



STRATEGIC MANAGEMENT OF HUMAN CAPITAL

ALLAN R. ODDEN AND JAMES A. KELLY  
CO-DIRECTORS

# WHAT IS SMHC?

BY

ALLAN ODDEN AND JAMES A. KELLY  
CO-DIRECTORS, SMHC

June 2008

The analysis reported in this paper was supported by grants from the Carnegie Corporation of New York and the Bill and Melinda Gates Foundation to the Consortium for Policy Research in Education (CPRE) and the Wisconsin Center for Education Research, School of Education, University of Wisconsin-Madison. The opinions expressed are those of the authors and do not necessarily reflect the view of the institutional partners of CPRE, the Carnegie Corporation of New York, the Bill and Melinda Gates Foundation, the Wisconsin Center for Education Research or the University of Wisconsin-Madison.

**STRATEGIC MANAGEMENT OF HUMAN CAPITAL (SMHC)**

A Project of the Consortium For Policy Research in Education (CPRE)

Wisconsin Center for Education Research • University of Wisconsin-Madison

1025 West Johnson Street, Suite 653 • Madison, WI 53706-1796 • Phone 608.263.4260 • Fax 608.263.9390

## WHAT IS SMHC?

By

Allan Odden and James A. Kelly

The strategic management of human capital in public education concerns the acquisition, development, performance management and retention of top talent in the nation's schools, particularly large, urban school districts. The Strategic Management of Human Capital (SMHC) is also the name of a new action project of the Consortium for Policy Research in Education (CPRE), headquartered at the CPRE offices at the University of Wisconsin-Madison.<sup>1</sup>

SMHC has **one major goal**: To dramatically improve student achievement in America by substantially improving instructional practice, and the effectiveness of teachers and principals, focusing on students in the country's largest 100, mostly urban districts.

Although there are widespread and urgent demands to improve student achievement in all of the nation's schools, the improvements needed are arguably most acute for students in the largest 100 districts, particularly those urban districts with significant concentrations of students from low-income and minority backgrounds. Producing large and authentic improvements in student learning in these districts presents the **toughest educational challenges** in the country. These tough challenges are **worthy of the finest talent and management** that can be obtained in America. One of the main objectives of SMHC is to identify strategies, policies and practices that can deliver, distribute fairly and retain top teaching, leadership and management talent in these city districts and schools.

**Two aspects of the strategic management of human capital** are critical to dramatically improving the performance of the country's largest school districts. **The first is talent per se.** One of SMHC's primary objectives is to identify how the highest quality human capital – talent – can be recruited and retained as teachers, principals, and human capital management leaders in the nation's large, urban, school districts. These systems need top talent at all levels, from teachers to top district leadership, to positions in the central office such as the human resource management systems, to leadership positions in schools, and to instructional leadership for every classroom and teaching context. Strategies to recruit, place, develop and retain top talent should be one prime emphasis of districts' human capital management strategies. Initial ideas for accomplishing this task will be drawn from case studies of jurisdictions already moving forward on this agenda, such as Boston, Chicago, Fairfax County, Long Beach, Minnesota and New York City; from organizations working to recruit, place and develop top talent, such as Teach for America, the New Teacher Project, and New Leaders for New Schools; and also from best practices in the private and non-profit sectors.

---

<sup>1</sup> The co-directors of SMHC are Allan Odden, Professor of Educational Leadership and Policy Analysis at UW-Madison's School of Education and Co-Director of CPRE, and James A. Kelly, the Founding President of the National Board for Professional Teaching Standards. Key staff include UW/Madison Business Professor Emeritus Herbert Heneman, Senior Researchers Anthony Milanowski, Steve Kimball and Sarah Archibald, all in the UW-Madison CPRE offices, Professor Margaret Goertz in the CPRE offices at the University of Pennsylvania, and independent consultant Dr. Julia Koppich; all key staff contributed to the development of this paper.

The **second issue is strategic management**. It is not sufficient for districts just to find top talent and turn them loose. As the private sector has learned over the past decade, the highest performance organizations not only recruit and retain top talent, but also manage them in ways that support the strategic directions of the organization. Thus, SMHC also addresses what strategic management of talent, or human capital, should look like in public education. As we describe further in this document, SMHC addresses how all aspects of the human resource management system (typically called personnel administration in most school districts) can be **aligned**, including recruitment, screening, selection, placement, induction, professional development (focused on curriculum and classroom practice), evaluation, compensation and promotion into instructional leadership. The goal is to redesign the entire human capital systems so that top talent is acquired, strategically placed and equitably distributed in key roles in schools and districts, developed and retained over time, all driven by metrics on teacher and leadership performance and effectiveness.

The single integrated goal has two outcomes by which progress can be measured: student performance and teaching performance, the latter indicated by measures of instructional practice and effectiveness. Though more work needs to be done, the country has knowledge, tools and instruments for measuring student outcomes, and we encourage states and districts to use measures of student learning that reflect capacities of students to use content to solve problems. On the other hand, measuring teachers' instructional practice and effectiveness, and using the measures as a management tool is only at the beginning stages. If one objective of strategically managing human capital in education is to produce better classroom instruction, then an important objective of SMHC is to suggest valid ways to measure teacher's classroom instructional practice, and how to redesign human capital management systems to develop and ensure that the highest quality instruction is provided in all classrooms. Further, to be considered valid, the elements of instructional practice that are measured and used in this way must also be linked to improvements in student achievement.

The overall management challenge portion of the strategic management of human capital, then, is to use the data from the measurement of both teaching performance and student performance to guide management decisions over time, including talent recruitment, selection and placement, and also to support and reward the individuals who acquire and deploy in classrooms the kinds of instructional practices that boost student learning. Though conceptually straight forward, these actions will require deep seated changes in the ways most districts have operated; the changes likely will generate controversy and will require strong educational leadership, aggressive performance management and broader political support to move successfully forward.

To be **strategic**, human capital management practices must be aligned with and devolve from a district's educational improvement strategy. The strategic management of human capital and the education system's educational improvement strategy are inextricably linked. Education systems must have a powerful and coherent educational improvement strategy in order to improve student academic achievement (Childress, Elmore & Grossman, 2006; Childress, Elmore, Grossman & Johnson, 2007).<sup>2</sup> But education systems cannot implement a powerful educational improvement strategy unless they have both the management and teaching talent to execute the

---

<sup>2</sup> We initially take no position on the nature of the district or state instructional improvement strategy; the test over time is whether it actually boosts student achievement by large increments.

complex actions it requires. Conversely, top management cannot improve student academic achievement just with talented people, high expectations and random acts of good practice. To be effective top talent must be professionally managed around a well-designed educational improvement strategy so that talented educators turn their aspirations and talents into instructional practices that boost student learning to high levels.

This approach to the strategic management of human capital in public education draws directly from emerging approaches to talent management and development in the private sector, and in this paper we show how these practices fit the education system (Lawler, 2008). Current thinking in the private sector emphasizes the importance of (a) the strategic management of human capital in carrying out organizational strategies to improve performance and (b) organizational strategy as a basis for a human capital management program design, paralleling points we will make in this paper (Becker, Huselid, & Ulrich, 2001; Boudreau & Ramstad, 2007; Bowen & Ostroff, 2004; Lawler, Boudreau & Mohrman, 2006; Wright & McMahan, 1992). During the past decade and a half, many private sector organizations concluded that people, talent and human capital *per se* needed to be placed on their strategic agendas (Wright, Dunford & Snell, 2001). They further found that strategic human resource management strategies should be formally linked vertically to their organizational improvement programs and horizontally across all the specific HR elements (Gratton & Truss, 2003). Further, multiple analysts have shown empirical links between these kinds of aligned human capital management practices and improved organizational performance in private sector organizations (e.g., Arthur, 1994; Huslid, 1995; McDuffie, 1995; Ulrich, 2001; Wright, Gardner, Moynihan & Allen, 2005). The relationship between these practices and the performance of educational organizations has not been given much attention. However, the recent study of the recruitment strategies in New York City, which showed that those strategies had indeed improved the quality of teachers and the performance of students in the schools where those teachers had been placed, is an example of the kind of research that would be needed to document the efficacy of the strategic management of human capital in education (Boyd, Lankford, Loeb, Rockoff & Wyckoff, 2007). As districts implement broader and deeper versions of the strategic management of human capital, beyond recruitment, studies like these should be conducted to document empirically the power of such practices to improve the performance of students and teachers.

This document is organized into four sections. Section 1 identifies the problems addressed by SMHC. Section 2 shows how a set of strategic human capital management systems can be developed based on education system strategies to dramatically improve student academic achievement. Section 3 describes strategic human capital management in more detail and explains how it can be designed to help education systems implement their educational improvement strategies. This section shows how a strategic human capital management system can help education systems acquire, develop, and retain the talent with the appropriate expertise to implement the educational improvement strategy in schools and classrooms. Section 4 concludes with a summary of several contextual issues and identifies implications for policy and practice at the school, district, state and federal levels.<sup>3</sup>

---

<sup>3</sup> In the future, we also will have in additional documents with lessons learned from case studies of leading edge strategic management of human capital initiatives in districts and states around the country that will illuminate various ways school systems can move in this direction, including the organizational and political challenges that must be addressed in these efforts, as well as indicators of impact and success.

## 1. THE NEED FOR STRATEGIC MANAGEMENT OF HUMAN CAPITAL IN PUBLIC EDUCATION

The United States is engaged in an ambitious and far-reaching education reform agenda. Leaders from business, foundations, higher education, and government believe improved school performance is essential and possible. Most K–12 leaders accept the need for improvement and reform; many have already produced impressive performance gains. The goal is to educate all children, and especially low-income and minority children, to world class performance standards, enabling them to know, think, problem-solve, and communicate at high levels in core subjects (i.e., mathematics, science, reading/English/language arts, history, geography).

However much improvements in other social institutions and reduction in poverty can help, most of the burden for achieving higher levels of student performance rests with state and local K–12 public education systems, in which 85 percent of all children are educated. As noted, the project will focus on the 100 public school districts with the largest enrollments, most but not all of which are urban districts with concentrations of children from low income and minority families.

Most agree that deep-seated changes in the education system will be needed to provide the powerful instructional services required to produce the higher and more equitably distributed student performance levels desired by both standards-based education reform and the federal No Child Left Behind (NCLB) act. To achieve such major changes in the system and its performance, the schools will need talented and well-prepared professionals – teachers and leaders – to implement the strategies. But the current system does not recruit, train, hire, induct, deploy, develop, retain or manage the top talent, i.e., the human capital, needed to accomplish these goals. And these problems are most acute in the largest urban districts.

Over the past couple of decades, several leaders of urban school districts across America as well as young graduates from some of the nation’s top colleges and universities concluded that multiple aspects of the human capital systems in urban school districts were not functioning in ways that would help the districts make the changes needed to improve instruction and boost student learning. These leaders, many of whom are members of the SMHC Task Force, concluded that the training and recruitment systems were broken, as few districts actively recruited talent from the best universities within a reasonable distance of the district, but simply hired, unfortunately at the end of the summer, the talent – often in short supply – that had applied and kept their application active through the spring and summer, and sometimes into the fall. Most of the districts had some combination of seniority bumping practices and lax staffing strategies, which meant the staffing systems were broken. They concluded the professional development systems were broken when they found their districts were sending millions of dollars on professional development with no traceable impact on instruction or student learning. They found that almost no teachers were terminated because of poor performance, that termination processes were expensive and rarely successful, and also concluded that the performance evaluation systems were broken. And because the pay system provided increases for factors not linked to student learning, and had no factor directly linked to student performance gains, they concluded the compensation systems were broken as well.

