Spring 2010
Industry Study

Final Report
Education Industry

The Industrial College of the Armed Forces
National Defense University
Fort McNair, Washington, D.C. 20319-5062

EDUCATION 2010

ABSTRACT: Education is a vital element of U.S. national security. Currently, this industry is characterized by an inexcusable achievement gap and decrease in global competitiveness due to a core of decentralized and sometimes entrenched bureaucracy, unions, and a constantly shifting landscape of legal, regulatory and policy requirements at the federal, state and local levels. The paper recommends improving the teaching profession, establishing national common core standards, emphasizing science, technology, engineering, math and language education as well as streamlining federal education programs.

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PLACES VISITED

Domestic:

American Express Corporate University, New York, NY
American Federation of Teachers, Washington, DC
American Council of Higher Education, Washington, DC
Boston Latin School, Boston, MA
Boston Renaissance Charter School, Boston, MA
Chelsea Public School, Chelsea, MA
Council of Great City Schools, Washington, DC
The Century Foundation, Senior Fellow, Washington, DC
Educational Testing Service, Washington, DC
Embassy of France, Washington, DC
Embassy of Germany, Washington, DC
Early Education Initiative, New America Foundation, Washington, DC
The George Washington University, Chairman, Department of Teacher Preparation and Special Education, Washington, DC
Harvard University Graduate School of Education, Cambridge, MA
Harvard University, Former Superintendent of Boston Public Schools, Cambridge, MA
Home School Legal Defense Association, Washington, DC
Knowledge is Power Program (KIPP) Infinity Charter School, New York, NY
Maryland State Department of Education, Baltimore, MD
Minuteman Regional High School of Applied Arts and Sciences, Lexington, MA
Montgomery County Public Schools, Rockville, MD
Mountain View Alternative High School, Centreville, VA
National Governors Association, Washington, DC
New York City Department of Education, New York, NY
Northern Essex Community College, Haverhill, MA
Northern Virginia Community College, Annandale, VA
Potomac Job Corps Center, Washington, DC
Raytheon Corporation, Andover, MA
Teachers Panel, Washington, DC
Thomas Jefferson High School for Science and Technology, Alexandria, VA
US Department of Education, Washington, DC
US House of Representatives, Committee on Education and Labor, Washington, DC
Virtual High School (VHS, Inc), Maynard, MA
Washington DC Public Schools, Washington, DC
The Washington Post, Education Reporter, Washington, DC

International:

Cambridge University, London, England
Department of Children, Family and Schools, London, England
Ecole Maternelle, Paris, France
Humboldt University, Berlin, Germany

John F. Kennedy High School, Berlin, Germany
La Sorbonne University, Paris, France
Lycée Louis le Grand, Paris France
Office for Standards in Education, Children's Services and Skills (Ofsted), London England
Sachsen State House, Berlin, Germany
Tiffin Girls' School, London, England

"All who have meditated on the art of governing people have been convinced that the fate of nations depends on the education of youth." ***–Aristotle***

INTRODUCTION

If we told you an industry fundamental to United States (U.S.) national security is caught in an outdated paradigm and losing its global competitiveness, you would be concerned. Similarly, if we found solutions within government's control, you would be optimistic. This situation describes the education industry. While particular segments of the industry – higher education and research, for instance – are held in high regard, our primary and secondary education system is declining in global competitiveness. This sub-par performance retards our economic growth and threatens our national security. Sweeping reforms occurring in U.S. education policies, however, show some promise in restoring the industry to preeminence. This study critically examines past and current trends in the U.S. education industry relative to their possible effects on national security, and proposes recommendations for improvement.

Why is education a vital element of U.S. national security? Consider the statement of a Chief Executive Officer (CEO) from one of our largest defense contractors. In response to a question during a speech at National Defense University in 2010, the executive remarked he was "terrified" at the current state of the U.S. education system. He lamented he could only find half of the 14,000 American-born engineers he needed to hire each year. While other defense contractors have expressed similar views, the concerns extend well beyond the corporate domain. Reports such as "A Nation at Risk" have for several decades cautioned that our lagging education industry is hurting our economy, governance and national security.[1]

We researched nearly every aspect of the education industry and visited all types of schools: public at every level (both elite and struggling), private, vocational, charter and magnet. We also saw community colleges, universities, corporate learning centers, as well as institutions in three European countries. We interviewed teachers, principals, superintendents, union representatives, policy makers, business professionals and professors. We even spoke to students, both traditional and home-schooled.

What we found is an achievement gap and lack of global competitiveness draped around a core of entrenched bureaucracy, unions, and a constantly shifting landscape of legal requirements at the federal, state and local levels. This paralyzed nucleus, however, is surrounded by a diverse range of educational experiments that demonstrate considerable hope for the future if properly evaluated, resourced and then widely implemented – a big if.

In the end we tried to answer several burning questions: What is the purpose of education in the 21st Century, and what should the education industry look like to get us there. We found just as in Aristotle's time, education should produce citizens who can meaningfully contribute to society, are economically productive and reasonably fulfilled. It doesn't take outrageous amounts of money to achieve this. What it takes are excellent teachers with good leadership. Parental involvement is important, but its absence can be overcome with time and effort.

The following paragraphs will define the industry, explaining its current condition and identifying major challenges. In the outlook section, we offer one potential scenario for a bright future before concluding our narrative with recommendations on how to achieve that idealized future. Two appended essays go into additional detail on two key parts of the industry – charter schools and virtual education. A third essay is an interesting personal look at one of the many important "niche markets" in education – historically black colleges and universities.

THE INDUSTRY DEFINED

Many who work in the area as well as the current administration have begun describing the industry as "P-20+."[2] In other words, this industry seeks to ensure an educated citizenry beginning as early as necessary (pre-school or "P") through high school (twelfth grade) and beyond to college (16 years). It should keep going on into the workplace and life as new or different skills are required (20 years and beyond). Here's a brief summary of the industry.

