Educational Reform: Toward a K-16 Framework

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Abstract

"No Child Left Behind" legislation requiring states to publicize annual test scores has heightened the nation's awareness of large academic achievement disparities among America's students. Statistics reveal disproportionately low college admission rates among African American and Latino students. The nation cannot afford to face the future with large numbers of its youth uneducated and poor; therefore, it is urgent for K-12 schools and institutions of higher education to join forces to reframe the nation's educational agenda.

A Perspective

I write this article from the perspective of a clinical college professor who was formerly a high school principal and superintendent in a K-12 district. In all of these roles, I found partnerships between the K-12 schools and institutions of higher learning to be beneficial to both systems. As a K-12 administrator, I found partnerships with nearby universities to be powerful levers for improving all students' access to learning opportunities. These relationships were particularly powerful in reducing disparities of opportunity for African American and Latino students from low-income communities.

The assistance of a local university in building communities of inquiry in a high school setting, where teachers grappled with disparities in student access and achievement, led to measurable gains for students of color while promoting higher academic achievement among all the school's students. Teachers engaged with university faculty in bi-weekly text-based inquiry around issues of race, pedagogy, and access. In the process, they helped one another confront the deep and sometimes subtle contributors to institutional inequities. The practice of student inquiry within and outside faculty inquiry groups played an important role in fostering teacher-student relationships that advanced teaching and learning. The presence of university Ph.D. students working as researchers to observe and capture the school's efforts to become a more fair and just institution provided important feedback to the school and created a body of research of value to the ongoing work of reforming schools.

In a large urban district situated in the midst of low-income communities bombarded by dire urban conditions, partnerships with surrounding universities played major roles to reduce the sharp contrast between the low availability of credentialed teachers in this low-income district and their relatively abundant availability in suburban districts. One university committed up to seventy percent of their graduates to this low-

income district with large concentrations of African American and Latino students. The expectation that graduates of the teacher education program would seek employment in high poverty urban schools was made known in advance to the program's applicants. Another university brought high quality teacher education classes to school sites within the district, leading to the successful credentialing of a large pool of "emergency" credentialed teachers. The same university wrote grants to fund a "transition to teaching" program that resulted in the credentialing of a significant pool of mathematics and science teachers to fill vacancies that had historically remained unfilled for as long as an entire school year in some middle schools and high schools.

One university recruited "expert" content literacy coaches who became embedded in the K-12 school setting. Their roles included convening small groups of K-12 teachers and administrators at regular times during their professional day to collaborate for subject-specific instruction intended to elevate students' content literacy, a major determinant of academic achievement and readiness for college. Other universities intentionally placed their student teachers in urban schools with the expectation that the student teachers would seek employment in similar schools. Individuals within these universities created pathways to college for students who otherwise would have had minimal access.

Even though these efforts were often uncoordinated and sometimes unwelcome by K-12 schools and the larger university communities, committed individuals within these two systems persevered and made an impact on the lives of numerous students. The demands of our times, however, call for a more systemic and sustained approach to ensuring that all students have equitable opportunities to learn and achieve. In that spirit, I write this article, hoping that a K-16 perspective on education will emerge in time to create a hopeful future for the nation and all the students who deserve a place in that future. This article attempts to describe some of the ways in which this goal can be met.

Shared Challenges, Responsibilities, and Opportunities

The national and global circumstances of the new century present unprecedented challenges to both K-12 and higher education. These challenges are causing Americans to question whether the nation's schools are preparing students for meaningful roles in the worldwide academic, political, and economic arenas of this century. America's future depends on high levels of intellectual and social capital that enable workers of vastly diverse backgrounds to work together to make life-enriching meaning from rapidly expanding knowledge. Education has the major responsibility for preparing students to meet this future.

The nation needs assurance that America's students will be ready to advance world peace and international stability in the midst of staggering worldwide turbulence. American students will need to establish themselves as respected participants in the

fields of science and mathematics in a world increasingly dependent on technology and science. The urgency for saving the planet calls for an informed citizenry aware of its individual and corporate responsibilities. The spread of advanced and specialized knowledge around the globe presents a serious challenge to the limited pool of students qualifying for college admission and completion. Our nation is now facing the results from a history of under-educating its minority population that will become the majority population by the middle of the century.