Research has documented these and other problems with the human capital management systems—sometimes referred to as *human resource management* (HRM) systems—in education that limited the power of standards-based reform. These problems include:

- *Lack of a human capital management strategy and alignment of HRM practices to that strategy.* Since research convincingly demonstrates the impact of teacher effectiveness on student achievement, district human capital management programs should be designed to focus on the teacher competencies (knowledge and skills) that contribute to improved student achievement (Heneman & Milanowski, 2004, 2007), with the goal of attaining alignment between the content of the human capital development practices and teacher competencies, including compensation policies (Odden & Wallace, 2007a, 2007b). Unfortunately, HR practices seem to be based on convenience, imitation, contract constraints, and administrative whim, particularly in urban districts (e.g., Campbell, DeArmond, & Schumwinger, 2004).
- *The difficulty many districts have in staffing high-need (e.g., high-poverty, low-achieving) schools with quality teachers (Ingersoll, 2003; Lankford, Loeb, & Wyckoff, 2002; Murphy & DeArmond, 2003).* Most teachers prefer to work close to where they grew up, generally not urban areas (Boyd, Lankford, Loeb, Rockoff, & Wyckoff, 2007). Those hired tend to move from low-achieving, high-poverty schools to less challenging assignments within their districts (Guarino, Santibanez, Daley, & Brewer, 2004). And, district HR practices such as collectively bargained, seniority-based transfer provisions and inefficient selection processes channel more experienced teachers out of, and less qualified teachers into, high-need schools (Neild, Useem, Travers, & Lesnick, 2003; Useem & Neild, 2001).
- *High teacher turnover, particularly in urban districts (Ingersoll, 2001, 2003).* High turnover, in turn, inhibits the development of faculty learning communities, wastes resources on repeated filling of the same position, and, together with seniority-based transfer and assignment provisions, often results in the least experienced teachers teaching the highest-need students. The full costs of teacher turnover are not trivial (Milanowski & Odden, 2008).
- *Chronic shortages of qualified math, science, and technology teachers (Blank & Langesen, 2001; Murphy & DeArmond, 2003; Schorling, 1947).* These shortages are exacerbated by (a) salary systems that do not allow pay to vary by subject (Goldhaber & Player, 2005; Milanowski, 2003); (b) licensing requirements that add to the cost of career preparation and discourage initial entry for those with the needed subject knowledge; (c) unsophisticated district HR systems designed for labor surpluses rather than shortages; and (d) working conditions that are not appealing to people highly trained in technical fields.
- *The difficulty nationwide some district have in attracting the “best and brightest” to teaching and using nontraditional sources of teacher supply (e.g., career changers; people wanting only a partial career in teaching, such as those in Teach For America; young, smart adults disillusioned with the bottom-line focus of private sector employment, like many recruited by the New Teacher Project).* Barriers include bureaucratized work environments, pay systems that reward seniority and not performance, and district HR systems that slow down the hiring process (Levin & Quinn, 2003) and appear to discount high academic ability as a criterion for teacher selection.
- *Professional development systems that spend upwards of \$6000-8000 per teacher per year, with little impact on instructional practice, and very little focus on the core subjects of mathematics, science, reading and writing (Miles, Odden, Archibald & Fermanich, 2004).*
- *Compensation systems that pay for factors not linked to student learning gains – years of experience and miscellaneous education units, no differentiation for areas experiencing*

teacher shortages, and few elements linked to the core goal of the system – student performance (see Odden & Kelly, 2002; Odden, 2008; Milanowski & Odden, 2008).

The leaders we referenced above concluded that with such unproductive and dysfunctional human capital management systems, urban districts could not expect to dramatically enhance their performance over the short, medium, or long term. Further, they concluded that if urban districts were to make headway on their ambitious education reform goals, they needed to revamp the systems that trained, recruited, inducted, deployed, developed, evaluated, paid, and managed its strategic human assets—high-quality teachers and school and district leaders.

As a result, they initiated a series of new efforts. Districts like Chicago began actively recruiting teachers from the best colleges and universities, including universities within a day’s drive from the city. Second, talented college graduates committed to education reforms and created organizations such as Teach For America, The New Teacher Project, and New Leaders for New Schools, organizations that began to recruit individuals educated in the country’s top universities and train them for teaching and leadership positions in the nation’s urban districts. Third, many urban districts (e.g., Chicago and New York City) actively partnered with these organizations as part of their new strategies to recruit top talent into their systems. Fourth, many urban districts (e.g., Boston, Chicago) created their own teacher and principal training programs, feeling that they could do better than the universities from which they had been obtaining most of their new teachers and principals. Fifth, other urban districts and even states (e.g., Arizona, Atlanta, Charlotte-Mecklenburg, Denver, Long Beach, Minnesota, Miami-Dade County, and Fairfax County) began to reengineer and restructure their overall human capital management systems to align them more closely with their educational improvement strategies. Sixth, the Broad Foundation began training superintendents in performance management skills for large urban districts and partnered with the Dell Foundation to embed performance management more deeply in management systems in large districts. Broad also has trained a new group of HR managers for urban districts, drawing from talented graduates of MBA and public policy programs.

These initiatives were developed while state standards-based education reform was maturing, NCLB began to be implemented, and several other reforms to improve teaching quality were launched, including multiple efforts to make teacher pre-service training more rigorous, the creation of the National Board for Professional Teaching Standards and the CPRE work on designing new forms of teacher compensation.<sup>4</sup> CPRE’s work on teacher compensation was complemented recently by the federal government through its Teacher Incentive Fund that helps districts recruit, retain, and reward teachers and principals in high-poverty, high-minority enrollment schools and/or in subjects with teacher shortages, such as mathematics and science.

Though all these initiatives were focused on enhancing teaching quality, they were not very coordinated or linked, which detracted from their potential impact. What is needed now is an effort to orchestrate all these promising efforts into a much more strategic approach to the acquisition, development, motivation, and retention of talent in education, i.e., to transform these and other related efforts into strategic management of human capital systems in public education. We need to learn from the urban school leaders and founders of talent-recruiting organizations, and from other innovators. The pioneering work being done by these leading-edge organizations, districts, and states needs to be documented, disseminated, and then adopted and deployed in

---

<sup>4</sup> SMHC Co-Director James Kelly was the founding president of the National Board and SMHC Co-Director Allan Odden led the CPRE work on teacher compensation.

other large school districts, and indeed, in all districts. More broadly, local and state policymakers need to define and institute ways to incorporate these kinds of teacher and principal initiatives into a more strategic approach to human capital development in education.

Currently, there is no group or organization taking the lead in trying to guide the nation through this process. We have designed this SMHC project to remedy that void.

## **2. THE STRATEGIC MANAGEMENT OF HUMAN CAPITAL AND EDUCATIONAL IMPROVEMENT**

In order to improve student achievement, school districts need a powerful and ambitious education improvement strategy. We call that strategy a district's "educational improvement strategy." To make human capital management strategic, it needs to be linked vertically to the educational improvement strategy, and horizontally across all its key elements – recruitment, selection/placement, induction, mentoring, professional development, performance management/evaluation, compensation and instructional leadership – so that it produces the people with the knowledge and skills needed to execute the overall improvement strategy. Diagram 1 depicts how the strategic management of human capital is linked vertically to and evolves from the district's educational improvement strategy. Private sector companies applying a strategic approach to human resource management design those programs directly from their organizational improvement strategies (Boudreau & Ramstad, 2007; Lawler, 2008; Lawler, Boudreau, & Mohrman, 2006; Gratton & Truss, 2003).

### **The Need for Improved Organizational Performance**

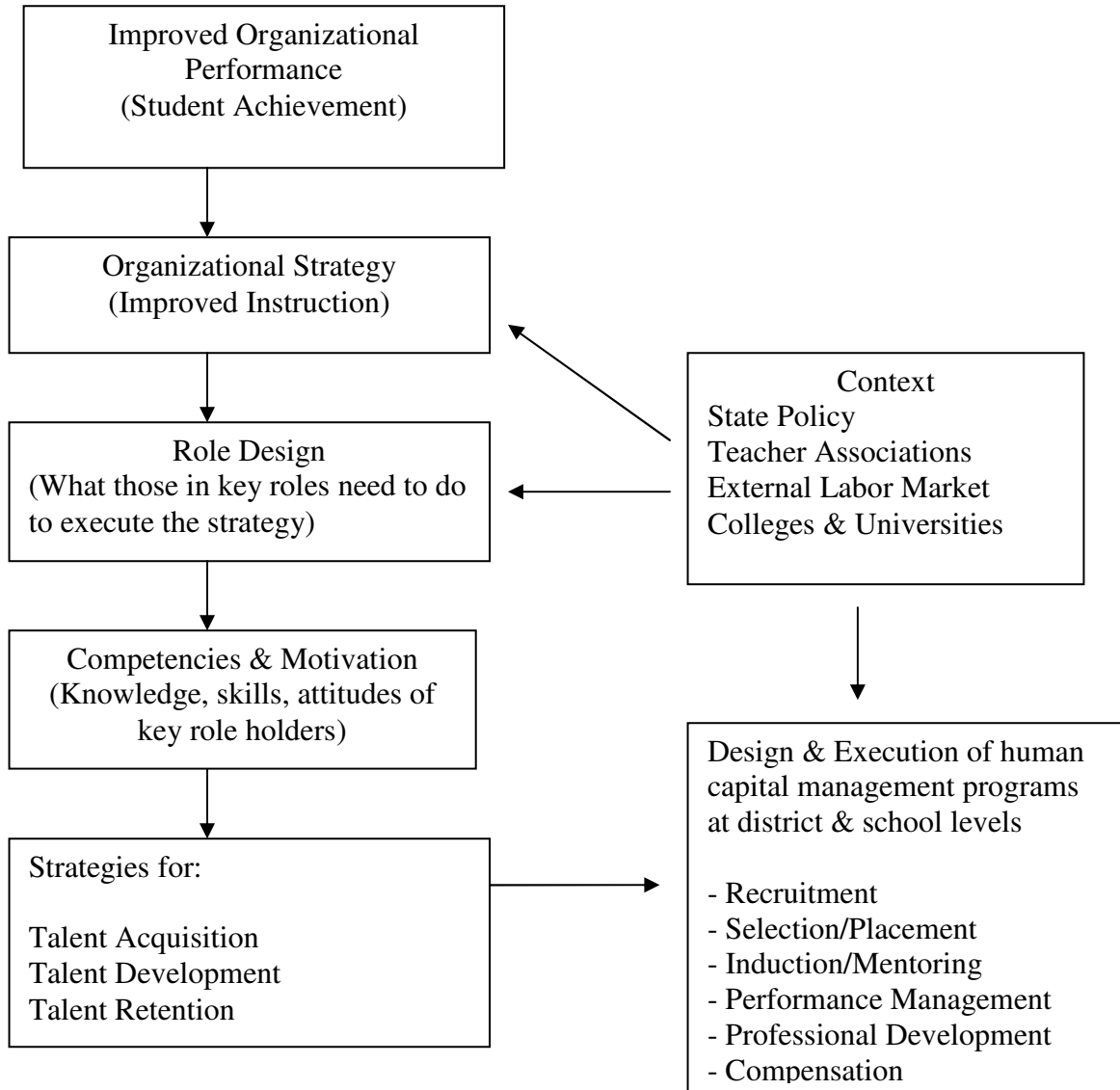
Developing a strategic approach to managing human capital starts from understanding and accepting the need to dramatically improve organizational (in our case, school, school district or state) performance, specifically student achievement. We do not need to dwell on the point that student achievement in America, generally, is not where it needs to be, to say nothing about the lower levels of achievement in the nation's large, urban districts. Indeed, many advocates for education reform from all levels and segments of our society continue to press for higher levels of student performance, and reducing the achievement gap between majority students and students of color and from lower income backgrounds. The degree of improvement needed is large, and even larger in the nation's big, urban school districts.

However, large improvements are, in fact, possible. There are examples of education systems all across the country that have literally doubled student performance over a 4-6 year time period (Odden & Archibald, forthcoming). Moreover, there are numerous examples of dramatic improvement in student academic learning in districts and schools with high concentrations of students of color and/or from lower income backgrounds (see also, Chenoweth, 2007; Childress, Elmore, Grossman & Johnson, 2007). These education systems started their improvement efforts first with a realization that quantum levels of student performance gains were needed. There also are examples of large improvement in student performance in other countries (Barber, 2007), as well as examples of high levels of student performance in countries politically like the United States but with different education system organizations (McKinsey & Company, 2007).

We cannot over stress the importance of this beginning realization. The changes required by SMHC are difficult and complex technically, organizationally, politically, and in most cases, financially. There need to be strong reasons to make these changes. And those reasons should be strategic. The starting point for these changes is the understanding that organizational performance – student achievement – needs to be increased not just marginally, but by quantum levels. A deep understanding of the need to improve school system performance can be the motivator to stimulate creation of both a powerful education improvement strategy and an aligned human capital management strategy.

**Diagram 1**

**How Performance Goals Determine  
Strategic Human Capital Management Program Designs**



Of course the \$64,000 question is how to make districts aware of the need to dramatically improve student performance. No one has the clear answer to this important question. Answers include tougher accountability measures, more comprehensive incentives, changes in governance (e.g., mayoral control, decentralized school management, charter schools and vouchers), business sector pressure, etc. But without some felt pressure to make large improvements in student performance, districts are probably unlikely to put in place the changes required to have a full blown strategy for strategically managing its human capital. However catalyzed, districts must first feel the need to make quantum improvements in the level of student achievement.