Pre-kindergarten

The pre-kindergarten (pre-K) segment consists mostly of private industry ranging from mere daycare to high quality, age-appropriate instruction.[3] About two-thirds of four-year-olds and 40% of three-year olds attend classroom based programs.[4] This segment has historically been regulated primarily for health and safety rather than as a means to prepare kids to learn, particularly disadvantaged kids. We've seen innovative examples of partnerships such as the initiative in Montgomery County, Maryland to provide the neediest students with preschool from age three through a combination of federal Head Start money and local funding.[5] France also has a popular universal pre-school program beginning as early as age two.[6]

Kindergarten-Twelfth Grade

The kindergarten through twelfth grade (K-12) sector encompasses 132,000 schools enrolling some 55 million students.[7] Ninety percent of students attend public schools.[8] These figures don't include the nearly 1.9 million home-schooled students; a number estimated to be doubling in size every 10 to 12 years.[9] The 33,700 private schools run the gamut from religious-based all the way to boarding schools. Traditional public schools are augmented by an increasing variety of institutions. Charter schools have taken off where local rules allow them. They've been given flexibility from some rules (particularly collective bargaining) and at least some have been quite successful. In 2007, there were 4,132 charter schools, and they continue to increase in number approximately 10% per year.[10] An essay at the end of this paper provides considerable detail about these innovative public schools.

In addition to charters, the seminar saw magnet and "exam" schools (those requiring a test for entrance). The exam schools like Thomas Jefferson in Virginia and Boston Latin in Massachusetts take the best and brightest and give them a one-of-a-kind education.[11] A magnet school, on the other hand, is a public school that specializes in a certain niche such as language, art, music or science. We saw successful alternative schools such as Mountain View in Virginia where a relaxed atmosphere, small classes, special teachers and a culture of respect bring success to students who failed in traditional high schools.[12] The Potomac Job Corps model enables people beyond traditional high school years to earn a General Education Development (GED is a high school equivalent) degree and prepares them for life and employment through a residence program stressing discipline, life and job skills. We also learned about the growing segment of virtual schools where students can enroll in on-line, for-credit high school courses. These schools are in 33 states with 24 of those states providing full-time, on-line schools.[13]

Post-Secondary

In the post-secondary sector, change is happening at a furious pace. Forty-four percent of undergraduates are in community colleges.[14] These institutions have historically been seen as good values because they have low tuition, are close to home, provide job related skills and have flexible hours. In addition to all those advantages, many community colleges have upped their academic game to the point they are seen by many as the new graduate school. During our visit to Northern Virginia Community College, we noted 20% of their almost 30,000 students already have an undergraduate degree and are seeking additional credentials or certificates for career advancement.[15] During a recent visit to a community college in Iowa, President Obama described such institutions as "one of the most underappreciated assets in America."[16] As these nimble institutions continually adapt to consumer demand, their contributions to the post-secondary education system remain significant.

The traditional four-year non-profit institutions, on the other hand, are struggling. Due largely to increased costs and the lingering impact of the recession, their tuition is sky-rocketing. Many students, ill-prepared for college-level courses, fail to complete degree requirements. Although the elite universities remain preeminent in research, critics are beginning to question whether that research is tied any longer to undergraduate instruction and, therefore, to our educational future.[17]

Nipping at their heels are the biggest change agents in the post-secondary segment: the for-profit institutions. The University of Phoenix had 443,000 students enrolled and netted $3.8B in 2009 to easily earn it a spot in the Standard and Poors 500.[18] Like community colleges, these institutions offer convenience and job-related degrees students want. They make use of non-tenured adjunct faculty and offer many of their courses online. One firm, StraighterLine, offers tuition as low as $99 per month plus $39 per course.[19] An essay at the end of this paper goes into more detail about virtual education in this market and others. The for-profits also have their critics. Phoenix gets the lion's share of its funding directly from federally subsidized school loans and Pell Grants awarded to students.[20] They charge more than most state schools and have lower graduation rates.[21] Nonetheless, for-profit higher education will have a strong place in this segment of the industry in the future. Phoenix's shareholders are counting on it.

Speaking of federal money, Congress recently passed legislation to increase the dollar amount of Pell Grants, to provide student loans directly from the government (instead of through contractors) and to provide additional funding to historically black colleges and universities (HBCUs). An essay at the end of this paper examines the relevance of those HBCUs at a time when we have an African-American President.

Corporate Education

Even workplace and lifelong education are changing. Fortune 500 companies like Raytheon and American Express are working hard to build and retain human capital with innovative educational progressions for strategic leaders, middle managers and line workers.[22] These companies are even reaching out to young people in ways as creative as video games and amusement park rides to build future technological interest and capability.[23] From P-20+ and throughout life, the education industry remains the lifeline of our economic competitiveness by developing the skills our citizens need and want.

CURRENT CONDITION

The industry is highly decentralized with each level threatened by shrinking budgets and an emerging collection of alternatives to traditional public schools (this industry's analog to "new entrants") such as charter and virtual schools as well as home schooling. This section looks at several issues affecting U.S. education: 1) economics, 2) funding, 3) decentralization, 4) teachers and administrators, 5) ESEA reauthorization, and 6) Race to the Top.

The Economics of the Education Industry and the Competitive Environment

The competitive environment in the K-12 sector (our focus) is best characterized as an oligopoly – that is, an industry with few firms able to compete because of barriers to entry such as government regulation. The economic impact of the industry is hard to measure but consider just one statistic. Although about 3.3 million students are expected to graduate high school in 2010, 1.3 million, or 3 of every 10 high school seniors do not graduate each year with their peers.[24] The cost to the country of dropouts over the next decade is estimated at $3 trillion.[25]

Demand is high for magnet (or exam) schools described above. Their success, measured in standard assessments and college acceptance rates, demonstrates their high quality. Some traditional public schools criticize them by noting they "skim" off the best students from traditional schools. This argument is unpersuasive. Elite public schools have their place in our system to educate the best and brightest. What's important is they be evenly distributed throughout the country and they follow Boston Latin's lead by reaching out to disadvantaged communities and helping those kids become familiar with the entrance exams.