Failure to meet these weighty challenges portends a crisis; conversely, these same challenges present an opportunity for new thinking about the role of education. The complexity of our times calls for new educational structures based in a K-16 perspective in which college is no longer an option for a select few, but a necessity for many. The growing interdependence between K-12 schools and higher education to meet the nation's educational challenges calls for a re-conceptualization of their relationship. Organizations like The Institute for Educational Leadership and the National Center for Public Policy and Higher Education have joined other organizations in calling for more collaboration between K-12 and institutions of higher learning. A report published by these groups characterizes the current relationship between K-12 and institutions of higher education as disorganized and dysfunctional and, therefore, contributing to the inequalities in public education (Callan et al. 2006).

The time has arrived for K-12 schools and institutions of higher education to recognize that their futures are inextricably linked. While the nation is calling on K-12 schools to increase high school graduation rates among African American, Native American, and Latino students, colleges and universities are facing mounting criticism for the low admission rates among the same populations. The success of K-12 schools in meeting their challenges directly affects the ability of colleges and universities to expand the nation's college-educated citizenry. America's international role is in jeopardy unless it is able to raise the educational level of all its citizens. The nation cannot afford an emerging majority population that is under-educated and poor; therefore, it must reframe its educational mission to reflect a K-16 perspective for facing the future. Although this new perspective will lead to a range of collaborative actions, the most important first step of mutual benefit to both K-12 and higher education will be to ensure all students have effective teachers throughout their K-12 schooling. This one simple step is the nation's best guarantee for an educated populace.

Two Framing Goals

Increasing evidence reminding educators of the close relationship between students' academic achievement and effective teachers creates a mandate for K-12 schools and higher education to work together around a goal to ensure that all students are taught by qualified and effective teachers. Discourses around closing the so-called "achievement gap" and increasing high school graduation amount to meaningless talk without a commitment to this goal. The well-documented disproportionate teacher shortage in low-income urban schools calls for immediate action (Education Trust-West 2006; Ingersoll 2002).

The second goal requiring the collective efforts of K-12 schools and institutions of higher education is to increase significantly the number of African American and Latino students who meet four-year college admission requirements. Meeting this goal will require K-12 schools and institutions of higher learning to adopt a collaborative framework that promotes college as a goal for every student, beginning as early as pre-kindergarten. Accomplishing these two goals can have a major impact on the state of education in America.

Schools of Education in America's universities have an important role to play. They have the capacity to send large infusions of new teachers with strong content and pedagogical knowledge into urban schools. They also have the capacity to collaborate with K-12 urban schools to create conditions that foster new teachers' continuing development. The potentially powerful effect of stabilizing the teaching force in urban schools has gone unrealized chiefly because of the divided energies and purposes of the two systems. Universities' investment in an effective teaching force in urban K-12 schools will likely produce far greater dividends than their current large investments in remedial literacy and mathematics programs for college freshmen. Further investment in the academic preparation of K-12 students will increase the number of students of color who qualify for college admission and enter prepared for the rigors of college work. To build sustained relationships toward this goal, K-12 schools and universities will need to address current structures within both systems that work against cooperation and collaboration between them.

The nation needs a new mindset about education that replaces the present national goal of a high school diploma for all its students with a national goal of a college degree. The new mindset calls for a national systemic approach to delivering a college message to every community, family and every child starting as early as pre-school. As the nation's educational goal evolved in the twentieth century from elementary school completion to the goal of a high school diploma, the twenty-first century is rapidly pushing the nation toward the goal of a college degree for all its youth.

Goal 1: Confronting the Urban School Teacher Shortage
Making the Case
The real impetus for focusing on the teacher shortage in urban schools as a national priority arises from the combined effect of multiple studies on teacher effectiveness and the recent heightened attention to academic achievement disparities among various groups of students brought about by the recent *No Child Left Behind* legislation. University teacher education programs are one of the most important sources of teachers with attributes recognized to contribute to effective teaching (Darling-Hammond et al. 2005). Yet a 2006 study of California schools conducted by Education Trust-West documented substantial inequities in California students' access to experienced and credentialed teachers. Similar data characterize other urban areas of the nation (Philadelphia Education Fund 2002). Researchers have found the inequities to be based on students' race more than their socioeconomic status (Peske and Haycock 2006). Jennifer C. Ng (2003) noted "that no matter how many teachers are

prepared nationally, there are shortages of professionally educated teachers in major urban areas" (p. 380). Urban schools with large concentrations of African American and Latino students are the least likely to experience effective teachers meeting the criteria of professionally educated, experienced and credentialed.