### **An Educational Improvement Strategy – The Key to Improved Performance**

Once an understanding that very substantial improvements in student performance are needed, education systems then need to figure out how to do it, i.e., to create their “educational improvement strategy.” All the schools and districts in the Odden-Archibald, Chenoweth and Childress-Elmore-Grossman-Johnson books focused on improving their curriculum and instructional programs as a core of their improvement strategies. Childress, Elmore and Grossman (2006) make the same point, specifically focusing on urban districts – the route to significant improvements in student achievement is a coherent and multifaceted set of strategies to improve instructional practice.

There are many elements of an educational improvement strategy. A strategy might include improved instructional materials, curricular alignment, enhanced use of technologies, new school structures (such as radically reducing the multiple layers of bureaucracy found in most urban districts, or moving to K-8 schools instead of separate elementary and middle schools), extensive professional development, multiple extra-help strategies such as teacher tutoring and summer school, or more parent involvement.

An educational improvement strategy might also include new approaches to governance and management. Mayoral control of schools is rising in practice across the country. Further, New York City has created the most comprehensively and well designed decentralization strategy that has ever been tried in the United States; schools manage budgets, select staff and decide on their instructional approach by affiliating with one of a variety of Educational Support Organizations (ESO), Local Support Organizations (LSO) or Partnership Support Organizations (PSO), each of which provides assistance on instructional issues. Similar strategies were tried previously by many districts that partnered in the 1990s with the New American Schools (NAS).

A key element of most educational improvement strategies is an explicit instructional vision, i.e., a finely articulated understanding of effective instructional practice. This vision is arguably at the center of the core of the activities that comprise the educational improvement strategy. This instructional vision can be individual, or for a single school (Chenoweth, 2007); a core vision for groups of schools such as those affiliating with the LSOs and PSOs in New York City or with specific NAS designs or with Charter School Organizations such as Knowledge is Power Program (KIPP), ASPIRE or New Visions; or district-wide such as was the case in New York City Community District #2 (Elmore & Burney, 1999), Long Beach (Childress, Elmore, Grossman & Johnson, 2007), Jacksonville (Supovitz, 2007) and Madison (WI) (Odden & Archibald, forthcoming).

By effective instructional practice we do not mean just good pedagogy. We mean a set of instructional strategies that are content-rich, linked to a rigorous curriculum program and produce high levels of student achievement including students from low income or minority backgrounds. Such instruction makes continual use of student performance data, including formative and benchmark assessments, state accountability test scores, common assessments for curriculum units or common end-of-course exams in high school. Teachers, ideally acting in collaborative teams review student assessment data, plan instructional approaches, implement those instructional plans, discuss the results, determine which teaching strategies were the most effective, which were not, and modify the strategies so that next time they are more successful. Student performance is a foundation for curriculum and instructional planning, and the prime data for assessing the effectiveness of instructional practice.

Although the view of any specific set of effective instructional practices can evolve as the improvement strategy is implemented, education systems also could start with existing standards for high-quality instruction. For example, almost all states and hundreds of districts (including nearly all of those represented on the SMHC Task Force) provide incentives to teachers who earn National Board Certification (NBC) from the National Board for Professional Teaching Standards. These NBC teachers have demonstrated that their instructional practice reflects the Board's teaching standards and that their actual implementation of that instruction meets the high and rigorous standards set for Board Certification. The Board's teaching standards as set forth in its 1989 policy statement, *What Accomplished Teachers Should Know and Be Able To Do*, and codified in some 24 separate fields of teaching specialization, could be adopted and used by districts as their vision of quality instructional practice. Odden and Wallace (2007a) argued in their book on new structures for teacher compensation that the Board's teaching standards are:

[..... precisely what characterizes the instructional practice of teachers in countries that have students achieving to higher levels on international assessments of student learning (Hiebert et al. 2005; Schmidt et al. 2001; Stigler & Hiebert 1999). And we believe that it is this kind of instruction ... required to achieve the student achievement goals and objectives of most states and school districts around the country.....

The Board's teaching standards comprise one set of teaching standards. Others include the Danielson (2007) Framework for Teaching, the Teaching Advancement Program (TAP), as well as the Beginning Educator Support and Training (BEST) Program standards used by Connecticut for providing that state's professional license to teachers and around which they encourage local school districts to structure professional development and ongoing teacher evaluation. KIPP, ASPIRE, New Visions and other charter school organizations also have their own view of effective instruction, as does The New Teacher Project and Teach for America. Long Beach and New York City's Community District #2 each created their own view of effective instruction.

Our point is simply this: An effective educational improvement strategy needs to include an explicit and well articulated vision of effective instructional practice. Effective instruction is not left to individual preference; it is not voluntary. It is systemic to the organization (i.e., school, groups of schools, district or state) and a central part of the overall improvement strategy, particularly in the SMHC context. Further, as we argue below, the instructional vision can then drive the elements of the organization's human capital or human resource management systems.

Indeed, one study of the use of HR metrics, including special metrics developed on instructional practice, found that centralized professional development was more effective than site-based professional development and that consistency of effective instructional practice across classrooms within schools produced higher levels of student performance (Bassi & McMurrer, 2007).

What education systems should not do, even though many already do because of oversight, is have multiple visions of instruction embedded within their organizations. In most instances we have studied, the instructional content of the induction and mentoring, professional development and evaluation systems are rarely aligned, and thus send mixed and confusing signals to teachers about what instructional practices to acquire. As argued below, when education systems create an instructional improvement strategy that includes a view of effective teaching strategies, those strategies should be embedded in all aspects of the system that have instruction at their core – day-to-day teaching, induction, professional development, mentoring and evaluation.

Finally, most scholars, practitioners and policymakers would agree that knowledge of effective instructional practice is strongest for the elementary grades in reading and mathematics, and somewhat less strong for middle and high schools. Therefore, more research and school experimentation are needed to find more effective instructional practices for the core secondary school subjects so that these practices can also be embedded in districts' instructional improvement strategies (Donavan & Bransford, 2005a, 2005b, 2005c).

## **Key Roles**

Once they have defined it, districts next need to consider who will carry out the organizational improvement strategy. This means identifying the key roles that are needed to help it succeed. We believe that in almost all districts these key roles at the school level are those of teacher, teacher leader, and principal.<sup>5</sup> These are key because instruction happens inside classrooms and within schools. Teachers, however, implement multiple roles. There is the role of the classroom teacher. But then as both Chenoweth (2007) and Odden and Archibald (forthcoming) show, there are multiple teacher instructional leadership roles that can include grade level leaders; coordinator of multi-grade teacher teams, such as coordinator of the primary (K-3) teachers or the upper elementary (grades 4-6) team; school-wide instructional coach, instructional facilitator, professional development leader, curriculum team coordinator or mentor; and many other teacher leadership roles that schools are creating depending on how they organize the delivery of instruction and its improvement over time. Principal roles can include lead principal, assistant principal for curriculum and instruction, as well as assistant principal for school management, a role that emerges when the principal personally is involved in instructional leadership roles. Principals are also the lead managers of human capital at the site. In this paper on SMHC, we focus mostly on teachers but show how the same arguments can be made for principals.

## **Key Competencies**

After the key roles are identified, the competencies needed to carry out the strategy by people in the roles become the focus. For each key role, a set of needed competencies must be identified.

---

<sup>5</sup> There also are key district roles including that of the superintendent, chief academic officer, the SMHC office and the office of professional development. Initially, the SMHC project will focus on key school roles.

The core competency for each teacher clearly would be instructional expertise and, over time, we want teachers' expertise to increase so that higher and higher performance levels can be realized. Here is where an explicit instructional vision can be important in delineating the range of expertise that is needed, and over time, a set of rubrics that could indicate the level of performance of each individual teacher aligned with that instructional vision. In addition to content-rich instructional expertise, each teacher leadership role also would have a set of required competencies specific to that role. It should be clear, moreover, that the description of teacher leadership roles overlaps instructional leadership roles of the principal or assistant principal, thus potentially providing a career ladder for teachers as well as a leadership development pathway through which schools "grow" school-wide and district leaders over time.

### **Talent Strategies and Human Capital Programs**

Once the key teacher and principal roles are identified, together with their requisite knowledge, skills and expertise, or competencies, the next step in the development of a strategic management of human capital system is identifying strategies for talent acquisition, talent development and talent retention. These programs include recruitment, selection, placement, induction/ mentoring, performance management (performance evaluation plus methods to improve the performance of individuals), professional development, career progression and compensation.

### **Final Comments**

Referring back to Diagram 1, note that many of the items on the left hand side are designed in the context of state programs and policies that impact teachers (licensure requirements, tenure laws, support for National Board certification, etc.), the local teacher association or union and the collectively bargained contract, the state and local teacher labor market, colleges and universities, local politics such as mayoral control, and any other state or local contextual factor that might impinge on either the district's instructional improvement strategy or the design and implementation of the SMHC strategy and programs created to implement the strategy.

As Diagram 1 further connotes, the educational improvement strategy is the foundation of the strategic management of human capital<sup>6</sup> and the programs created to implement it. To be strategic in concept, the human capital management system must devolve from the educational improvement strategy of the district and data about student learning and instruction; and to be strategic in practice the human capital programs must acquire, develop and retain the talent with the requisite competencies and expertise to implement the educational improvement strategy.

---

<sup>6</sup> We understand that in the broad strategic human resource management literature there are multiple definitions for what could be called "strategic" management of human resources including: a) HR process improvements that are outgrowths of total quality management and process reengineering, b) using metrics to inform the design and operation of HR programs, c) turning the HR system into a more "customer" service orientation where the customer can be multiple people or elements of the organization, d) using technology to automate and make HR operations more efficient, e) outsourcing HR to entities outside the main organization, f) reducing costs in any aspect of the HR system, as well as g) improving organizational performance. Often "strategic" includes multiple aspects of the above various definitions. It should be clear that we define the strategic management of human capital as improving organizational performance, i.e., student achievement, though any of the transactional improvements would certainly be consistent with, and could help support, this overarching goal.

### 3. IMPLEMENTING THE PROGRAMS OF STRATEGIC MANAGEMENT OF HUMAN CAPITAL

The previous section showed how the strategic management of human capital derives from the design of a district or state educational improvement strategy. It is strategic because it is linked directly to implementation of the education system's educational improvement strategy. It is not just finding and hiring smart people and setting them loose. To be strategic, human capital management must be about finding, developing and keeping smart people with the knowledge, skills and expertise – capacity – to execute the district's educational improvement strategies. Diagram 2 indicates the elements that typically constitute the human resource management system, which impact the three macrocomponents of human capital management: talent acquisition, talent development and motivation, and talent retention.