Conversely, urban and rural public schools struggle to keep pace with their suburban counterparts, while, in many instances, alternatives thrive. Charter schools, for example, have demonstrated success in diverse urban environments (e.g. Harlem, Houston, Washington, D.C.)[26] They have their critics, though. Some argue successful charters are small and impossible to scale up. Critics complain successful charters subtly select their students by requiring, for instance, parents attend three orientation meetings prior to signing up their children for the entrance lottery. Others point out that charter schools typically enroll few, if any, special needs students – thus avoiding the expensive and onerous federal requirements in this regard. Famous charters are even criticized for the private money they receive.

These arguments are important but just don't stand up to the success we've seen among certain charter schools with very disadvantaged students. Sure, there are a significant percentage of charter schools that fail and some that cherry-pick their students (albeit typically from a pretty disadvantaged pool).[27] Nonetheless, we're convinced from our observations that when great school principals are given the freedom to set hours and curricula but most importantly, to hire excellent teachers and fire unproductive ones, schools can succeed for all students. They succeed even without significant parental involvement and even without superior resources.

Short-term funding

The recession that began in late 2007/early 2008 will impact school budgets for years to come. Property tax revenues, which generally fund local school budgets, dropped markedly with the collapse of the housing market. State and local jurisdictions provide about 90% of K-12 education funding, creating a structural under-resourcing of inner urban and rural schools in

areas with a poor property base.[28] One recent study, focused on the recession's impact on education funding, calculates the drop in state K-12 education funding to be 18.5%, or roughly $54B, from 2009 to 2011.[29] This reduction is in addition to another projected $11B reduction from original 2009 budget levels.[30]

Ten states exempt or limit the amount that state education funds can be cut.[31] As budgets continue to tighten, these "maintenance of effort" (MOE) laws will be tested. Maryland, for instance, introduced legislation to change or repeal the existing MOE statute.[32] California is preparing for mass layoffs and larger class sizes.[33] In Hawaii, the current school year was shortened by 17 days in order to furlough teachers.[34] Many school districts across the country are taking similar measures.

Although the Federal role in funding public education has traditionally been minimal, the American Recovery and Reinvestment Act (ARRA) provided assistance. The ARRA, passed in February 2009, included roughly $81B dedicated to elementary and secondary education.[35] Overall, one analysis estimates that ARRA money will address about 30 - 40% of states' fiscal year 2009 (FY09) and FY10 shortfalls, and only about 20% of the FY11 shortfalls.[36] In other words, the ARRA has covered a little less than half of the state shortfalls to date, but will not significantly help future shortfalls.

In the short term, most states will cut teachers and staffs until financial conditions improve. Department of Education (ED) Secretary Arne Duncan has pushed for legislation to provide additional stimulus; however, these efforts will not address issues central to creating value and improving education. With an average of approximately $10,000 spent per student annually and little academic progress demonstrated, the infusion of money without a coherent grand strategy has yielded marginal gains at best.[37] As we'll discuss below, we've concluded world class education doesn't require super-human cash infusions, just great leadership, excellent teaching and a bureaucracy that doesn't stifle innovation.

Decentralization and its Impact on Educational Standards

Many believe our system's lack of standardization derives largely from the Tenth Amendment's strictures against federal involvement in areas not specifically reserved for it.[38] The reality is Federal money and laws have been impacting education since before the 1958 Sputnik scare generated the National Defense Education Act.[39] We've also seen a trend since World War II to reduce the number of districts from 100,000 to less than 20,000 now.[40] What really keeps our system decentralized, however, is a powerful "states rights" culture. This is in contrast to France and England's centralized systems, but similar to the strong decentralization we saw in Germany. What is clear is that the centralization or decentralization of the government system doesn't represent a magic bullet for education – schools in both systems succeed and fail. What about common standards and tests? Wouldn't they be a solution to much of what ails our education industry?

For the last twenty years, common standards have been debated and reworked between the federal government and state boards of education. In response to the 1989 report "A Nation at Risk", President George H.W. Bush and the state governors agreed on ambitious national academic goals, including the demand for common state standards so that "American students will leave grades 4, 8, and 12 having demonstrated competency in challenging subject matter" in English, mathematics, science, history, and geography.[41] Those standards never came to be, so by late 2001 the No Child Left Behind (NCLB) Act required states to set their own standards for

core subjects and ensure that every child reached them within just over a decade. Unfortunately this resulted in a dumbing-down of standards across the country and has provided fresh impetus to reauthorize the law that most now refer to by its pre-NCLB name – the Elementary and Secondary Education Act (ESEA). [42]

The common core hasn't died, however. The latest draft of common core state standards for both English and math proposed by 48 states (minus Alaska and Texas) closed for comment in April 2010 and should be final by the end of May.[43] Though final adoption of common core standards is anything but assured, states have made great strides toward a much needed, rigorous, easily understandable and quantifiable set of standards.

The National Governors' Association, a prime mover in this area, is fairly confident the standards will be widely adopted.[44] The holy grail is not standards, however, it's assessment. Our conversations with experts to include the Educational Testing Service (ETS) indicate that high quality common assessments are critically important to a quality educational system. The test development experts or psychometricians at ETS support common assessments even though they'll be harmful to their industry. They also noted that common science and social studies standards are politically much more difficult.

