student diversity to many large U.S. urban school systems, is one of the top-scoring countries on international assessments. Most analysts conclude that Singapore students do so well because they learn in schools that have a highly coherent system of teacher and principal development. There are no rapid-entry alternative certification programs like Teach for America in Singapore. Instead, incentives are in place to attract talented

recruits, prepare them well, and offer a multi-faceted career development system that provides meaningful rewards and career options for teachers to teach and lead. A [2007 McKinsey report](#) identified Singapore as one of the globe's top-performing school systems and concluded that state-funded teacher education, competitive base pay, and strong performance management systems were the key drivers of excellence in teaching and learning. Top-performing nations, more than anything else, take teacher training seriously.^{ix}

“It’s time,” Obama told the nation recently, “to put good ideas ahead of the old ideological battles; a sense of common purpose above the same narrow partisanship; and insist that the first question each of us asks [is] ‘What’s good for the country my children will inherit?’” Developing well-prepared, solidly supported educators to guide our children’s growth must be a top priority in this endeavor.

SMHC in the Denver Area: 10 Reasons for Optimism

Our investigations on behalf of the Rose Community Foundation’s efforts to promote effective human capital development in education give us considerable cause for optimism. In our interviews and interactions with a wide variety of Denver-area education leaders and young teachers, we learned a great deal about the promise and possibilities of creating more strategic systems of human capital. Ten findings stand out:

1. Teacher union leaders are looking for ways to ensure quality control in their profession, and share more of a common view of school reform than most observers suggest.
2. Several districts have established promising alternative preparation programs that increase the likelihood of finding and developing teachers, and keeping them long enough to make a difference for both student achievement and long-term school improvement.
3. Most local school districts now have some form of coaching or mentoring model in place — providing opportunities, in some cases, for teachers to serve in “hybrid” roles so they can lead their colleagues while still teaching students.
4. A number of promising initiatives, such as the Teacher Cadet Program (an innovative pre-collegiate approach designed to attract talented high school students to a career in teaching) and Denver’s ProComp (an innovative approach to pay teachers differently), can play a major role in creating a human capital pipeline.
5. Talented new teachers — some who entered teaching from the Teach for America program and others from more traditional but well-designed local university programs — intend to remain in teaching for a long career. However, they are not shy about what it will take for them to do so (including opportunities to teach students while also leading their colleagues and shaping improvements in policy and practice).

6. Young teachers aspire to start their own schools, where novices would work side-by-side with experts during their initial years, and everyone would have time to create and teach a more innovative and inspiring curriculum to their students.
7. State education leaders have a vision and potential tools for identifying effective teachers and spreading their expertise. They also share a strong willingness to align effective policies and programs, while abandoning those that burden teachers and principals.
8. Denver Public Schools is planning to emphasize *outcome*-based evaluations of their traditional and alternative pathways into teaching — using student growth metrics and structured classroom observations to determine which approaches are most effective.
9. Colorado is establishing unique data systems that will allow policymakers and practitioners to actually track where teachers and principals come from, where they work, how long they stay, and ultimately, how effective they are.^x
10. Colorado intends to build off the successful launch of Denver Public Schools’ new professional compensation system through an incentive fund to fuel innovation in other districts — with a primary focus on rewarding teachers differently in the most challenging schools. The Jefferson County Schools, where its administrators, union leaders, and school board have been studying the prospects for a new form of performance pay, is ready to move forward.

SMHC in the Denver Area: 10 Challenges to Confront

CTQ’s research surfaced many promising and potentially effective teacher and principal development efforts underway in Denver-area schools. We conducted our inquiries into these initiatives with a critical eye toward both their self-reported “lessons learned” and their potential for scaling-up a *strategically managed* human capital system.

1. There is no meaningful or consistent standard for what constitutes good teacher and principal preparation (e.g., how much student teaching should be expected or what results from teachers and principals are expected). No district has a comprehensive strategy to find, develop, and retain principals — and while a hodge-podge of recruitment and preparation efforts are underway in some locales, the career pathway for building administrators may be even more under-conceptualized than the pathway for teachers.
2. Only a few state education schools have been responsive to the need to prepare teachers for the real challenges of teaching the escalating numbers of diverse students in Colorado, including second language learners. Alternative certification programs do not fare much better. Model programs — like the Boettcher Teacher Program (pre-service residency program for Adams 12 and Mapleton), Partners in Education (innovative master’s for new teachers trained at CU-Boulder and several districts) and STAR (Cherry Creeks’ induction approach) — have track records of some success. However,

administrators are reluctant or do not have the tools to coordinate and replicate these successes across district lines.