#### Talent Recruitment

The first major box under Strategic Management of Human Capital in Diagram 2 – talent acquisition – includes five different programmatic elements of the typical human resource management system: recruitment; selection, which includes screening; compensation; professional development; and career opportunities. This suggests that potentially five of the major human resource management programs of the district and school can impact the ability of the system to recruit the talent it needs.<sup>7</sup>

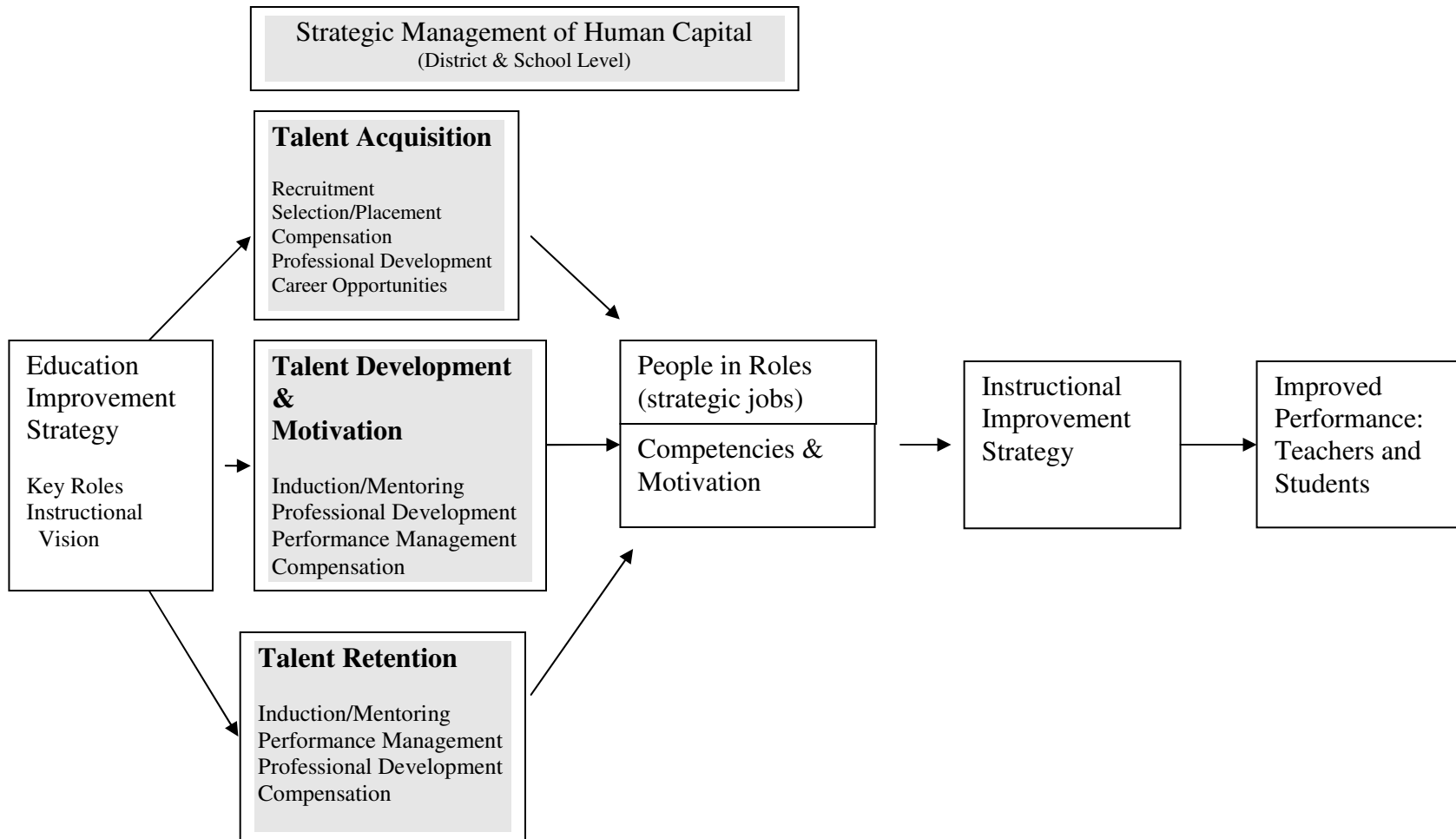
Recruitment. Examples of districts innovating for strategic talent acquisition include Boston, Chicago, and New York City. These districts were not satisfied with the quality of talent that traditional pipelines had been providing them. They had significant overall teacher shortages, a lack of math, science and special education teachers, and many teachers who struggled with classroom management and poor instructional skills. So they took a strategic stand and asked the question: How can we recruit a sufficient number of talented teachers (and ultimately principals) as well as a higher level of talent? As a result, they launched several related initiatives. They created working relationships with existing talent pipelines that they had not previously tapped, developed relationships with new talent pipelines, and in some cases, created their own talent pipelines. Chicago, for example, began recruiting at the top universities in the area such as Northwestern, University of Wisconsin-Madison, University of Illinois at Champaign-Urbana and the University of Michigan, and other universities within a 500 mile radius of Chicago. The leaders of this initiative had read the research that the bulk of teachers end up working in schools within 50 miles of where they either grew up or went to school; the 500 mile radius meant that all teachers recruited would be, though not 50 miles from home, within a one day's drive to/from their home. All three districts developed partnerships with new groups such as The New Teacher Project (TNTP), Teach for America (TFA) and New Leaders for New Schools, organizations which recruited talent from top colleges and universities in the country – TFA recruiting newly minted graduates, whereas TNTP recruited graduates who had mostly tried but soured on the high life in the private sector. In addition, these and many other districts created new district-run programs to themselves train both teachers and principals.

---

<sup>7</sup> It could be argued that every program element of the human capital management system impacts its three overall components: talent acquisition, talent development, and talent retention. The Diagram indicates which programs most impact each of the three strategic components.

## SMHC Diagram 2

### The Role of Strategic Management of Human Capital in Implementing Educational improvement



Already there is compelling anecdotal evidence that these new teacher and principal talent pipelines draw more individuals into teaching who have graduated from the nation's top universities, than is observed from the traditional pipelines of talent for those districts. In this sense, these new recruitment strategies reflect the conclusions of the recent McKinsey & Company (2007) report on how the best-performing countries in the world come out on top. McKinsey's answers: they recruit top talent into teaching, get the best out of those teachers, and step in with intensive help when students start to lag in achievement. These innovative districts and this SMHC project recognize that the first step is finding the country's top talent and recruiting them into the education profession.

There remain legitimate questions about the level and scope of pre-service teacher training that these new teacher recruits receive. There are claims that if they had more formal teacher training their classroom practice would be more effective. These are issues that should be investigated in multiple, ongoing analyses.

Whatever possible criticisms one might have about these new recruitment pipelines, they do represent a strategic approach to recruiting teacher and principal talent. The strategic way to recruit talent for an organization is to identify multiple sources of talent, evaluate and select those producing the talent needed by the organization, and even work with some sources – e.g., teacher training colleges and universities – to modify their talent training strategies to focus more on the skills needed by the organization. These strategic approaches to staffing organizations are described in detail in the popular business school text on the topic co-authored by a senior member of the SMHC team (Heneman & Judge, 2006). And all of this is to some degree what we are seeing in many leading-edge urban districts. Over time, these districts might need assistance on the tools and metrics used to determine which pipelines are the good providers of talent, but thinking strategically about where and how to recruit talent is clearly the right focus for districts that have had talent quantity and quality shortages for years.

Selection. We also need to learn about how these new recruitment strategies screen potential candidates, and select and place new talent. One issue is whether and how the screening and selection processes address the degree to which the candidates will be effective, and whether they have or can learn the instructional vision of the school, district or state. Some large districts use the TeacherInsight scale from Gallup as an indicator of possible “fit” with the challenges of teaching in urban city districts. Moreover, when Cincinnati changed its teacher evaluation system around an explicit vision of effective instruction, the district attempted to screen and select new teachers who could perform to at least the novice levels of expertise in that vision. To enhance the likelihood that more teachers would have that expertise, the district also worked with the local teacher training institutions – University of Cincinnati – where the bulk of Cincinnati teachers are trained, to use the district's instructional vision, which was a variation of the Danielson Framework for Teaching (Danielson, 2007). The point is that the screening process can also be explicitly connected to the system's instructional vision and, if possible, supported by local teacher training institutions.

Placement. Placement of talent can also be important. Putting one or two good teachers in an ineffective school probably will not improve the school that much and could discourage those individuals from staying in the teaching profession, if the school remains ineffective.

Placing top talent as cohorts in schools, particularly schools with good principals, might be more strategic. Moreover, Milanowski and colleagues (2007) found that for recruiting new teachers into one urban district, having an effective principal was more important to potential new teachers than getting a salary bonus for teaching in a hard-to-staff, high poverty urban school.

Placement also raises the issue of the distribution of effective teachers and principals across schools. Currently, too many schools characterized by high concentrations of low income and minority students have the least effective teachers and principals. Those schools can be turned around only when they have the same access to quality teachers and principals as other schools and sometimes even priority access to newly recruited top talent.

Placement further includes teacher assignment. As Ingersoll (2001, 2003) has shown, district management practices are a primary culprit in assigning teachers to classes outside of their area of licensure, a practice that leads to ineffective teaching, teacher turnover and exit from the profession. In other words, to acquire and retain talent in the system initially as well as for the long term, education systems must induct and mentor new teachers in both classroom management and instructional skills, place new teachers in schools that work, and assign them to courses they have been trained to teach. Shortcomings in any of these areas can lead to excessive short- and long-term turnover, as well as recruiting difficulties.

Compensation. Compensation also matters when acquiring top talent; it comprises key system incentives. Economists have shown that beginning salary is the key aspect of pay that impacts initial decisions of individuals to enter a profession, such as teaching (Milanowski & Odden, 2008). The higher beginning teacher salaries are (compared to other occupations), the more likely it is that public schools will be able initially to recruit talented individuals into teaching. Salary premiums could also be given to teachers in subject area shortages, such as mathematics and science, as well as teachers for high poverty schools, in order to compete effectively in the market for top teacher talent, though the salary premium does not have to match that of private sector jobs (Milanowski, 2003; Milanowski & Odden, 2008).

But the primary strategic issue for teacher compensation is whether the salary structure for teachers provides salary increases on actual measures of teachers' performance and effectiveness relative to the instructional vision of the system, unlike the current single salary structure that does not and merely bases salary increases on untargeted educational units, degrees, and years of teaching experience. Odden (2008) shows how a more strategic teacher salary structure can be created in which teacher salary increases are linked to a teacher's instructional performance, thus reinforcing the need for teachers to acquire and use instructional practices that match the instructional vision of the education system in which they work. An additional variable component of pay, such as an annual bonus provided to all staff in a school or just to individual teachers on the basis of valid and reliable measures of increased student learning beyond an expected annual learning gain, could also make the pay system for teachers more strategic. Combined, the pay system could be made to reflect both teaching performance and student performance, and thus be more strategically linked to the ultimate goals of increased student academic performance and improved instructional practice. We make these comments about the pay structure for teachers here, in the section on talent recruitment, because emerging evidence from multiple sources suggests that younger teachers, especially younger teachers from top

universities, prefer this approach to compensation as compared to the current system that is basically unrelated to direct measures of knowledge, skill and performance (Johnson, 2007).

Development. Moreover, opportunities for ongoing professional development as well as performance-based career progression opportunities also seem to be important for many young teachers. Indeed, all workers, including the young and talented individuals being recruited into urban schools, highly value consistent opportunities to expand and improve their professional practice, and expect that their performance levels will be linked to their use in the system, their career progression and their compensation (Peske, Liu, Johnson, & Kauffman, 2005).

School and district reconstitution. Some districts, it should be noted, have concluded that recruiting top talent to fill vacancies that just naturally occur due to retirements and other movements of teachers does not represent all aspects of this first step of talent acquisition. In some urban districts around the country, district leaders have concluded that more dramatic changes in talent are needed, sometimes at both the district office and in many schools. For example, Anthony Alvarado reduced the central office in both New York City District #2 and San Diego by literally scores of individuals as part of his widely admired educational improvement strategy; in those cases, the saved resources were turned into professional development provided to newly recruited people. Joel Klein in New York City and Michelle Rhee in Washington, DC have also dramatically cut jobs in the central office as well as at schools. Further, one aspect of the success Alvarado had in District #2 was that he replaced two-thirds of the principals and fifty percent of teachers as the community district he led implemented its educational improvement plan that focused on a specific view of reading instruction. Likewise, school reconstitution across the country is characterized by replacing all the individuals in historically low performing schools, and many examples of schools and districts dramatically improving performance have this significant change in talent element (for examples, see Chenoweth, 2007). Washington DC has also launched an effort to move large numbers of low performing teachers out of the system to be replaced by newly recruited talent. Talent acquisition in these contexts, then, addresses more than just normally occurring vacancies; it addresses vacancies produced by strategies that move unproductive teachers and principals out of the system thereby creating even more vacancies and providing more opportunities to enhance the overall talent pool in the district

## **Talent Motivation and Development**

Diagram 2 identifies four elements of the human capital management system related to the second key strategic area of the human capital management system: talent motivation and development: 1) induction and mentoring; 2) professional development; 3) performance management, which entails teacher evaluation and use of results in managing teachers; and 4) compensation.

Strategically as well as practically oriented school systems realize they have a major, ongoing responsibility to induct, mentor and continue to train teachers and principals. It is unrealistic for schools, districts or states to expect colleges and universities to produce newly minted professionals who from day one are accomplished masters of their practice. But once teachers (and principals) are hired and placed, schools and districts then have the ongoing responsibility

to provide continuous training that helps those professionals learn the knowledge, skills and expertise needed to be successful in the classroom. Further, given the increased performance demands on schools, which are translated into performance demands on teachers and principals to produce more student learning, there is an even greater responsibility for the system to provide even more intensive, ongoing and collaborative professional development.