K-12 Teachers and Administrators

It should be a given that teachers are the cornerstone of effective education. Not all experts agree a good teacher is central to student performance, however. Some believe socio-economic background or parental involvement are equally, if not more, important. [45] One recent study of identical twins with different teachers, however, showed that teacher quality makes a significant difference in outcomes for students.[46] Although difficult to quantify empirically, "A growing body of evidence suggests that teachers are the single most important school-based influence on children's learning."[47]

In 2008, there were 3.7 million teachers in primary and secondary schools, making teaching one of the largest professions in the U.S.[48] The average salary for a public school teacher was $50,816.[49] In 2004, more than 220,000 students completed a teacher training program.[50] According to one estimate, "only 60% of those trained to be teachers, move directly into teaching jobs," and of those, only 50-60% will still be teaching after five years.[51] In certain high-demand fields (special education, math, science and bilingual), as well as in certain geographic areas, there are significant teacher shortages.[52]

Efforts to build and maintain sufficient numbers of effective teachers have spawned an array of collateral issues. These include: recruitment, qualification, retention, merit pay, advancement, and administration. Retaining the best teachers remains linked to school leadership, improved quality of life, and creating prestige in teaching as a profession. Of all the considerations important to teacher retention, we think school leadership is most critical - specifically the leadership and mentorship of principals. [53] During our seminar's travel, we observed the vast benefits accruing from strong instructional leaders. This was especially true of our visits to two urban charter schools – Knowledge is Power Program (KIPP) Infinity Middle School in New York City and the Boston Renaissance Charter School. In each of these schools, principals are positively influencing their teachers, students and the surrounding community. Their students are quite disadvantaged but still perform exceptionally well on district and state assessments. In general, their performance was in stark contrast to neighboring schools. In one case a traditional public school shared the same building but achieved widely divergent results.

There is no one single element that makes for a successful education, but anyone who has been inspired by a teacher knows they can make all the difference in the world.

ESEA Reauthorization

In its recent blueprint for ESEA reform, the Obama administration seeks to rewrite NCLB.[54] Rather than have every student meet a state standard by 2014, the key tenet is to have every high school graduate "college and career ready."[55] To do so, the blueprint scraps NCLB's fixed requirement for every child to be proficient by a certain date in favor of rewarding growth of each child each year. As Secretary Duncan explained recently: "under No Child Left Behind, if you are a sixth grade teacher and I came to you three grade levels behind, if I left you a year behind, you'd be labeled a failure, and your school would be labeled a failure."[56]

The blueprint will give "Reward" schools at the top of the heap additional funding and flexibility so they can continue to innovate. The bottom 5% of schools will still face closure or drastic restructuring. "Warning" schools in the next 5% lose flexibility and gain oversight. The blueprint doesn't mandate states adopt common curricula but it does tie important federal funding to common standards adoption.[57] The National Governors Association opposes this link as being dangerous to the developing common core standards but the federal government has always used funding hooks to influence the states.[58] We believe the states should be given leeway to continue developing their common standards; the Federal Government can benefit from spending flexibility by letting them do so. However, should the effort falter, we would support a more explicit federal push.

The ESEA reform blueprint also deals with our most critical issue – teacher quality. It calls for ratings of "effective" and "highly effective" based, in part, on student growth. Additionally, the blueprint ties money to a locality's distribution of great principals and teachers. ED believes and we agree that underperforming schools often get the short end of the stick when it comes to recruiting and retaining great teachers and leaders. In addition to many other goals, the blueprint seeks to improve literacy, math and science by incentivizing common core standards in those areas but it also seeks grant money to promote a well-rounded education through areas such as art, music and history.

Generally speaking, there is consensus regarding the importance of teacher quality; however, not everyone agrees with ED's approach. The National Education Association (NEA) recently published its wish list for ESEA reform. It wants significantly reduced testing, reduced class sizes, tougher teacher qualification requirements and "research based interventions" for failing schools.[59] Despite these disagreements, the tenets set out in the blueprint along with the policies espoused by the Race to the Top are for the most part a sound basis for the next decade's education industry policy.

Race to the Top

One can't travel in education circles these days without getting an earful about the administration's great race – presumably the antithesis of what some have described as NCLB's race to the bottom.[60] In a nutshell, the program took just over $4B from the ARRA funds and offered it to the states that could come up with the best plan on how to spend it. The first leg of the race has been run with Delaware and Tennessee winning $600M between them.[61] A second round of packages is due in June 2010. The Race is not without its critics, but one thing is clear,

it moved many state legislatures to pass school reform legislation which almost certainly would not have not have happened without a $4B carrot.[62]

Using less than 1% of the ARRA money, the Race's top priority was comprehensive school reform across six factors. The factors include standards and assessments, data systems, great teachers and leaders as well as turning around the lowest achieving schools. Other priorities include improving science, technology, engineering and math (STEM) and innovating in early learning.[63] A recent addition carved out of the original total is a $350M prize pot for consortiums of at least fifteen states to help them develop common assessments to complement the expected common standards discussed earlier.[64] This program is further evidence the administration isn't waiting for ESEA reauthorization to incentivize those things it considers important.

Although the administration considers Race to the Top a big success, it's not without its critics. Some have questioned the judges' decisions on the elaborate 500 point scoring tally. Others criticize what they see as a change of the rules capping the award money for the second round. Finally, some states are simply questioning whether the money with all the strings that come attached to it is worth the time and effort.[65]

CHALLENGES

The industry faces challenges that are both material and conceptual. The nation lacks a cohesive and coherent strategy for guiding the education industry and addressing its shortfalls. As a result, there is an unacceptable and unsustainable gap in achievement across social and economic lines. Tight resources affect the role of unions, teacher training and retention, as well as decisions on depth, breadth and focus of curricula. To stay globally competitive, U.S. students need stronger foundations in math, technology and the sciences.[66] This section identifies three challenges: achievement gap, unions, and global competitiveness.