Other findings have the potential for exacerbating the teacher shortage problem in urban schools. Gordon, Kane, and Staiger (2006) note, "the median age of primary and secondary teachers has increased substantially over the last twenty years" (p. 4). In fact, the median age of public school teachers rose from thirty-three in 1976 to forty-six in 2001 (Gordon, Kane, and Staiger 2006). This projected loss of teachers due to retirement will occur at a time when student enrollment is also projected to increase. *The Hispanic Outlook in Higher Education* (2004) projects a growth in students attending middle and high schools caused by the children of the baby boomers now attending school and the large-family childbearing patterns among immigrant populations. The potential effects of these projected trends on urban schools are multiple. Not only will teachers retiring from urban schools create vacancies, but also retirements from suburban schools will have a high potential of drawing away teachers in urban schools who are seeking less stressful working conditions.

Numbers and Quality Matter

Urban schools need adequate numbers of teachers, but, equally important, they need effective teachers. Recent findings confirm a high correlation between teacher effectiveness and student achievement. Kevin Carey (2004) found lower achieving students to be the first to benefit from effective teachers. The study provided precise data that contrasted the positive effect of a student's assignment to three highly effective teachers in a row with the negative effect of assigning a student to three consecutive ineffective teachers. In Knoxville, Tennessee, students of the least effective teachers gained fourteen percentile points; however, students of the most effective teachers gained fifty-three percentile points. In Dallas, Texas students starting off the study with roughly similar test scores experienced a thirty-five percent discrepancy, based on the effectiveness of the teachers they had over three years (Haycock 1998). These extensive studies make a strong case that the quality of teachers matters. Evidence of this weight strengthens Kati Haycock's (2004) challenge to the nation: "If we know it to be true that the teacher's role is the single most important factor in ensuring that all students have the opportunity to learn, why don't we act like it?" (p. 1).

The vital role teachers play in student achievement contrasted with the high teacher turnover rate in urban schools sharpens the focus for a K-16 framework. Studies have demonstrated that the teacher shortage in urban schools is largely attributable to the high teacher turnover rates in these schools, not necessarily to a low influx of new teachers (Ingersoll 2003). Freeman, Scafidi, and Sjoquist (2002) found teacher transfers to be more elevated among teachers who had "served a greater proportion of minority, low-income and low-achieving students at their previous schools" (p. 17).

A study conducted in the Houston Independent School District (HISD) found that students taught by teachers with standard certification (representing subject matter content, pedagogical content knowledge, and completion of an approved teacher education program) appeared to achieve at higher levels (Darling-Hammond et al. 2005). Clearly the quality of teacher preparation before a teacher enters the profession and the quality of mentoring and support received in the first years of teaching play a significant role in new teachers' development into effective teachers and in reducing turnover rates in urban schools. As Kane, Rockoff, and Staiger (2007) note, "teachers make long strides in their first three years, with very little experience-related improvement after that" (p. 4).

Efforts toward ensuring every student an effective teacher require K-12/higher education partnerships to maximize the impact of their respective roles in educating the nation's youth. University teacher education programs are necessary for preparing teachers with deep pedagogical knowledge, content knowledge and content pedagogical knowledge. They are also needed to influence teachers' first years of teaching and create school-site conditions conducive to teachers' continued growth beyond their early years of teaching. In the absence of supportive early teaching experiences in urban schools, teachers with strong academic backgrounds tend to leave those schools in search of better working conditions in suburban schools (Haycock 2004; Ingersoll 2003)

Analyses of these underlying issues related to urban school teacher shortages lead to a small set of critical factors on which K-16 coalitions need to focus to meet Goal 1, that of ensuring that all students are taught by qualified and effective teachers. A K-16 coalition needs to focus on:
- The quality of teacher education programs in preparing teachers for urban teaching
- Retention of quality teachers in urban schools
- Support and mentoring for new teachers in their first years of teaching
- Effective communities of practice into which new teachers are inducted
- Moral and material incentives to retain effective teachers in urban schools