Induction and mentoring. Induction and mentoring refer to the processes and strategies school systems use (or do not use) to provide individuals new to the system, primarily brand new teachers but also experienced teachers who are new to the system, with the knowledge, skills and awareness to work successfully. U.S. school districts, particularly large, urban districts, typically do not have well developed and implemented induction and mentoring systems. Moreover, even though many districts have induction programs and peer mentoring programs, the evidence on most of them is quite mixed, in part because few are structured around a vision of good instructional practice. But induction and mentoring programs provide schools and districts an additional opportunity to develop the competencies needed to meet the vision of instruction underlying their educational improvement strategy. The Connecticut mentoring program structured around the teaching standards for its new teachers is one example of a state-level strategic mentoring program (Youngs, 2003). Kerchner, Koppich and Weeres (1997) found that the most effective new teacher induction and teacher peer review programs were those designed around a set of teaching standards that proscribed the type of instructional expertise to which the system wanted new teachers to aspire.

Induction and mentoring programs also need to focus on helping teachers develop effective classroom management strategies. This aspect of being an effective teacher often is challenging for middle class talent that has had little experience in the classrooms and schools of urban districts, where assertive and direct, rather than passive and indirect, approaches to classroom management are needed in order to create safe and orderly classrooms and schools, the pre-condition for ambitious teaching and learning.

Induction and mentoring programs would be structured around helping teachers learn the instructional vision of the school, groups of schools or district in which they work, both so they can be effective in their classrooms, and so they can participate in ongoing professional development. After induction and mentoring, the professional development programs would be structured around the same instructional vision and have the goal of improving teacher performance from the novice to higher levels of performance. If the performance results were used in the pay system, pay increases over time would be provided as teachers improved their instructional practice to a higher level of performance. In this way, the induction and mentoring programs would induct teachers into beginning levels of performance to the view of effective instructional practice, professional development would help them improve to higher performance levels, and this path eventually would lead to a performance high enough for a “master” teacher designation, which could include National Board Certification. And salary increases could be provided each time a teacher’s performance reached the next higher plateau. It would make no sense, or at least it would be less strategic, if the school, district or state provided salary incentives for standards for a master teacher, but had a different vision of good instructional practice around which it anchored its induction and mentoring programs.

Professional development. Similarly, to continue to develop and motivate teachers to acquire the skills needed for effective instructional practice, an instructional vision aligned to that for induction and mentoring also would need to be at the core of professional development activities. Indeed, in this context, it would make much less sense for teachers to design their own professional development (for example, by taking self-selected courses or creating their own professional development program), which is the common practice across the country. Moreover, if the system's educational improvement strategy had an explicit and concrete vision of instruction, with a clear set of teaching standards, and the induction and mentoring programs were designed to insure that novice teachers had the beginning levels of performance relative to those standards, then it would make sense and would be strategic if the professional development programs also were grounded in the same teaching standards. To be sure, the professional development program also should be linked to the curriculum program of the school or district, so that professional development activities could be structured around creating and implementing standards-based curriculum units, thus emphasizing the precise elements of pedagogical practice that are appropriate for each curriculum unit. Research has shown that this kind of professional development strategy is quite effective (Cohen & Hill, 2001). So a strategic professional development program would be one that incorporated both the school or district's instructional vision and focused on the aspects of that vision that were needed for the multiple curriculum units that needed to be taught to expose all children to the state's and district's curriculum standards.

In many urban districts, deploying this type of professional development might require significant professional development program restructuring and resource reallocation. CPRE has participated in several fiscal and program audits of professional development in urban school districts, all of which found large sums being spent on professional development – for example, \$4,000 to \$8,000 per teacher per year – with little impact on instructional practice and little focus on the core subjects of reading, writing, mathematics and science (Miles, Odden, Archibald & Fermanich, 2004). In these cases, districts need to revamp their prior professional development programs and deploy their significant professional development resources towards strategies that are linked to their instruction visions. Indeed, significant progress on these dimensions has been made in Boston, Chicago and New York City.

Teacher evaluation and performance management. The next aspect of talent development and motivation is labeled “performance management.” In the private sector, this phrase increasingly is used to connote the fact that the system not only will evaluate employees but also use the data flowing out of the evaluation system to develop the employee's competencies, improve future performance and promote into new roles.

Teacher evaluation in education generally is of low quality, can consume a great deal of time for both teachers and evaluators, and is viewed as not useful. So the typical kind of teacher evaluation is certainly not strategic. And as noted earlier, changing teacher evaluation systems must be part of the collective bargaining process in many locations, making it complex to revamp.

To make it part of a strategic human capital management system, teacher evaluation would first need to be explicitly linked to an instructional vision and would then need to provide a valid and reliable measure of an individual teacher's performance to that instructional vision. Fortunately,

several tools and instruments exist today to allow teacher evaluation to be linked to effective instructional practice; further, these tools provide measures of multiple levels of performance to those teaching standards (e.g., Heneman, Milanowski, Kimball, & Odden, 2006; Toch & Rothman, 2008). If school systems had such teacher evaluation systems, they could use the results to help teachers move along the path from the entry level of performance, to higher and higher levels of performance, as well as to the performance level that would earn the teacher National Board Certification at some point in time. This kind of developmental path would be both motivating for teachers and strategic as it would use the evaluation system to direct the pathway for each individual teacher's ongoing development.

At CPRE, we have conducted multiple studies of the degree to which the scores of these "performance evaluations" of teachers are valid, i.e., are linked to student learning gains (see for example, Milanowski, Kimball, & Odden, 2005; Odden, 2004). Though results vary by grade level and subject, we have found linkages between such teacher evaluation scores and the magnitude of learning gains, with teachers with higher evaluation scores as a group producing more learning gains than teachers in the next lowest category. We have thus concluded that such scores could be used to performance manage those individual teachers.

For example, evaluation scores could be used to trigger pay increases so that each time the level of a teacher's instructional practice moved to a higher level of performance the teacher would earn a significant pay increase. This practice would formally link the results of the teacher evaluation system to the pay system, with teachers strategically earning pay increases if their evaluation results showed that they were able to deploy the effective instructional practices that produced higher levels of student learning. Furthermore, as teachers reached some higher level of performance, they also could become eligible for a variety of teacher leadership roles mentioned above, so the evaluation results could also help guide the district in moving teachers onto career development pathways that allowed them to provide a variety of teacher instructional leadership roles in the school and district.

Tenure. A related issue includes the standards and processes for granting teachers "tenure," which usually occurs in the second or third year of teaching, and how the tenure decision is linked to the evaluation system. Tenure is an important educational policy issue although it is so deeply embedded in traditional policy that all too often it is just assumed to be a "given". Tenure also is an important milestone for most teachers; it provides lifetime job security. In most education systems, tenure decisions are provided on the basis of a "do-no-harm" standard, i.e., tenure is provided unless there is clear evidence that the individual has moral or behavioral problems. It is rare that tenure is withheld because of poor instructional practice. Conceptually tenure could be provided when a certain level of practice is reached on a multi-level performance evaluation system. However, places that have tried to change or eliminate tenure have been largely unsuccessful. Thus, if tenure remains as is, the importance of recruiting top talent, designing and implementing effective induction, mentoring and ongoing professional development, as well as peer review programs becomes elevated; they must be successful in acquiring and developing top talent or the system will be hampered by individuals who just meet a "do-no-harm" standard but not the level of performance needed to educate all students to high performance standards.

Teacher termination. Performance evaluation systems also would provide more powerful and useful data in teacher termination situations. In most urban districts today, terminating ineffective teachers is a long and costly due-process-driven procedure, with the district often being unsuccessful. Reasons for these difficulties are numerous: districts often blame the “due process” requirements and the union for such difficulty, while the union blames the district; the result is a standstill and ineffective teachers are not counseled out or terminated. The fact is that in many termination cases, principals have not followed the evaluation procedures so the system loses on procedural grounds. Moreover, most teacher evaluation tools provide data that cannot stand up to scrutiny especially in a termination context. Very few evaluation tools have clear teaching standards and performance rubrics, principals or evaluators are not trained to use them in uniform ways, and the evaluation results are neither reliable across teachers or evaluators nor valid. As a result, they frequently do not hold up in a termination procedure. On the other hand, the results of a performance evaluation of teachers can be both reliable and valid (Heneman, Milanowski, Kimball, & Odden, 2006; Milanowski, Kimball, & Odden, 2005; Toch & Rothman, 2008) and we have had teacher union leaders tell us that although the major purpose of performance-based teacher evaluations is to improve performance, the results also would hold up in a termination proceeding, if the performance evaluation process were also followed. Peer review programs, such as that in Toledo (OH), also have resulted in both more effective teaching by those who stay in the system and a higher rate of termination (Kerchner, Koppich and Weeres (1997).

Performance management is comprehensive. All of these uses of evaluation results are examples of performance management – using the results of the evaluation system not only to further the implementation of the education system’s vision of effective instructional practice but also to improve teacher performance over time, to provide pay increases, to rationalize movement of teachers into leadership roles or to terminate ineffective teachers. Moreover, note that instructional performance remains at the core of this type of performance management, so it is performance management in the service of furthering the implementation of a set of effective instructional practice, which are key to producing higher levels of student learning.

We also should note that in many cases, teacher evaluation systems are part of collectively bargained contracts, which can make changing them a complex process. On the other hand, Cincinnati’s current and ongoing use of a performance-based teacher evaluation system, based largely on the Danielson Framework for Teaching, was part of a new contract and teachers and union leaders were part of the design team that created the new system. Further, this system also has been validated, i.e., teachers with higher evaluation scores produce more student learning gains (Holtzapple, 2003; Milanowski, 2004). The same is true for the system used in Washoe County (Reno, Nevada), Coventry (RI) and now Denver, all districts with active unions.

Last, even a good performance-based teacher evaluation system does not directly identify the effectiveness of teachers, i.e., their ability to produce improvements in student learning. Indeed, today there are many scholars as well as state and district education analysts researching ways to use value-added measures of student learning gains to identify both teacher and school (and perhaps therefore principal) effectiveness. These efforts are compatible with but different from performance evaluations as they seek to quantify the impact of a teacher or principal on student academic achievement, which is the ultimate goal. These efforts also face multiple and complex

technical challenges for accurate and stable findings. Another longer term objective of a good strategic human capital management system should be to identify good ways to identify individual teacher and principal effectiveness. The Value Added Research Center (VARC) at the University of Wisconsin-Madison is considered a national leader on this topic and the SMHC project will develop a working partnership with VARC to address this key bottom line issue.

Compensation. Finally, compensation can also, and we would argue, should also be part of the motivation and development of teachers and leaders. We have noted how compensation can be linked to a vision of effective instruction, to the evaluation system and to the performance management of teachers. Given the past 18 years of work by CPRE in disseminating new and workable ideas about new ways to pay teachers and principals (Heneman, Milanowski & Kimball, 2007; Odden & Kelley, 2002; Odden & Wallace, 2007a, 2007b), the country has launched many, sustained new approaches to teacher salary structures. Many states (e.g., Kentucky, North Carolina, Texas) and districts (e.g., Charlotte-Mecklenburg, Dallas, Houston, New York City) provide bonuses to teachers when schools as a whole, and sometimes just individual teachers, produce improvements in student learning. Other places (Denver, the Vaughn Charter School in Los Angeles) provide increases in base pay for the acquisition of various types of knowledge and skills. The hundreds of districts and dozens of states that provide incentives for teachers who are National Board Certified is the most widespread example of pay for knowledge and skills (i.e., instructional performance). The Minnesota Q-Comp program is the most strategic and well funded program at the state level providing funds to enable districts to create aligned systems around embedded professional development, teacher evaluation, career ladders, redesigned salary structures and performance bonuses. [See Heneman and Kimball (2008) for more examples of how to redesign teacher salary schedules]. And the federal Teacher Incentive Fund provides money to many educational systems to provide incentives for teachers in mathematics, science and high poverty schools and for improving student performance. Unlike the failed efforts at “merit pay” in the decades prior to 1990, the more recent experiments with different approaches to teacher pay have broadened and deepened all over the country, in both unionized and non-unionized jurisdictions.

We note here two additional aspects of how this approach to compensation can be motivating and why this approach to compensation completes the circle, if you will, about work and rewards in a strategic district. First, a wide range of research concludes that teachers are motivated by two primary factors: seeing their students improve their academic achievement and knowing that their professional practice, i.e., their instructional performance, is getting better. When periodic base pay increases are triggered by results of teacher evaluation scores that show that a teacher’s instructional practice meets the standards for a higher level of performance, then the compensation system, which is an extrinsic motivator, aligns with intrinsic teacher motivation. Further, if the pay system also provides a bonus for improved student performance, that pay element also aligns the intrinsic motivator of seeing student achieve more with the extrinsic motivator of higher pay. In this way, the compensation system, by providing external salary rewards, reinforces what intrinsically motivates teachers anyway. Contrary to some criticism, this approach to pay neither erodes the intrinsic motivators nor over emphasizes the extrinsic motivators, but simply aligns intrinsic with extrinsic motivators making them both more powerful.