The Achievement Gap

The industry's most challenging issue is closing the "Achievement Gap" between different subgroups of students.[67] Prevailing educational wisdom has been that student academic performance was largely based on socio-economic indicators such as poverty and race. This pervasive theme made it easy for policy makers to conclude students' academic success might be pre-ordained. Improvements to urban schools, therefore, would yield only marginal increases in test scores.

On the contrary, further evidence points to disparate results within similar socio-economic subgroups in different school districts. For example, fourth graders in Boston, Charlotte, New York and Houston scored 20-30 points higher on the latest national math assessments than their subgroup counterparts in Detroit, Milwaukee, Los Angeles and Washington, D.C. (with these trends consistent if not increasing by the eighth grade).[68] In other words, it's not just the socio-economic status of a student that drives achievement, it's teachers, parental involvement, and the influence of their in-class peers. Most of all, we believe it's teachers.

NCLB, unfortunately, missed the mark when addressing the achievement gap and school accountability. Its emphasis on meeting a minimum standard steered teachers focus to students on the "cusp of being proficient" vice those performing either below or above the standards.[69] Arguably, the failure of traditional schools to close the achievement gap has contributed to the emergence of increased market competition, particularly in urban districts, by providing more

alternatives to public schools. We're not convinced of the value of more and more standardized testing. We like the approach of Montgomery County, Maryland, however. In one of the nation's top school districts, the superintendent of twelve years set forth high expectations (1650 on the Scholastic Aptitude Test (SAT) for every student) and then back mapped to Kindergarten how to meet those expectations in every grade.

Closing the achievement gap therefore, requires any ESEA reauthorization address improvements to public schools—specifically focusing on improving the quality of K-12 teachers. These improvements can come by way of improved training and certification, more comprehensive evaluation systems, leadership, mentoring, compensation and retention based on merit, or any combination thereof. Unfortunately, implementing some of these measures require either union concessions or legislation relaxing the current systems that are based so heavily on seniority. Removing these barriers could prove to be the linchpin to closing the achievement gap.

Collective Bargaining, Tenure and Unions

As previously noted, teachers are the core of the education industry. Their recruitment, training, retention, and, when necessary, removal are fundamental aspects of maintaining a healthy system. TTWhile unions may have given greater power to teachers in terms of wage increases and job security, in the opinion of many, their rigidity is stifling creativity and the sharing of best practices.[70]

Teachers have historically not been treated as "professionals," but rather as "education laborers" who typically were not the primary bread winner in a traditional family. This coupled with powerful and unaccountable principals sometimes resulted in teacher abuse.[71] From about 1916 to the early 1960s, visionaries like Al Shanker worked hard to organize teachers and to lobby for laws permitting them to bargain collectively.[72] The mostly urban American Federation of Teachers (AFT) led the way in cities like Chicago and New York. It later became affiliated with the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO).[73] Over time even the mostly suburban NEA began to serve its members more as a labor union, than a professional association. Unquestionably, these organizations made teachers' lives better.

While we believe teachers need protection from unfair practices, we don't see how rigid adherence to tenure (most K-12 teachers have it after three years) and seniority are going to further the nation's education goals. We heard many school leaders lament the inability to conduct meaningful mentoring or professional development with their teachers because unions refused to extend the school day by even 30 minutes. Yet failures in these two areas have been shown to be a top reason for poor teacher retention.[74]

Some union leaders are willing to work with school leadership to increase effectiveness. Ten years ago, the president of the NEA said: "We as an association cannot continue to sidestep accountability for the quality of our members' work. We cannot tolerate—and we certainly shouldn't protect—that small minority of school employees who fail to measure up professionally."[75] An AFT representative told us that longer hours and summers were on the table as long as better pay and child care came along with them. We haven't always seen these words put into practice. Some unions are stuck in an old paradigm and resist change in principle.[76] We're reminded quite unfavorably of General Motors' troubles over the last decade. We can't afford to let the education industry go the way of the car industry in this country.

Some states and school district are taking steps to limit union rigidity through legislation (for example, removing principals from collective bargaining in Massachusetts) or hard-nosed

negotiations. In recent weeks, we have seen two key examples of how these efforts can succeed and how they can fail. In Washington, DC, Chancellor Michelle Rhee agreed with teachers on a new contract limiting tenure and instituting pay for performance after a two-year negotiation.[77] In Florida, Governor Charlie Crist, in the midst of a senatorial campaign, vetoed legislation with even more far-reaching provisions after teachers and unions rallied political pressure against the measure.[78] Unions and other teachers' professional associations will remain part of the political landscape. Working with them or limiting their power legislatively when necessary is the best way to keep the industry competitive.[79]

Global Competitiveness

The U.S. competitive advantage in education has been slipping away for decades. A 2007 Organization for Economic Co-operation and Development (OECD) report ranked the U.S. 18th for higher education graduation rates among developed economies, and in first place for college drop-outs.[80] Between the 1960's and 1990's, the U.S. went from first to thirteenth place among OECD countries in percentage of workers with at least a high school education.[81] In the 2006 Program for International Student Assessment (PISA), U.S. students scored lower than the OECD mean on both science and math.[82]

The U.S. Bureau of Labor Statistics forecasts that of the top twenty-five fastest growing occupations from 2008 to 2018, seventeen are in science and technology fields, with twelve of these requiring a bachelor's degree or higher.[83] As author P.W. Singer recently noted during congressional testimony, the country had fewer STEM graduates last year than in 1986 while we saw a 500% increase in those completing parks, recreation, leisure and fitness studies.[84] The workforce of tomorrow must be well educated and literate in STEM. If American learning institutions cannot provide a knowledgeable workforce, corporations will go elsewhere to find qualified employees.[85]