A K-16 Action Agenda: Hire and Retain Effective Teachers in Urban Schools
Some states, including New York, Texas, California, Pennsylvania, and Maryland, have started to work on a K-16 framework focused on teacher development and retention. The Maryland Partnerships for Teaching and Learning K-16 (2004) identified a range of goals including (1) establish specific middle school teacher certification, (2) promote and develop more collaborative K-16 professional development initiatives for teacher quality in both local education agencies and institutions of higher education, and (3) create and maintain standards-based systems for recruiting and retaining quality teachers. Universities, including Johns Hopkins University, the University of Maryland, Ohio State University, the University of North Carolina, the University of Texas and Stanford University, have developed a variety of partnerships with K-12 schools with similar foci. The scope of their work includes large-scale coalitions with

K-12 school administrators to improve curriculum and professional development, teacher preparation courses on K-12 campuses, and Professional Development Schools co-operated by universities and K-12 schools. While K-16 relationships may vary based on local needs, there is also a need for a national framework to accomplish common goals.

The Professional Development School: A Model of Successful K-16 Partnerships
One of the most promising models of stability and coherence in K-12/higher education partnerships is the Professional Development School model, put forward by the Holmes Group in 1987. In a consortium of 96 research universities with professional education programs, the Holmes Group became the Holmes Partnership in 1995 to advance the purpose of embedding an interdisciplinary university presence in K-12 schools to work collaboratively with K-12 faculty and administration. Scholars have compared the concept of the Professional Development School to that of the teaching hospital where theory and practice can be blended (Levine 1988; Sedlack 1987; Shulman 2005).

The Professional Development School creates opportunities for teachers and administrators, working alongside university faculty to improve the teaching profession and teacher preparation programs (Sedlak 1987). The Holmes Partnership took the position that neither schools of education nor K-12 schools, operating independent of one another, could bring about the education reform the nation needs. Goals of the Holmes Partnership particularly relevant to improving teaching and learning for all students align well with the two goals set forth in this article for K-16 relationships:

- Simultaneous renewal of public K-12 schools and teacher education programs
- Educational research and other scholarly activities that advance knowledge, improve teaching and learning for all children and youth
- Equity, diversity and cultural competence in programs of K-12 schools, higher education and the education profession
- High quality professional preparation and development programs for public school educators (Holmes Group 1986)

Opportunities to connect the rich body of research on teaching and learning developed in universities with the rich experience of teachers and administrators who confront the daily challenges of teaching and learning hold the potential for intellectual exchanges that benefit teachers and students in both systems. The potential benefits of these exchanges far outweigh the effects of so-called "teacher-proof" packaged instructional programs and professional programs on which many K-12 schools and districts have come to rely. This model also offers the possibility of building greater confidence in the ability of Schools of Education to prepare teachers adequately for the urban setting.

The function of the Professional Development School model is to turn school sites into places where novice teachers, veteran teachers and university faculty collaborate to

investigate questions of teaching and learning as they arise in the school setting (Holmes Group 1986). This kind of work has the potential for reversing the documented reasons teachers leave urban schools. The future of education will be aided by schools where research, experimentation, and inquiry are a part of the daily work and effective practices emerge for possible dissemination (Holmes Group 1986).

Building on the attributes of content and pedagogical knowledge that graduates of teacher education programs bring to the K-12 setting, an embedded presence of teacher education programs in K-12 settings will enable universities to support their graduates' implementation of effective curriculum and pedagogy in the school setting. The knowledge Schools of Education will gain about the realities teachers face in their attempts to implement research-based pedagogy can lead to ongoing improvements in teacher education programs.

A University/K-12 Professional Development School Model
Conditions in urban schools and teacher availability are interdependent. The challenging conditions of urban schools contribute to high teacher turnover; conversely, high teacher turnover contributes to the reproduction of the conditions teachers cite as reasons for leaving. The Professional Development School model put forward in this article has the potential for mitigating the effects of some of those conditions.