3. Universities that are viewed by district administrators as preparing the best teachers for high-needs schools focus primarily on one or two school districts.
4. District officials and principals as well as new teachers and union leaders are in unanimous agreement: To address challenges of teaching in the 21st century, new teachers — regardless of their pathway into the classroom — need more pedagogical support and mentoring. But districts struggle to find time, mentors, or ways to create the organizational structures necessary to help them.
5. Despite very high teacher turnover in the Denver area, particularly in high-needs schools, leaders whom we interviewed have not been focused on working conditions — especially those supports necessary for effective teaching in 21st century schools. Some districts struggle with retaining teachers and figuring out how to maintain the staff stability needed in challenging schools. No one locally could identify readily the kind and number of expert teachers needed to turn around a high-needs school.
6. New teachers want more dynamic and hybrid roles so they can lead both inside and out of the classroom and work side-by-side with school and district officials, policymakers, and other education stakeholders to improve the quality of education at the school, local, and national level. Union leaders are well aware of new-teacher needs yet have few plans — and fewer resources and tools — to act on them.
7. Considerable investments have been made in carving out leadership opportunities for teachers as instructional coaches, but all too often the coaching positions morph into quasi-administrative roles with little or no contact with students, separating the “teacher leader” from the daily teaching and learning environment
8. Younger teachers are interested in creating and leading their own schools, freed from bureaucratic constraints, and are willing to help transform their unions so that their collective voice is heard and embraced in efforts to improve teaching and learning.
9. Administrators and union leaders both seek more meaningful evidence-based teaching evaluation and are willing to use standardized tests — as long as they part of a larger set of more comprehensive indicators of teaching performance and student learning. But there appears to be too few options to move forward, together.
10. Denver is designing a system to manage and evaluate its human capital pipeline, but there are currently few mechanisms or opportunities for other districts to join them in this important effort.

A Brief Analysis and Four Potential Strategies

My analysis suggests that there are three core problems to be addressed: (1) No district has a definition of "outstanding teaching" and a means to identify outstanding educators sufficient to drive an SMHC system for teachers and principals; (2) There is not enough coherent information available to allow systems to strategically manage human capital systems, either within or across Denver-area school districts; and (3) There are too few opportunities for grassroots change agents — mainly the next generation of teachers and principals — to lead the development of strategically managed human capital systems.

Despite the complexity of the problem and austerity of the times Colorado can move forward, and move forward aggressively. The following four approaches are built from sound evidence, the wisdom of national experts, and the insights of some of the state's thought leaders and forward-thinking practitioners.

1. Develop clear expectations for 21st century human capital system in Colorado— and use the state as a "recruiter-in-chief" in advancing (and marketing) the profession, leveraging promising local initiatives, and forging unique collaborations among currently disconnected school districts and foundations. *The state can play a major role in developing connections among high leverage human capital strategies (e.g., the pre-collegiate Cadet program, scholars programs for both traditional and alternative recruits, and career paths and performance pay for teachers and principals).*
2. Create incentives for "education schools" (both traditional and alternative providers) to produce fewer new teachers, but with deeper expertise, while encouraging collaboration and sharing of resources among them. *Reward the idea that education schools can do more by doing less.*
3. Support a SMHC Data Center — whereby a consortium of districts and universities would work together to assemble like-kind data on teacher and principal supply and demand, studies of educator turnover, and value-added data on teachers and schools as well as the conditions under which teachers and principals work. *This consortium would build off the cutting-edge work underway in the state (CDE growth model) and in DPS, where leaders are assembling new data but have no means to promote replication and provide data so that districts can find and develop the right people for the right job — and ensure they have the conditions in place so they can be effective (and students learn more).*
4. Establish a network of teacher and principal leaders who can help shape the strategic management of human capital as well as offer fresh ideas on transforming teacher education, staffing high needs schools, and developing multiple measures for student achievement and educator accountability. *The network would give voice to those who will ultimately lead the implementation of 21st century reforms.*

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- ⁱ Odden, A. and Kelly, J. (2008) *Strategic management of human capital in public education*. Madison WI: CPRE.
- ⁱⁱ Sanders, W.L. & Rivers, J.C. (1996). *Cumulative and residual effects of teachers on future student academic achievement*. Knoxville, Tenn.: University of Tennessee Value-Added Research and Assessment Center; Cavalluzzo, L. (2004). *Is National Board Certification an effective signal of teacher quality?* Alexandria, Va.: CNA Corporation; Goldhaber, D. & Anthony, E. (2004). *Can teacher quality be effectively assessed?* Seattle, Wash.: Center on Reinventing Public Education, University of Washington; Humphrey, D.C., Koppich, J.E. & Hough, H.J. (2005, March 3). "Sharing the wealth: National Board Certified Teachers and the students who need them most." *Education Policy Analysis Archives*, 13(18).
- ⁱⁱⁱ Hess, R. (2008). *The human capital challenge: Towards a 21st century teaching profession*. Paper prepared for the Gates Foundation.
- ^{iv} The New Teacher Project and the Annenberg Institute for School Reform have forged considerable progress of late in helping urban school districts create more effective HR systems.
- ^v See Drew Gitomer's recent analyses of the improved academic ability of teacher education candidates and graduates at http://www.ets.org/Media/Education_Topics/pdf/TQ_full_report.pdf
- ^{vi} Consortium for Policy Research in Education. (2008). *Strategic management of human capital case studies*. Madison, Wisconsin: Author.
- ^{vii} Educational Testing Service (2007). *Teacher quality in a changing policy landscape: Improvements in the teacher pool*. Princeton, NJ: Author.
- ^{viii} Boyd, D., Grossman, P., Lankford, H., Loeb, S. and Wyckoff, J. (2008). *Teacher preparation and student achievement*. Albany: Teacher Policy Research, SUNY-Albany.
- ^{ix} McKinsey Company (2007). *How the world's best performing school systems come out on top*. http://www.mckinsey.com/locations/ukireland/publications/pdf/Education_report.pdf
- ^x The recently developed "growth model" — using Colorado Student Assessment Program (CSAP) results from one year to the next — compares each student's performance to their peers in the same grade throughout the state who had similar scores in past years and calculates a growth percentile.