While the CEO referred to in the introduction needs U.S. citizen engineers for much of the national security work his company does, others are increasingly finding the educated workforce they need in places like India, China and others.[86] One might ask why these companies don't simply pay more for engineers, thereby increasing demand and, with it, supply. In a global capitalist world, however, businesses may not remain profitable if they have to stimulate the education industry on their own. The nation's capacity to innovate for economic growth and the ability of American workers to thrive in the global economy depend on a broad foundation of math and science learning, as do our hopes for preserving a vibrant democracy and the social contract with young people that lies at the heart of the American dream.[87]

To catalyze a renewed focus in STEM and our nation's ability to innovate, some say we need a national rallying cry reminiscent of the space race (to answer the USSR's launch of Sputnik); others say the situation is not that serious. A careful analysis of the international test data reveals U.S. scores on standardized math and science tests takes us right back to the achievement gap. Students from wealthy districts score among the highest in the world (albeit against their average scores).[88] Because our average scores have stayed relatively flat over the last twenty years, we can attribute our global decline to either our competitors doing a better job with all their students (to achieve a high average) or to those countries having some real super-star performers bringing up their average scores. Either way, it causes concern for our economic competitiveness in this globalized world.

But it's not all STEM either. Despite the documented cognitive and linguistic benefits of learning a foreign language at a young age, early foreign language education in the U.S. has long competed for time and money with what are considered the "core" curriculum subjects. Previous national policies that have guided our primary and secondary education system highlighted the disparity between "core" and "non-core" curriculum. NCLB required nationwide standardized testing for mathematics, reading, and science, but not for foreign languages, although federal education mandates consistently tout foreign language as a core subject. It underscores a viewpoint that foreign language, as part of the curricula in the current K-12 education system is more of a "luxury" than a "necessity".

Why do most of our schools teach German and French? These are not the most strategic languages for our economy or national security. If federal money is to be spent on language instruction, we recommend it be spent on languages with a direct impact on our national security.

There are other challenges to the education industry but focusing on these will go a long way toward strengthening the industry, our economy and our national security.

OUTLOOK

> *In the 21st Century, when countries that out-educate us today will out-compete us tomorrow, there is nothing that will determine the quality of our future as a nation and the lives our children will lead more the kind of education that we provide them. Nothing is more important.* — ***President Barack Obama***[89]

Imagine for a moment one possible future of U.S. education:

By late 2010, thirty states voluntarily adopted common core standards in math and English. Four years later, science and social studies standards were approved, and common assessments for math and English were widely adopted by the states. These tests were developed with federal grant money from the Race to the Top. Pressure built on the non-adopting states and by 2015, the last hold-out (Texas) adopted the common core standards and assessments. The assessments enjoy a great reputation – similar to the prestige of the advanced placement tests since the 1990s. Although the tests were far from perfect, consistent and systematic testing allow for more accurate evaluation of student progress and teacher competency. More impressively, cooperation between the states has yielded broadly similar tests, curricula and textbooks (actually e-textbooks are projected onto many student's desks by tiny pocket-sized devices provided by Apple, Verizon and Microsoft – most textbook publishing houses and makers of school backpacks have gone bankrupt). Some impressive virtual curricula have been developed which tailor themselves to the individual student's pace . . . some are even deployed through smart tablets provided to schools by Google and AT&T. Netflix's CEO started a trend when he financed an educational gaming company that embedded self-paced math instruction in video games.[90] Streaming videos of movie stars giving lectures and leading exercises on math, science, history and geography also proved popular.

In addition to cooperating on common standards, the states saw less need for multiple school districts (tiny Rhode Island, for instance, went from almost 50 districts down to three; divided into urban, suburban and rural schools). These efforts reduced the cost of administration drastically. Additionally, the Education Department's work with Congress to streamline over 300 federal education programs under the department's purview into just those few most central to instruction has further reduced overhead in schools and school districts.

In the constrained budget environment of 2025, all these initiatives have freed up the funds necessary to pay teachers more and have given school leadership the time to provide the mentoring that young teachers need to meet their potential as well as giving them the confidence to stay in the field for a career. The changes to federal student loans and Pell Grants are already showing dividends. The Education for National Security Act of 2015 set aside half of all federal college funding subsidies for students willing to pursue (and complete) degrees in STEM and critical world languages.

George Washington University started a trend when it offered a combination of a substantive undergraduate degree (STEM, foreign language, English, history) and a master's degree in education in only four and a half years. Now almost all universities offer these degrees while the University of Phoenix and many others offer a highly respected version almost exclusively on-line (the exception is the required half year internship now required for all teaching degrees). The vast majority of young teachers now have a substantive degree in the subject they are teaching and receive training on the application of evolving technologies that can transform teaching practices and prepare students for their careers.

This flood of young graduates into the teaching profession coupled with a steady stream of experienced professionals drawn from the corporate world by the prestige, higher pay and the pay for performance now offered across the country, has dramatically increased teacher competency as well as student achievement. Pay for performance based on the demonstrated learning of each student over the academic year has proven effective. The teachers' professional organizations (unions and collective bargaining faded away beginning in 2020) are very supportive of the practice and are constantly working to improve the process. Perhaps most important to teacher recruitment, success and retention has been the proliferation of residency programs like the one pioneered by Tom Payzant in Boston in 2003.[91] More than anything else, this model borrowed from the medical profession has contributed to the professionalization of teaching and to its growth.

The 2023 Trends in International Mathematics and Science Study (TIMSS) assessment showed the U.S. to be a close second worldwide in math behind India. The 2024 PISA showed us first in reading for the second time in a row. This wasn't easy as the U.S. continues to be a land of immigrants with starkly different languages and backgrounds. The incentives for and investment in high quality pre-schools for all kids beginning at age three has paid huge dividends for these students as well as for those who are socially or economically disadvantaged. Following a previous Maryland model, the National Governors Association helped develop innovative federal, state and local partnerships with the existing daycare industry and the now educationally based federal head start program to provide high quality pre-school education that allowed parents to work while giving all kids (especially those with language or socio-economic disadvantages) the chance to enter Kindergarten well on their way to learning.