Building on earlier beginnings
Urban K-12 school districts are typically surrounded by a combination of public and private universities with whom various forms of cooperation are already in place. Although few relationships are structured or comprehensive enough to make a large impact, they provide a foundation for a K-16 framework. University teacher education programs are already the major source of credentialed teachers with content, pedagogical, and content pedagogical knowledge, although the degree to which those teachers actually enter the profession or choose urban schools varies widely. Universities and K-12 schools work together in support of student teachers, but neither provides structured or predictable support to new teachers or veteran teachers in the context of K-12 schools.

In addition to the primary function of offering advanced degrees in education and qualifying teachers for certification, the typical connection between K-12 schools and Schools of Education is limited to university-sponsored sporadic professional growth opportunities that bring teachers on a voluntary basis to university campuses in the evenings, on weekends, and vacation times. The content of these professional growth opportunities is typically determined by the university, with little input from K-12 participants. Expectations for participants to disseminate or apply the knowledge gained from these events are typically unclear. The result is an increase in a few teachers' personal knowledge with little effect on K-12 schoolwide practices. Barriers of time, distance, cost, and institutional structures isolate Schools of Education and K-12 schools from one another's work.

Help comes to K-12 schools from other departments or professional schools within the university, but in the absence of coordination and unified purposes these efforts have failed to make systemic change in either institution. Existing K-16 relationships provide a foundation, however, on which to build a more structured K-16 education framework with an initial emphasis on teacher preparation, development, and retention as an essential means for improving student achievement in urban schools. Many of the challenges of urban school districts can be ameliorated by meeting this single goal.

Unmet challenges of schools in urban school districts
- Multiple effects of high poverty
- Concentrations of historically underserved African American and Latino students
- High concentrations of English learners
- High school dropout rates as high as thirty or forty percent
- Disproportionately low college admission rates
- Academic growth rates insufficient to close the "achievement gap"
- Slowed academic achievement in the transition between elementary school and middle school
- Disproportionately high teacher turnover rates in middle schools and high schools

A middle school focus
Many issues plaguing K-16 schools need to be addressed, but issues that appear to emerge as students transition from elementary to middle school have been identified among the most consequential (National Middle School Association and the National Association of Elementary School Principals). The middle school structure, created in the 1970s to exceed the performance of junior high schools, is coming under scrutiny as conversations now turn to a K-8 structure. Some argue that the grade configuration is much less important than school culture and effective teaching to nurture students' intellectual growth at a time when they are experiencing dramatic physiological and psychological change (Beane and Lipka 2006). The high teacher turnover rate and teacher shortage in high-poverty urban middle schools create major barriers to meeting the needs of students at this critical stage in their schooling. In his report on the high teacher turnover rate in Philadelphia during the school takeovers, Spiridakis (2003) commented, "the problem has always been most severe at high-poverty middle schools" (p. 3). An early K-16 initiative that begins by ensuring middle school students have the teachers they need can have major impact on the entire K-12 structure.

Losses in academic performance as students transition from elementary school to middle school, accompanied by increases in incidents requiring disciplinary intervention, characterize many urban middle schools. Research has traced high school dropout rates back to the transition from middle school to high school of students who are ill-equipped for high school. (Alspaugh 1998, 1999). Given the evidence of the significant impact of effective teachers, creating stability in the teaching ranks in low-income middle schools takes on urgent significance.

The effects of a stable faculty of effective teachers can reverse the decision of many parents of high-performing students in highly challenged urban communities who choose alternatives to their neighborhood middle schools. The loss of higher performing students and the support of parents who were highly engaged in their child's schooling creates a social and academic dynamic that negatively impacts teacher-student relationships and creates an additional incentive for teachers in urban middle schools to leave. Student behavior and perceptions of inadequate administrative support are reasons commonly cited by teachers who transfer from urban schools (Ingersoll 2003). Many of them accepted middle school assignments as temporary until they are able to transfer to their preferred grade level. The requirement in some states for a subject-matter credential to teach grades seven and eight creates a pool of teachers whose first priority is a high school assignment. Middle school teachers in states that require an elementary credential to teach in middle schools tend to transfer to elementary schools at their first opportunity (Peske and Haycock 2006). The reciprocal relationship between teacher turnover and school conditions calls for K-16 collaboration to improve conditions in urban middle schools.