We note also how this approach to compensation as well as performance management links data on performance to accountability in the system. Data on both aspects of performance, student performance and teacher performance, largely scores on a performance-based teacher evaluation system, are used for important decisions for teachers – to guide their ongoing development, to potentially place in career paths leading to leadership roles, and to provide pay increases and well as pay bonuses. These are consequential decisions that are both important to the education system and strategic. Further, evaluation results indicating less than proficient performance can also be used to trigger intervention help as well as to counsel individuals out of teaching if that is the best option given performance results, and after taking possible extraordinary personal circumstances into consideration.

Finally, designing and implementing such pay systems is not simple. In nearly all cases, they must be collectively bargained; where collective bargaining on these issues is not required, they still need teacher support over time to remain in the system and perform their motivational and management tasks. The demise of the Florida STAR program of teacher bonuses is one example of a pay system that was designed at the state level and imposed on districts, but which met stiff opposition and was dropped when a new governor took office.

## **Talent Retention**

Diagram 2 also shows that there are four elements of the human resource management system that are linked to talent retention: induction and mentoring, performance management, professional development, and compensation.

We mention only a few aspects of why these four elements impact teacher retention. First, there is significant research that documents how good induction and mentoring programs can retain teachers in the important first five years, when large numbers of new recruits leave teaching for many reasons, a critical one being not systematically helped to become an effective teacher. Teacher assignment is also important; teachers assigned to teach subjects for which they are not licensed to teach leave teaching more often than those assigned to appropriate classes. Performance management combined with professional development also affects the retention of needed talent by helping to eliminate those whose performance is not sufficient and by recognizing those whose performance is. Compensation systems contribute by recognizing and rewarding competence, which in turn differentially retains the better performers and discourages the retention of poor performers, who are not rewarded just for staying around, the implicit practice of the traditional salary schedule. Compensation systems can also encourage retention by providing incentives for exceptional individuals to follow career paths toward leadership roles or National Board Certification.

It should be clear by now that one underlying concept of SMHC is that for each key strategic job in the system, and we are emphasizing those of teacher, teacher leader and principal, the SMHC system can be structured around the knowledge, skills and competencies those jobs require, and thus be aligned horizontally across each program of the HR system, including recruitment, screening, induction/mentoring, placement, professional development, performance management/ evaluation, career progression and compensation. The private sector has sometimes called this Strategic Human Resource Management (SHRM). Further, we have

developed a tool and process districts can use to determine the degree to which their SMHC program elements are aligned around the key competencies for teachers, teacher leaders or principals (Heneman & Milanowski, 2007).

### **The Result of SMHC**

If all of the elements of the SMHC system outlined in Diagram 2 work as suggested, the result should be four-fold:

1. The district and each school should have sufficient quantities and quality of talent that is equitably distributed in all strategic jobs (teachers, teacher leaders and principals) and in all schools.<sup>8</sup> Teacher turnover in the medium term should be reduced and teacher retention should be increased.
2. Those individuals should have the core competencies (improved over time by the system's development, management and reward systems) needed to execute those job tasks successfully.
3. The system's educational improvement strategy should be clear to everyone, and should be implemented effectively and efficiently, and
4. Both teacher performance and student performance should improve, i.e., teachers should become better and better at teaching and students should achieve to higher and higher performance levels.

These results reflect the major core goal of the overall SMHC project: To create a strategic human capital management system that acquires top talent, equips them with in instructional practices that produce high levels of student academic achievement and dramatic reductions in achievement gaps, and retains those effective individuals over time.

### **The Strategic Management of Human Capital and School District Culture**

A broader conception of the role a strategic human capital management system can play in schools and districts can also include designing, promoting, and supporting a professional culture that is characterized by:

- High expectations for student learning
- A shared understanding of effective instructional practices
- Support for the district's educational improvement strategy and vision
- Collective responsibility for the student achievement results of the system.

---

<sup>8</sup> Since many urban districts and high poverty schools have had large numbers of open positions so have made the focus recruiting new talent, with school selection of personnel and limited or constrained seniority bumping, those districts that have ineffective evaluation systems also might find themselves with a "pool" of ineffective teachers with no offers of a position from any school. Indeed, New York City has simply paid such teachers without having them perform work tasks. This practice obviously strains limited school budgets, especially today. Schools, districts and unions must create ways to insure that only effective teachers remain in the district and that ineffective teachers are counseled out or terminated in ways that are procedurally and substantively sound and fiscally affordable.

Many private sector approaches to the strategic management of human capital explicitly include the development of this kind of corporate culture. We have left this element out of our first two diagrams mainly for the purpose of keeping our definition simple. However, we would expect that the result of implementing the kinds of programs and policies discussed above would be the creation of a school culture with the above characteristics. Indeed, Odden and Archibald (forthcoming) found that most schools that have dramatically improved student performance, which they call doubling performance, implement many actions through collaborative activities involving teachers, teacher leaders and principals. Though that study did not label the activities as programs of an aligned human capital management system, which is the lens we use in this paper, the schools and districts they studied did align induction, professional development, some career progression and recognition around those systems' evolving view of effective instructional practice, which meets many of the stipulations described in this paper. The result was a professional culture with the above attributes.

Elmore (2004) came to similar conclusions when he argued that in order for external accountability to impact schools in positive ways, it needs to be met with the development of internal accountability for instructional practice and student performance on the part of teachers and principals.

The school and district cultural impact assumes the following kinds of linkages:

Strategic human capital management practices → Teacher and Leader Behaviors → Professional Culture → Teacher and Leader Performance → Improved Organizational Performance, i.e., Increased Student Achievement.

The culture impact is a result of and flows from implementing the various programs of the strategic human capital management system. By implementing those programs collaboratively with teachers, the system consciously seeks to create a collaborative, professional culture, which itself reinforces the high expectations and instructional focus discussed above.

### **The Strategic Management of Human Capital and School Leaders**

The strategic management of human capital is a distributed responsibility, extending beyond the district human resource department and its formal programs of recruitment, evaluation, and compensation. The key leader of the district, of course, is the superintendent of schools. This person must place high value on organizational improvement and all that flows from it – commitment to a vision of how to improve instructional practice, and as we have argued, insisting that all elements of the human capital management system be aligned with that vision.

But the strategic human capital manager-implementers are mostly at the school level. In some centralized and decentralized systems, school leaders make hiring decisions (the case for Boston, Chicago and New York). In almost all systems, school leaders are in fact the key performance managers, responsible for evaluating, providing feedback, and coaching other staff, or overseeing these functions. In the broadest sense, school leaders are “people managers” who are accountable for motivating those they manage to carry out the school and district strategies for improving instruction and ultimately student achievement. This will involve a complex mix of

decision making, organizing, communicating, and inspiring. Thus strategic management of human capital at this level also overlaps with the concept of leadership and goes beyond formal human capital management programs.

Because of their central role, school leaders may be every bit as strategically important as teachers in improving student achievement. One important implication of this is that the human capital of these leaders is critical, and therefore districts must select, develop, and motivate school leaders that have the competencies needed to carry out educational improvement strategies as well as the competencies needed for daily people management. As is the case for teachers, these competencies must be identified, and then the strategies for attracting and retaining leaders with these competencies, developing the competencies, and motivating their application need to be developed. Human capital management practices then need to be developed to support these competencies, including the leadership practices of those in the central office who manage school leaders. District leaders must also model the kind of leadership practices they want school leaders to engage in with school staff.

A second implication is that a district's strategy to improve instruction may imply a redefinition of the school leader role. The traditional conception of the principal role covers everything from developing a school vision to balancing the school checkbook and handing out the building keys. The current trend toward emphasizing principals' instructional leadership role recognizes the need to prioritize principal effort toward activities that more directly affect student achievement. To this needs to be added an emphasis on managing the school's human capital. But this cannot be done by just adding more responsibilities to an already overloaded role. Districts need to rethink the role to ensure principals have the time, knowledge and energy for the activities that matter. A few districts have begun to do this. One alternative is to provide principals with "business" managers or "school administrative managers" who handle financial and administrative responsibilities. Another is to provide schools with additional teacher leader positions, such as instructional coaches we mentioned above, to assist with instructional and human capital leadership. A further extension of this is the concept of "distributed leadership" (Elmore, 2000; Spillane, Halverson, & Diamond, 2001) which views leadership functions as shared among a variety of formal and informal teacher roles, teams, and school governance structures. There is currently not enough research to suggest which way of restructuring school leadership will work best for implementing different educational improvement strategies. However the principal role is restructured, those who lead the principals also need to rethink the messages they send principals about what is important (adhering to purchasing procedures or hiring good teachers?), and hold principals accountable for instructional leadership and human capital management within schools.

Despite a large literature on leadership in education, there are fewer examples of strategic human capital management innovations aimed at school leaders, compared to teachers. Two notable exceptions are the Broad Foundation's Broad Fellows programs for training leaders, and the efforts of New Leaders for New Schools to develop a high-quality model for principal recruitment, selection, and professional development and create a critical mass of outstanding principals in districts. Analogous to what TFA and the New Teacher Project are doing for teacher supply, both of these programs have opened new pipelines for school (and district) leaders from outside traditional university-based educational leadership programs.

#### 4. CONTEXTUAL ISSUES, SUMMARY AND IMPLICATIONS

We have sought to identify what the strategic management of human capital would look like and accomplish in public education, and did not address contextual issues in our explanation to insure that the major themes of the framework were clear. However, there are multiple contextual issues that impact both the specifics of any district's human capital management system, as well as how it can be designed and implemented.

The over-riding question is how to move districts into a radical reform posture. There are no clear or easy answers to this question. Real accountability across the entire education system could help, but the federal government, states and districts have been working on accountability for years and there are still only sporadic accountability programs with real teeth. The federal NCLB program has created accountability pressures and most progressive urban district leaders want that pressure to remain, while fixing the recognized flaws in NCLB's accountability metrics. We have pointed to incentives – for teacher performance, for student performance and for school performance. Incentives can help, and there has been movement on the incentive front, but more and more ambitious incentives are needed. Some argue governance changes are needed, from mayoral control of school districts to decentralized school management, charter schools and vouchers. But whatever it takes to move districts into a more aggressive reform stature, the next step is to design a comprehensive education improvement strategy that can be followed with an SMHC strategy designed to acquire the talent and equip them with the expertise needed to implement the strategy. And there are multiple contextual issues conditioning the design and effectiveness of a comprehensive SMHC plan.

The first is that designing and implementing all the actions required to put SMHC into place in most districts is tough, complex, politically charged work. It will take talented leaders, courageous decision making and political support beyond that of even the school board. Many argue that mayoral control is needed to provide the political support that is needed, but mayoral control will only work if the mayor is really committed as a priority matter to improve the city's school system and will take firm political actions and spend political capital to help the superintendent get the job done.

A second important contextual factor is the nature of school district and teacher union relationships, and the substance and structure of the collectively bargained contract. Most contracts address at least some of the issues discussed in this paper. In collective bargaining states, changes in teacher evaluation, compensation and performance management cannot be made outside of the collective bargaining process. In other words, changes in human capital management programs would need to be developed in collaboration with the teacher union and reflected in a revised contract. The nature of school district/teacher union relationships obviously impacts how smoothly such changes can be developed. In some cases the district and union work together to make changes; in other contexts, the situation is more contentious.

On the other hand, not every element described here as part of the strategic management of human capital requires deep teacher or principal involvement, but many do; teachers, principals and their representative organizations should be involved in the development of the overall

system, many pieces of which (in collective bargaining states) have to become part of the collectively bargained contract. Though such partnerships might extend the design and change process, they also can strengthen support for the changes over the long term. Nearly all such changes that are imposed without teacher or union involvement meet with resistance, cause turmoil and are terminated within a few years. Trust to move the system forward often takes many years to rebuild, thus retarding implementation of strategies needed to improve teacher and student performance.

Several other contextual factors are displayed in Diagram 1, including the nature of school district governance (whether the mayor or some type of Board controls governance), the fiscal condition and health of the district, the local teacher labor market, and state education policy issues such as licensing, tenure, salary incentives, professional development or teacher mentor programs, etc. All can and will impact both how strategic human capital management systems can be created as well as their specific character, and should be considered by any district moving forward to restructure their human resource management programs into ones that reflect the strategic approach described here.