Economists don't all agree but many are saying the U.S. education system has significantly contributed to cities like Detroit, Washington D.C. and Los Angeles, breaking the cycle of poverty and turning their urban centers into enviable places to live. The CEO of a top nano-robotics company speaking recently at National Defense University's Industrial College of the Armed Forces informed us she was completely confident the pipeline of young engineers from virtual universities all over the country were good enough to keep both our national defense as well as our commercial sectors the envy of the world for the foreseeable future. That same week, the Secretary of State, told the students at the school he was confident the State Department, Department of Defense and the intelligence agencies were all on track to fill their

critical language positions by 2035. These architects (along with the Department of Education) of the successful inter-agency National Security Language Initiative for Youth (NSLI-Y), which began foreign language immersion programs in 2010, are justifiably proud of the achievement.

Some might see this vision of America's education future as fanciful. The cost, however, of not moving the U.S. education industry in this direction is to continue down the slippery slope of low standards, dwindling economic power, and, indeed the weakening of our national security.

GOVERNMENT GOALS AND ROLE

Friedrich Nietzche said "In large states public education will always be mediocre, for the same reason that in large kitchens the cooking is usually bad." The Bush administration had a formal strategy through the year 2012 to avoid mediocrity. It had three overarching goals and sixteen metrics supporting the NCLB core concepts.[92] While the new administration doesn't have such a formal strategy document, the Race to the Top and ESEA reform blueprints described above do a pretty good job of articulating where the government is headed over the next decade. Keeping Nietzsche's postulate in mind, we offer recommendations for government's role but first a bit about why that's so challenging.

Why is Education Reform so Difficult

A senior educator recently said ". . . there is no such thing as the status quo. There never has been. What you hear today are today's ideas for school reform. In the past, there were other ideas. In the future, there will be still others. There's always school reform."[93] A quick glance at history reveals a new education fad nearly every decade since World War II. First, the progressive movement emphasized cooperation over content and grades. Sputnik brought the emphasis back to STEM. The 1960s and 70s saw education pulled back and forth among groups looking for certain rights – this was the era of court imposed desegregation and busing. The 1980s brought the Nation at Risk report along with the back-to-basics and accountability movements which still survive today.[94] Most of the legislative and regulatory requirements brought about by previous education reforms have not disappeared – they've merely been tweaked by subsequent legislation.[95]

If we've got the solid underpinnings of a national strategy and almost everyone agrees we need reform, why is education reform so difficult?[96] The reasons are myriad. First, most major education reform requires legislation at the federal and state levels as well as implementation by a variety of local education bureaucracies as described earlier in the decentralization discussion.

Perhaps most importantly – more than with any other complex policy debate – everyone has an opinion about education; often firmly held but supported by little empirical evidence. One educator we talked to described the Washington political process as an "evidence free zone." Even firmly held opinions change. Noted educational historian Diane Ravitch recently publicly reversed her long held stances on testing accountability and school choice.[97]

It's often difficult to get experts to agree on even the most common sense fundamentals. For instance not all experts agree that a good teacher is central to student performance. Many believe that socio-economic background and parental involvement are equally if not more important, despite evidence previously noted that teacher quality is key. During the course of our study, we sometimes felt that education reform over the past six decades has been like a big

experiment on our children without the benefit of much scientific method. We asked if education were a medical experiment, would it be ethical? In the enlightened year 2010, we do not agree on standards, testing, teacher pay, funding or even how to educate gifted or struggling students. We don't know how important preschool is. We don't even have a common list of criteria for measuring university effectiveness. Nonetheless education reform goes on. We've looked at where the education is today and where we hope it can be in the future. To get there, our prioritized list of recommendations follow:

1) Incentivize state and local governments through Federal legislation and policy to improve teacher professionalism and competence (The Race to the Top's requirements are a good start). We share union concerns about tying too much of teacher pay to student achievement on poorly designed standardized tests.

2) Strongly support common core standards and high quality assessments including those beyond math and reading. It's our judgment, however, that ESEA reauthorization should stay silent on it as long as it appears the states are making concrete progress.

3) Move Head Start from Health and Human Services to the Department of Education, making it an explicitly early-education program. Although the program predates the Education Department moving it and giving ED more control would mean that more districts could follow the lead of Montgomery County, Maryland and leverage the program to get more disadvantaged youngsters into preschool by age three so they are prepared to learn by Kindergarten.

4) Set aside some percentage of federal college grants and loans to those majoring in STEM fields as well as strategic languages. We propose 35% STEM and 15% strategic languages as a reasonable start. While the government should encourage everyone to get post-secondary education, we should make those investments strategically.

5) Strongly incentivize states to institute early dual immersion language programs – a Race to Fluency, anyone? Not only is language fluency important to our national security but studies show it works best when it begins early and it improves student performance in other areas. [98] This would need to be a whole of government effort requiring, among other things, creation of a separate visa category to recruit native language teachers.

6) Keep overall K-12 education funding stable between 3.75 and 4% of gross domestic product (GDP).[99] This equates to roughly $500B per year for K-12 education, and is roughly equivalent to the 2006 education spending level. The money should provide clear incentives to the states but less than 1% of it should provide for Race to the Top-like innovation. The states need stability in addition to innovation.

ESSAYS ON MAJOR ISSUES

The following two essays expand on important issues identified above. The third is an analysis and personal anecdote about a niche education market.

UThe Achievement Gap Through the Charter Lens

Almost 1.2 million students were enrolled in 4,132 charter schools in 2006–07. During that year, 410 new charter schools opened.[100] This remarkable growth reflects both despair at the state of some public schools and a hope that charters are the answer to previous failings.