The focus for the K-16 partnership presented in this article calls for universities in proximity to urban districts to join school districts in a five-year commitment to work together to recruit, support, and retain effective teachers in urban schools, with middle schools as the first priority. The Professional Development School framework focused on this priority requires complementary actions on the part of K-12 schools and university partners to overcome institutional barriers that have prevented the formation of partnerships. In the following table, I provide a list of actions that K-12 schools and higher education institutions might each undertake to establish a Professional Development School to improve academic achievement and college admission rates for all students.

Table 1: Complementary K-12 and Institutions of Higher Education Actions to Establish a PDS Model

SCHOOLS OF EDUCATION	K-12 INSTITUTIONS
Establish a priority of supplying effective teachers to urban schools experiencing the highest teacher turnover rates with a first emphasis on middle schools.	Establish protocols for pre-recruitment relationships with teacher candidates.
Establish relationships throughout the university community for a comprehensive approach to working with K-12 schools.	Streamline district hiring procedures to place graduates of university teacher education programs in high priority schools.

Collaborate with K-12 schools to create a middle school teacher education curriculum.	Collaborate with Schools of Education to create a curriculum that specifically prepares teachers to function effectively in the urban middle school setting.
Assign highly qualified advisers and other supports to all new teachers in the targeted schools throughout their first year of teaching.	Collaborate with Schools of Education to establish and implement criteria for selecting and supporting middle school master teachers.
Grant tuition reduction or college credit to mentor teachers.	Collaborate with university faculty to establish criteria for selecting effective mentors to new teachers.
Make university classes available to teachers on the targeted school campuses during the school day and after-school at minimal or no cost.	Provide adequate time and resources to support new teacher mentoring.
Establish and support on-line courses and mini-courses accompanied by on-line discussion boards and chat rooms to involve K-12 teachers and university faculty.	Collaborate with university teacher education programs to create school-site classes whose curricula reflect school needs.
Co-construct curriculum for site-based teacher classes based on school-identified needs, i.e., language development, culturally responsive pedagogy, mathematics and science content, etc.	Set aside matching funds with universities to offer university classes at reduced or no cost to teachers and administrators in high priority schools.
Establish and support teacher/administrator inquiry groups co-facilitated by K-12 and university faculty.	Provide technology that enables teachers to participate in on-line discussion boards and chat rooms among themselves and inclusive of university faculty.
Hire knowledgeable teachers within the K-12 school whenever feasible to teach school-based classes.	Reallocate and create resources and set aside times for inquiry-based learning and professional growth between teachers and university faculty.
Establish a university faculty position to coordinate the PDS partnerships in every two partnering middle schools.	Set aside places within K-12 facilities for school/university engagement.

Reorder budget priorities in support of the Professional Development School model.	Reorder budget priorities to support the Professional Development School model.
Make available to K-12 schools research and researchers to explore culturally relevant and linguistically appropriate pedagogy.	Establish a priority of implementing culturally relevant and linguistically appropriate pedagogy.
Co-sponsor with K-12 schools/districts public forums on the state of public education and recommendations for change.	

Reordering Funding Priorities

A significant step toward ensuring that all students have the teachers they need requires collaboration between institutions of higher education and K-12 districts to capture and appropriately allocate funds set aside under federal guidelines for teacher training and support, attracting capable persons into teaching, and improving the quality of teachers that universities are sending into high-need schools. Funds are needed to attract persons with cultural and economic backgrounds similar to those of students in highly impacted urban schools. They are the least capable of bearing the costs of teacher education programs, but they are a resource for filling positions created by White teachers' reluctance to remain in urban schools. Federal and state funding disproportionately dedicated to remediation programs, instead of heavier investment in teachers as a priority, is antithetical to substantial research that repeatedly identifies effective teachers as the most powerful lever for promoting student learning (Darling-Hammond 1999; Neville, Sherman, and Cohen 2004).

Making the investment in teachers for urban schools a priority will also challenge the deficit mindset about children of color that has led to a misdirected addiction to remediation as the primary means for closing the "achievement gap."