Having made the point that contexts must be addressed, the definition of strategic management of human capital developed in this paper includes the following core ideas:

- a. The strategic directions for acquiring, developing and retaining talent should flow from the education system's educational improvement strategy, which usually includes an explicit vision of effective instructional practice. This constitutes a vertical connection between human capital management and the strategic directions of the organization.
- b. The strategic management of human capital begins with aggressive and comprehensive strategies to recruit top teaching and leadership talent into urban schools and districts under the assumption that the education challenges in these districts are the toughest in the country and deserve the best talent to address them successfully.
- c. That talent needs to be professionally managed to produce in classrooms and schools the content-rich, effective instructional practices that boost student learning to high levels.
- d. To produce these effective instructional practices, and improvements in them over time, the system then needs to horizontally align all the key pieces of the HR system so all aspects – recruitment, selection, staffing, induction/mentoring, professional development, performance management/evaluation, compensation and instructional leadership – are focused on the knowledge, skills and expertise teachers need to implement the instructional vision of the school, groups of schools or district of which they are a part. Similarly, the HR pieces need to be designed around the knowledge, skills and expertise, i.e., the competencies teacher leaders, principals and other key district leaders to execute their roles in the educational improvement strategy
- e. In the process of designing and implementing both the educational improvement strategy and the human capital management program, the education system should produce an additional result, namely a professional school culture which is characterized by high expectations for student achievement, a common vision of effective instruction and accountability for the student performance results.

Finally, the goals of implementing a strategic human capital management system are to improve student academic achievement and teachers' instructional practice. Thus, in order to manage the system, districts will need good measures both of student performance, and teaching performance and effectiveness, to insure that the teaching practices they espouse are indeed linked to improved student learning. These measures will also enable the performance management aspect of such a system to help teachers improve their instructional practice over time. As a result, teachers' practice will continuously improve, students will be able to achieve to ever higher levels of academic achievement, and districts will be able to significantly reduce the large achievement gaps that exist today in urban schools.

### **Policy and Practice Implications**

This paper has “defined” what we mean by the strategic management of human capital in public education. This definition includes five, essential, tightly linked propositions:

1. **Achieving dramatic improvement** in organizational performance on two essential elements of performance – **student achievement and instructional practice**.
2. **Achieving the alignment or coherence of HR practices** through collaborative processes focused on the two critical aspects of the strategic management of human capital – talent acquisition and strategic development and management of talent.
3. **Designing and implementing human capital management reforms** in eight functional HR areas: recruitment, selection/placement, induction, mentoring, professional development, performance management (evaluation), compensation and instructional leadership.
4. **Establishing metrics to evaluate progress towards achieving the human capital management reforms** as measured by improved student achievement and more effective instructional practice.
5. **Using the metrics and evaluations to revise ongoing human capital management reforms** and to accelerate the improvement of organizational performance.

In Table 1, we identify strategy, policy and practice initiatives that will advance the use of strategic management of human capital in schools, districts and states across the country. This is a beginning list of the key policy and practice actions that the SMHC project will elaborate over time as well as recruit states and districts to implement.

**TABLE 1**

<b>Strategic Management of Human Capital Area</b>	<b>School Policy or Practice</b>	<b>District Policy or Practice</b>	<b>State Policy or Practice</b>	<b>Federal Policy or Practice</b>
1. Outcomes: Measure Student Performance	Augment district and state testing with school/ teacher developed performance assessments; use commonly across grades or subjects	Use annual tests of student performance that assess thinking and problem solving; use common end of course tests for secondary core courses	Use annual tests of student performance that assess thinking and problem solving; use common end of our course tests for secondary core courses	Invest in development of improved tests that assess thinking and problem solving across the curriculum. Continue to require assessment of student progress in NCLB re-authorization.
Measure Teacher Performance	Conduct in-school induction, mentoring, and peer counseling programs aligned with district-wide teacher assessments of teacher performance.	Use a local or state performance evaluation instrument to assess teacher performance. Seek appropriate teacher involvement in assessment program.	Adopt a performance evaluation instrument and use for a multi-tiered teacher licensure system. Remove any regulatory obstacles to performance evaluations and encourage districts to use them.	Invest in further development and validation of teacher/principal performance evaluation instruments, and provide fiscal incentives for states to use them in re-authorized NCLB programs.
Measure Teacher/Principal-School Effectiveness	Use individual teacher value-added results for performance management of teachers	Create a data system that allows for value-added analysis of both schools and individual teachers, and make the results available for use at the school level	Design state student testing, personnel and school data systems that allow for value-added analyses at the school and individual teacher levels	Continue to encourage and provide funds for states to develop data systems that allow for value-added analyses at the school and individual teacher levels
2. Conduct an SMHC Program Audit		Use an SMHC Program Audit tool to identify the details of the education improvement strategy, and the expertise needed by those in key roles to execute the strategy.	Encourage districts to conduct SMHC Program Audits	
3. Assess the Alignment of the 8 SMHC practices	Use an HR alignment tool to assess the coherence of all 8 SMHC program areas	Use an HR alignment tool to assess the coherence of all 8 SMHC program areas	Use an HR alignment tool to assess coherence of state policies that parallel the local 8 SMHC program areas	Sponsor substantial and rigorous studies of impact on student and teacher performance of coherent SMHC programs

<b>SMHC Area</b>	<b>School Policy or Practice</b>	<b>District Policy or Practice</b>	<b>State Policy or Practice</b>	<b>Federal Policy or Practice</b>
4. Design and Implement SMHC Reforms Recruitment of talent	Engage principals in selection of teachers to fill needed instructional roles. Build assessments of recruitment into evaluations of principals.	Mount an active recruitment strategy with multiple providers Assess viability of traditional pipelines Identify new pipelines; partner with new recruiting organizations Assess viability and impacts of persons recruited from all pipelines.	Create a “Teach for <state>” program like TFA and reach out to highest quality colleges and universities to encourage applications from their top graduates Develop and implement standards for accrediting teacher training organizations that are not colleges or universities Provide public dollars for all teacher training organizations, (not just colleges or universities) that meet state standards	Use presidential and Cabinet-level leadership to engage presidents of leading research universities to significantly deepen their involvement in pre-service and in-service development of highly talented teachers and principals. Support research on effectiveness of multiple pipelines supplying teachers and principals.
Selection/placement	Select “cohorts” of top talent rather than 1-2 individuals, especially in high poverty, hard to staff schools Determine degree to which HR department processes and screens applications, and does background checks	Adopt policies to let schools select staff Modify seniority bumping to aid on-time school hiring Begin hiring process as early as possible Allow schools to protect high-quality/untended teachers	Create and operate an “electronic” teacher and principal hiring market, for listing job openings and for teacher/ principal applications	Support research on effectiveness of cohort placements contrasted to traditional individual hiring patterns.
Induction	Involve principals, peers and cohorts to assure effective in-school induction programs	Develop first-year induction programs bridging pre-service training and first year teaching Develop collaborative induction programs involving pre-service institutions, teacher organizations, and employing districts.	Embed effective induction programs in accreditation of pre-service training programs and in tiered state licensure systems Encourage districts to use teacher and student assessment data in induction programs	Support research evaluating various induction strategies Disseminate widely the results of this effectiveness research

<b>SMHC Area</b>	<b>School Policy or Practice</b>	<b>District Policy or Practice</b>	<b>State Policy or Practice</b>	<b>Federal Policy or Practice</b>
Mentoring	Assign expert, accomplished teacher as mentor to each new teacher – or mentors to cohorts	Develop structured, explicit mentoring guidelines to facilitate alignment with district educational improvement strategy Evaluate effectiveness of individual mentors and mentor guidelines and program	Create distinct “mentor teacher” category at advanced licensure levels using National Board Certification equivalent standard of teaching expertise.	Support research on mentoring programs Disseminate widely the results of this research.
Professional development	Conduct a district-designed PD fiscal and program audit Design a new PD strategy and reallocate extant PD resources to fund it	Design and conduct a PD fiscal and program audit Design a new PD strategy and reallocate extant PD resources to fund it	Establish state-funded “pools” of qualified mentors and other experts in teaching to provide efficient cross-district PD services and programs.	Create NSF-funded models for developing and utilizing cutting-edge technologies to maximize PD effectiveness
Performance management, evaluation	Adopt/create a tool to measure teacher instructional practice Pilot the tool to assess impact on teachers, reliability and validity Use the results to manage teachers: development, career progression, pay	Adopt/create a tool to measure teacher instructional practice Pilot the tool to assess impact on teachers, reliability and validity Create value-added measures of teacher and principal effectiveness Use the results to manage teachers: development, career progression, pay	Support groups of districts, or state-wide consortia, developing evaluation tools and methodologies for assessing their effectiveness	Fund systems to develop teacher performance assessment tools Fund pilot programs to determine effectiveness Fund use to link results to improvement in teacher performance and value-added student performance

<b>SMHC Area</b>	<b>School Policy or Practice</b>	<b>District Policy or Practice</b>	<b>State Policy or Practice</b>	<b>Federal Policy or Practice</b>
Compensation	Add pay elements to the salary schedule based on teacher and/or student performance Provide pay premiums for teachers in subject area shortages and/or in low performing schools	Add pay elements to the salary schedule based on teacher and/or student performance Provide pay premiums for teachers in subject area shortages and/or in low performing schools Provide incentives for National Board Certification	Provide state funds for districts to design new teacher salary structures that link professional development, expertise, teacher performance and student performance in new salary systems Ensure that it is legal for districts to provide premiums for teachers in subject area shortages and/or in low performing schools Provide incentives for National Board Certification	Support research on validity and effectiveness of innovative compensation programs, measured against improved teacher and student performance
Instructional leadership	Use data from teacher evaluations to promote teachers into mentoring, professional development and leadership roles	Use data from teacher evaluations to promote teachers into mentoring, professional development and leadership roles Create flexible, “mixed” roles for expert teachers to remain at least part-time in the classroom while simultaneously filling instructional leadership roles	Require that pre-service programs for principals and superintendents focus on instructional leadership knowledge and skill including HR-system management skills	Encourage and fund innovative training, induction, and professional development programs for instructional leaders drawn from both traditional and non-traditional pipelines, Support research on the effectiveness of programs to develop instructional leaders
5. Establish and Use Metrics to assess SMHC progress	Use HR metrics to monitor progress in implementing SMHC within the school	Design a set of school and district metrics for each of the above 8 program areas Use the metrics to monitor progress in implementing SMHC	Assist districts in design a set of metrics for each of the above 8 program areas	Fund development of metrics to assessing SMHC implementation for use in both local progress management but also research on the efficacy of SMHC reforms

## REFERENCES

- Arthur, J.A. (1994). Effects of Human Resource Systems on Manufacturing Performance. *Academy of Management Journal*, 37(3), 670–687.
- Barber, Michael. (2007). *Instruction to Deliver*. London: Portico's Publishing, an imprint of Methuen & Co. Ltd.
- Bassi, Laurie & Daniel McMurrer. (2007). Maximizing Your Return on People. *Harvard Business Review*, March 2007.
- Becker, B. E., Huselid, M. A., & Ulrich, D. (2001). *The HR Scorecard: Linking People, Strategy, and Performance*. Cambridge, MA: Harvard Business School Press.
- Blank, Rolf K., & D. Langesen. (2001). *State Indicators of Science and Mathematics Education 2001: State-by-State Trends and New Indicators from the 1999-2000 School Year*. Washington, DC: Council of Chief State School Officers.
- Boudreau, J., & Ramstad, P. (2007). *Beyond HR: The New Science of Human Capital*. Cambridge, MA: Harvard Business School Press.
- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-firm Performance Linkages: The Role of the Strength of the HRM System. *Academy of Management Review*, 29(2), 203–221.
- Boyd, Don, Hamp Lankford, Susanna Loeb, J. Rockoff, & James Wyckoff. (2007). *The Narrowing Gap in New York City Teacher Qualifications and Its Implications for Student Achievement in High-poverty Schools*. Washington, DC: The Urban Institute, Center for Analysis of Longitudinal Data in Education Research.
- Bransford, John D., Ann L. Brown, & Rodney Cocking. (1999). *How People Learn: Brain, Mind, Experience, and School*. Washington, DC: National Academy Press.
- Campbell, C., M. DeArmond, & A. Schumwinger. (2004). *From Bystander to Ally: Transforming the District Human Resources Department*. Seattle, WA: Center on Reinvesting Public Education, University of Washington.
- Chenoweth, Karen. (2007). *It's Being Done. Academic Success in Unexpected Schools*. Cambridge: Harvard Education Press.
- Childress, Stacey, Richard Elmore & Allen Grossman. (2006). How to Manage Urban School Districts. *Harvard Business Review*, 84(11), 55-68.
- Childress, Stacey, Richard Elmore, Allen Grossman & Susan Moore Johnson. (2007). *Managing School Districts for High Performance*. Cambridge: Harvard Education Press.
- Cohen, David K., & Heather C. Hill. 2001. *Learning Policy: When State Education Reform Works*. New Haven, CT: Yale University Press.
- Danielson, Charlotte. (2007). *Enhancing Professional Practice: A Framework for Teaching, 2<sup>nd</sup> Edition*. Alexandria, VA: Association for Supervision and Curriculum Development.