Partnering for Teacher Stability in Urban Schools

Offering university courses at K-12 school sites will remove barriers of time, distance, and economics that prevent schools from building intellectually engaging learning communities for inducting new teachers. University teacher education programs, working in concert with other professional schools and departments in the university can provide the assistance K-12 schools need to support new teachers. Likewise, universities can benefit from coordinated efforts across their own campuses to impact the urban scene. This change in intra-university relationships has always been one of the major goals of the Holmes Group Professional Development School model (Holmes 1986).

On-site university classes, support to new teachers, and inquiry-based communities of practice can reduce the levels of resistance new teachers often face when attempting to implement research-based instruction in K-12 school environments. This resistance, matched by new teachers' fragile understandings of research-based pedagogy, results in major losses to students, frustration on the part of the new teachers, and new teachers' early departures from these schools. Schools that enable their students to learn move beyond "islands of knowledge" that reside only among a few individuals in the school. They work to create rich funds of knowledge throughout the community of practice. In too many K-12 schools, the responsibility for school reform rests with a few forward thinking members of the school community who typically encounter resistance from those who are not similarly focused.

Classes offered by Schools of Education on K-12 school sites whose content is co-constructed by K-12 teachers and provided at minimal or no cost to teachers as part of their professional practice will help to establish communities of practice that foster learning among all their members. New teachers expected to develop into effective teachers who remain committed to urban schools need this kind of induction environment. The daily realities of K-12 schools in low-income communities are the crucible in which the complementary roles of theory and research are best tested. Bringing K-12 teachers and university faculty together in a predictable structure of mutual learning based in school settings can bring about an appropriate relationship between research and theory leading to higher academic achievement for all students.

Goal 2: Making College a National Goal for All Students
Meeting this Goal 2 is significantly dependent on meeting Goal 1, which is to ensure that all students have effective teachers. Low college admission rates among African American and Latino students presumably result from their failure to successfully complete courses required for college. Teacher shortages contribute directly to this major barrier to college in high poverty urban schools; therefore, K-12 schools and higher education partnering to ensure every child an effective teacher is a powerful lever for increasing the number of students of color eligible for college admission and completion. Meeting Goal 2 requires additional efforts to
- create school structures that foster up-close college-focused relationships between universities, K-12 students, school personnel and school communities; and
- confront K-12 and university institutional barriers to college access.

Changing the perceptions of students and their families in low-income and highly segregated communities about college requires the sustained and coordinated presence of universities on K-12 school campuses and the surrounding communities as early as pre-school to communicate an early message that college is in the future of all students. Data documenting the proportionately low numbers of African American and Latino students eligible for four-year college admission attests to the limited effectiveness of college outreach programs now in effect. "Hard as it may be to accept, the gap between

Whites and African Americans, Hispanics, and Native Americans in educational access and attainment is growing, rather than shrinking" (Bensimon 2005, 1).

Creating an Education Message for the Public

A potentially powerful outcome of a K-16 educational framework is the emergence of a unified K-16 voice to articulate a clear education message to help the public grasp the essential role of education in a democratic society. Educational institutions would serve the nation well by taking note of the strategic genius the University of Michigan demonstrated when it crafted a powerful message in the 2003 Supreme Court case to assert the vital role of diversity in maintaining the intellectual and social well-being of educational institutions (Green 2004).The University of Michigan took three bold actions: (1) it articulated a clear message that drew important allies including former President Ford and large corporations, (2) it constantly articulated the institutions' position through numerous channels, and (3) it constructed a comprehensive and multi-pronged strategy (Green 2004, 19-20). To send forth a clear message that links the nations' well-being to a high school diploma and college degree national goal, universities and K-12 systems need to also draw important allies, communicate the message through numerous channels, and construct a comprehensive strategy.

Schools of Public Policy have a role to shed light on the influence of public policy in limiting the educational opportunities of low-income students of color. Schools of Social Work need to articulate the powerful effect of urban social conditions on students' access to education. Schools of Medicine and Dentistry need to speak to issues of health that reduce low-income students' opportunities to learn. Business Schools need to draw clear lines between educating the nation's youth and the economic forecast for America. Professional Development Schools, working inside K-12 schools, can provide the structure for bringing these K-12/university resources together to craft a unified message about the necessity for supporting public education for all students.

Institutional Change

The impact of the typical litany of speakers, tutors, college outreach personnel, college nights, and college planning sessions with parents of elementary school students is limited by existing structures within K-12 schools and institutions of higher learning. They obstruct these efforts' ability to provide the social capital that Ricardo Stanton-Salazar (2001) has identified to be essential for college admission. He calls it the capital that comes automatically to middle class White students through their family and community relationships and their schools. "The processes of network construction, negotiation, and help-seeking are known to be quite different across social classes and other status groups (e.g., across various ethnic and gender groups)" (p. 4). Making the social capital associated with college access available to students in urban schools calls for a systemic approach to changing structures within K-12 schools and institutions of higher education.

Institutional operating structures inside K-12 schools are so disparate with university operating structures that communication with K-12 students about college preparation and admission is sporadic, unpredictable and limited. In spite of good intentions, the structures in K-12 schools and universities cause them to participate in the reproduction of educational inequities. Through the Professional Development School model, the embedded university presence in K-12 schools would increase universities' awareness of the institutional, community and personal barriers of students' readiness for college. That presence can also help infuse a college consciousness among teachers, administrators, counselors, students, and parents. Universities need to become institutional partners with K-12 schools, equally invested in increasing the number of students qualifying for college admission.

New Opportunities for a College-going Culture

Efforts underway in many school districts to restructure middle schools and high schools into small learning communities open a window of opportunity for universities to participate in establishing new structures within K-12 schools that improve urban students' access to college. Present structures that rely on a small number of school counselors, already overwhelmed by excessively large counseling loads, and a small number of university outreach personnel, to ensure that large numbers of students in urban schools have access to college are a formula for failure. These structures benefit only a fortunate few who are the most likely to have found the path to college with their own resources. The restructuring into small learning communities, designed to reduce the impersonalization between teachers and students that typically characterizes large middle and high schools, has potential for creating conditions that make college a stronger reality for African American and Latino students in urban schools. Teachers working with small groups of students over an extended period of time can replicate relationships common to small schools or middle class families to ensure that students have greater access to college.

Schools of Education working with other professional schools within the university can play a significant role designing small learning communities that foster the overall well-being of students and a college-going culture in support of all students. A Professional Development School model operating in collaboration with small learning communities has the potential for creating relationships within schools and between K-12 schools and universities that make available the social capital low-income students in urban schools need. The historic over-reliance on counselors as the pipeline to college is outdated and futile; but teachers as well are an untapped resource whose influence has been restricted by schools' factory-like structures requiring subject-matter teachers to interact with as many as 175 students each day.

Universities can play a major role in shaping the cognitive and social experiences provided by the small learning community structure. Work around cognitive psychology and the neurosciences conducted in research universities can assist schools in designing new school structures. Similarly, the rich body of research to counter

institutional racism in educational institutions that has emerged among social science researchers and university educators can assist K-12 schools in understanding the limiting influence of racism on educational opportunities for students of color. Perhaps collaboration between K-12 schools and institutions of higher education on this sensitive issue can lead to reform in both institutions.

New Relationships for a Better National Future

Disparities in college admission that clearly fall along racial and economic lines are rooted in the relationships produced in our collective national history; therefore, remedies lie in re-examining that history and locating the junctures where it has separated people and given ascendancy to one group over another. Historic divisions in relationships between universities and K-12 schools are as harmful as the societal divisions based on ethnicity, gender and economics. They result in alienations, misspent resources, huge inequalities, and loss of quality of life for all citizens. A K-16 framework, rooted in an understanding of the interdependence between higher education and K-12 schools, presents an opportunity to reduce divisions between the two institutions with the greatest potential for creating a higher quality of life for the entire nation. A nation focused on a national goal of college for all children provides the greatest possible potential for a prosperous national future.

In America's relatively short history, it has struggled with the fundamental question of who is an American and therefore who is entitled to the resources America bestows. The nation's struggle with this question has had a profound effect on its educational institutions as these institutions have also shaped the destiny of the nation. The great disparity now characterized as the "achievement gap" is really a contemporary expression of this struggle to decide how diverse a nation America wants to be. As the struggle continues, the decisions made at this critical juncture in American history will largely determine who America will be and the place she will hold in this young century.

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