- Elmore, Richard F. (2000). *Building a New Structure for School Leadership*. Washington DC: The Albert Shanker Institute.
- Elmore, Richard R. (2004). *School Reform From the Inside Out: Policy, Practice and Performance*. Cambridge: Harvard Education Publication Group.
- Elmore, Richard F., & Deanna Burney. (1999). Investing in Teacher Learning: Staff Development and Instructional Improvement. In Linda Darling-Hammond & Gary Sykes (Eds.), *Teaching as the Learning Profession: Handbook of Policy and Practice*. San Francisco: Jossey-Bass.
- Goldhaber, Dan, & Dan Player. (2005). What Different Benchmarks Suggest About How Financially Attractive It Is to Teach in Public Schools. *Journal of Education Finance*, 30(3), 211-230.
- Gratton, Lynda & Catherine Truss. (2003). Three-Dimensional People Strategy: Putting Human Resource Policies into Action, *Academy of Management Executive*, 17(3), 74-86.
- Guarino, C., L. Santibanez, G. Daley, & Dominic Brewer. (2004). *A Review of Research Literature on Teacher Recruitment and Retention*. RAND. Retrieved September 23, 2004, from the World Wide Web: [www.rand.org/publications/TR/TR164/](http://www.rand.org/publications/TR/TR164/)
- Heneman III, Herbert G. & Timothy A. Judge. (2006). *Staffing Organizations, 5<sup>th</sup> Edition*. New York: McGraw Hill.
- Heneman III, Herbert G., & Anthony T. Milanowski. (2004). Alignment of Human Resource Practices and Teacher Performance Competency. *Peabody Journal of Education*, 79(4), 108-125.
- Heneman, Herbert G., III, & Anthony T. Milanowski. (2007). *Assessing Human Resource Alignment: The Foundation for Building Total Teacher Quality Improvement*. Madison: University of Wisconsin, Wisconsin Center for Education Research, Consortium for Policy Research in Education.
- \*Heneman, Herbert G., III, Anthony T. Milanowski, & Steven Kimball. (2007). *Teacher Performance Pay: Synthesis of Plans, Research, and Guidelines for Practice* (Research Brief 46). Philadelphia: University of Pennsylvania, Graduate School of Education, Consortium for Policy Research in Education. Retrieved August 29, 2007, from [http://www.cpre.org/images/stories/cpre\\_pdfs/RB46.pdf](http://www.cpre.org/images/stories/cpre_pdfs/RB46.pdf)
- Heneman, Herbert G., III, Anthony T. Milanowski, Steven M. Kimball, & Allan Odden. 2006. *Standards-Based Teacher Evaluation as a Foundation for Knowledge- and Skill-Based Pay (RB-45)*. Philadelphia, PA: University of Pennsylvania, Graduate School of Education, Consortium for Policy Research in Education.

- Heneman, Herbert G. III & Steve Kimball. (2008). *Alternative Pay Structures for Teachers*. Madison: University of Wisconsin, Wisconsin Center for Education Research, Consortium for Policy Research in Education. Paper prepared for the College Board.
- Hiebert, J., J.K. Stigler, J.K. Jacobs, K.B. Givvin, H. Garnier, M. Smith, H. Hollingsworth, Al Manaster, D. Wearne, & R. Gallimore. (2005). Mathematics Teaching in the United States Today (and Tomorrow): Results from the TIMSS 1999 Video Study. *Educational Evaluation & Policy Analysis*, 27(2), 111-132.
- Holtzapple, Elizabeth. (2003, September). Criterion-Related Validity Evidence for a Standards-Based Teacher Evaluation System. *Journal of Personnel Evaluation in Education*, 17(3), 207-219.
- Huslid, M. A.(1995). The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance. *Academy of Management Journal*, 38(3), 635–672.
- Ingersoll, Richard M. (2001). Teacher Turnover and Teacher Shortages: An Organizational Analysis. *American Educational Research Journal*, 38(3), 499-534.
- Ingersoll, Richard M. (2003). *Is There Really a Teacher Shortage?* Seattle: University of Washington and Center for the Study of Teaching and Policy and The Consortium for Policy Research in Education.
- Johnson, Susan Moore. (2007). *Finders and Keepers: Helping New Teachers Survive and Thrive in Our Schools*. San Francisco: Jossey-Bass.
- Kerchner, Charles Taylor, Julia Koppich & Joseph Weeres. (1997). *United Mind Workers: Union and Teaching in the Knowledge Society*. San Francisco: Jossey Bass.
- Lankford, Hamp, Susanna Loeb, & James Wyckoff. (2002). Teaching Sorting and the Plight of Urban Schools. *Educational Evaluation and Policy Analysis*, 24(61), 37-62.
- Lawler, Edward E., III. (2008). *Strategic Talent Management*. Paper prepared for Strategic Management of Human Capital, Consortium for Policy Research in Education, Wisconsin Center for Education Research, University of Wisconsin-Madison.
- Lawler, Edward E., III, John Boudreau & Susan Albers Mohrman. (2006). *Achieving Strategic Excellence: An Assessment of the Human Resource Organization*. Stanford, CA: Stanford University Press.
- Levin, J.D., & M. Quinn. (2003). *How We Keep High-Quality Teachers out of Urban Classrooms*. New York: The New Teacher Project. Retrieved, from the World Wide Web: <http://www.newteacherproject.org/report.html>

- McDuffie, J. P. (1995). Human Resource Bundles and Manufacturing Performance: Organizational Logic and Flexible Production Systems in the World Auto Industry. *Industrial and Labor Relations Review*, 48(2), 197–221.
- McKinsey & Company. (2007). *How the World's Best-Performing School Systems Come Out on Top*. Paris: Author.
- Milanowski, Anthony T., Steven M. Kimball, & Allan Odden. 2005. Teacher Accountability Measures and Links to Learning. In *Measuring School Performance and Efficiency: Implications for Practice and Research*, eds. L. Stiefel & A. E. Schwartz & R. Rubenstein & J. Zabel, 137-161. Larchmont, NY: Eye on Education.
- Milanowski, Anthony, H. Longwell-Grice, F. Saffold, J. Jones, Allan Odden, & Kristin Schomisch. (March 24, 2007). *Recruiting New Teachers to Urban School Districts: What Incentives Will Work?* Paper presented at the American Education Finance Association, Baltimore, MD.
- Milanowski, Anthony T. (2003). An Exploration of the Pay Levels Needed to Attract Students with Mathematics, Science and Technology Skills to a Career in K–12 Teaching. *Education Policy Analysis Archives*, 11(50). Retrieved August 29, 2007, from <http://epaa.asu.edu/epaa/v11n50/>
- Milanowski, Anthony T. (2004). The relationship between teacher performance evaluation scores and student achievement: Evidence from Cincinnati. *Peabody Journal of Education*, 79(4), 33-53.
- Milanowski, Anthony & Allan Odden. (2008). *Do Teacher Pay Levels Matter?* Madison: University of Wisconsin, Wisconsin Center for Education Research, Consortium for Policy Research in Education. Paper prepared for the College Board.
- Miles, Karen Hawley, Allan Odden, Sarah Archibald & Mark Fermanich. (2004). Inside the Black Box of School District Spending on Professional Development: Lessons from Five Urban Districts. *Journal of Education Finance*. 30(1), 1-26.
- Murphy, P., & M.M. DeArmond. (2003). *The Teacher Shortage and Its Implications for Recruitment Policy*. Seattle: University of Washington, Center on Reinventing Public Education. Retrieved May 17, 2004, from the World Wide Web: Neild, R.C., E. Useem, E. F. Travers, & J. Lesnick. (2003). *Once and for All: Placing a Highly-Qualified Teacher in Every Philadelphia Classroom*. Retrieved, from the World Wide Web: <http://www.philaedfund.org/pdfs/rfareport.pdf>
- Neild, R.C., E. Useem, E. F. Travers, & J. Lesnick. (2003). *Once and for All: Placing a Highly-Qualified Teacher in Every Philadelphia Classroom*. Retrieved, from the World Wide Web: <http://www.philaedfund.org/pdfs/rfareport.pdf>

- Odden, Allan. (2004). Assessing Teacher, Classroom and School Effects. *Peabody Journal of Education*. 79(4). Entire Issue.
- Odden, Allan. (2008). *How New Teacher Pay Structures Can Support Education Reform*. Madison: University of Wisconsin, Wisconsin Center for Education Research, Consortium for Policy Research in Education. Paper prepared for the College Board.
- Odden, Allan & Carolyn Kelley. (2002). *Paying Teachers for What They Know and Can Do: New and Smarter Compensation Strategies to Improve Student Learning*. Thousand Oaks, CA: Corwin Press.
- Odden, Allan & Sarah Archibald. (Forthcoming). *Doubling Performance and Finding the Resources to Do It*. Thousand Oaks, CA: Corwin Press.
- Odden, Allan, & Marc C. Wallace, Jr.. (2007a). *How to Create World Class Teacher Compensation*. St. Paul, MN: Freeload Press. Retrieved August 29, 2007, from [www.freeloadpress.com](http://www.freeloadpress.com)
- Odden, Allan, & Marc C. Wallace, Jr. (2007b). *Rewarding Teacher Excellence: A Teacher Compensation Handbook for State and Local Policymakers*. Madison: University of Wisconsin, Wisconsin Center for Education Research, Consortium for Policy Research in Education.
- Peske, Heather G., Edward Liu, Susan Moore Johnson, & David Kauffman. (July, 2005). The Next Generation of Teachers: Changing Conceptions of a Career in Teaching. *Phi Delta Kappan*.
- Schorling, R.W. (1947, February). Recruiting and the Economic Status of the Science Teacher. *The Science Teacher*, 11-13.
- Schmidt, William H., Curtis C. McKnight, Richard T. Houang, HsingChi Wang, David E. Wiley, Leland S. Cogan, & Richard G. Wolfe. (2001). *Why Schools Matter: A Cross-National Comparison of Curriculum and Learning*. San Francisco: Jossey Bass.
- Spillane, James P., Richard Halverson, & J. B. Diamond. (2001). Investigating School Leadership Practice: A Distributive Perspective. *Educational Researcher* 30:3: 23-28.
- Stigler, James, & James Hiebert. (1999). *The Teaching Gap: Best Ideas from the World's Teachers for Improving Education in the Classroom*. New York: Free Press.
- Supovitz, Jonathan. (2006). *The Case for District Based Reform*. Cambridge: Harvard Education Press.
- Toch, Thomas & Robert Rothman. (2008). *Rush to Judgment: Teacher Evaluation in Public Education*. Washington, D.C.: Education Sector.

- Ulrich, Dave. (2001). Alignment of Human Resources and their Impact on Business Performance. *The Executive Handbook on Compensation*. Freepress.
- Useem, E., & R. C. Neild. (2001). *Teacher Staffing in the School District of Philadelphia: A Report to the Community*. Philadelphia Education Fund. Retrieved, from the World Wide Web: [http://philaedfund.org/pdfs/teacher\\_staffing\\_booklet.PDF](http://philaedfund.org/pdfs/teacher_staffing_booklet.PDF)
- Wright, P.M., & G.C. McMahan. (1992). Theoretical Perspective for Strategic Human Resource Management. *Journal of Management*, 18(2), 295-320.
- Wright, Patrick M., Benjamin B. Dunford & Scott A. Snell. (2001). Human Resources and the Resource-Based View of the Firm, *Journal of Management*, 27: 701-721.
- Wright, P.M. Gardner, T.M., Moynihan, L.M. & Allen, M. R. (2005). The relationship between HR practices and firm performance: Examining causal order. *Personnel Psychology*, 58, 409-446.
- Youngs, Peter. (2003). *District Induction Policy and Support for Beginning Teachers: An Examination of Induction Programs in Three Connecticut Districts*. Unpublished Ph.D. Dissertation, University of Wisconsin-Madison, Madison.