Charter schools are publicly funded schools that operate independently of state laws and district policies. In return they are held accountable for meeting performance standards. Most are in urban areas with high percentages of minority and low-income families. Typically, they are founded by groups of educators, parents, community leaders, or private corporations. They operate under a charter, a written contract between the founders and the state or school district. The charter outlines how the leaders will operate and manage the school, how the students will be taught, and how achievement will be measured. Charter schools that fail to meet standards can be closed, and their success is mixed: A 2009 Stanford University report analyzed 70 percent of students attending charter schools and compared their academic progress with that of demographically similar students. It found 17 percent of charter schools performed better than traditional public schools; about half performed at the same level; and 37 percent performed worse than traditional public schools.[101] Significantly, minority and low-income students performed better in charter schools when compared to traditional public schools.[102]

Charters have become an important alternative to traditional public schools, and an analysis of the public school system through the charter school lens reveals problems with poor teachers, lack of parental involvement and, a misdirection of funding. But these are symptoms and not the root cause of the achievement gap. The root cause of the achievement gap facing the U.S. education system is twofold: Part one is socioeconomic and rooted in the adverse effects of poverty and the breakdown of the family structure; Part two is even more profound because it gets to the heart of the education establishment, which is characterized by entrenched interests fighting determinedly against efforts to reform the system.

When charter schools are successful, it is not because of less bureaucracy or more accountability or better teachers or more funding but because of all of these things and more. They adapt to serve their communities. They set high expectations. They use their resources and freedom to set rigid discipline rules. They extend the school days and school year. The teachers work longer hours and days to ensure extra tutoring and parent involvement. They connect community leaders, parents, and the school. Through all of these efforts, *the charters are successful because they intercede* in the chaotic home lives of families, relieving to some extent the adverse effects of poverty and the breakdown of the family unit. *They are allowed to intercede* because the parents and students patronize the school of their choice and not the school chosen for them by bureaucrats who would never allow their own kids to attend the very schools they demand these kids attend.

First and foremost, successful charter schools are far more aligned internally (people, task, formal and informal structures) and are more responsive to changes in the external environment when compared to traditional public schools operating in similar minority, low-income urban environments. By coincidence or design, many charter schools exhibit what numerous studies have identified as success factors for schools serving students in poverty:

- *A clear school mission with consistent and understood goals*
- *A cohesive, rigorous and when needed differentiated curriculum*
- *High expectations for students; positive climate and high morale*
- *Safe and orderly environments*
- *Instructional time and methods that maximize opportunity to learn*
- *Administrative autonomy*
- *Parent contact and involvement*
- *Collaboration and sharing of best practices among Administrators, teachers, and counselors;*
- *New teachers socialized into the academic-focused environment and assisted with instruction*[103]

Moreover, the effects of poverty and the breakdown of the family structure, like the education establishment, can be shown to contribute to the achievement gap. Both D.C. and NYC have very high rates of poverty. The Equality of Educational Opportunity Study commissioned by the United States Department of Health, Education, and Welfare in 1966, was expected to document that minority, low-income students performed poorly in school because they lacked resources.[104] Instead, it found the effect of school resources on student achievement was modest compared to the impact of students' family backgrounds.[105] The U.S. Department of Education conducted additional research in 2001 to determine the effectiveness of Title I schools. Key findings were that individual and school poverty had a clear, negative effect on student achievement and that students who attended schools with the highest percentages of poor students performed worse on both reading and mathematics tests.[106]

Author: LTC Debora Theall, USA

Virtual Education: The 21st Century Classroom

> *Today, we have no symbol as obvious as a Russian satellite to remind us of our global competitors, but there are many smaller signs fast approaching on the horizon. The world is changing at a rapid pace, and many of our students lack the skills to succeed in the global knowledge economy. ... This is not just an education issue; it's an economic issue, a civic issue, a social issue, a national security issue, and it's everybody's issue.*
>
> *Margaret Spellings, Secretary of Education (2005-2009)*

This current challenge in U.S. education is defined by the perfect storm of an economic recession, ineffective education reform, large numbers of undereducated immigrants and a failing infrastructure. Other successful industries have responded to challenges that threatened their existence by utilizing technology to optimize process efficiencies, improve quality and reduce costs. The education industry must take those same steps toward technological innovation. Virtual education provides solutions to key challenges and can propel a transformation of the U.S. educational system for the 21st century.

The U.S. spends more per student on education than nearly any other country without achieving the desired results.[107] While a number of solutions must be implemented to meet this crisis, virtual education provides the most hope for the widest range of students and with cost-savings potential. If applied effectively, virtual education can accelerate the pace of reform by ensuring long-term cost savings that also enable the education of students on an individual level and at an individual pace and time. Perhaps most importantly, virtual education has proven to increase learning performance above traditional, face-to-face instruction.[108]

Virtual Education's Growth and the Empowerment of Personalized Learning

Virtual education encompasses many things, including online education, web-based education, and E-learning. It "overlaps with the broader category of distance learning, which includes correspondence courses, educational television and videoconferencing."[109] The technological achievements of the personal computer and the Internet have enabled tremendous advancements in distance and virtual education and revolutionized the process of learning. The

most important advantage of online education is that it is comparatively inexpensive for both the school and the student. It makes educational opportunities available to people who would otherwise not have the means to obtain an education. The online, no-campus-required approach to education has seen the greatest explosion in both the development of programs and in student enrollment, particularly in higher education.[110]

Virtual education enables personalized learning while ensuring opportunities for extending the traditional school day and year. Additionally, students are provided access to more learning resources and connections to a wider set of 'educators,' including teachers, parents, experts, and mentors outside the classroom.[111] The same technologies also enhance teacher skills with a new educational model where "teams of connected educators replace solo practitioners and classrooms are fully connected to provide educators with 24/7 access to data and analytic tools as well as to resources that help them act on the insights the data provide."[112]

K-12 Virtual Learning

The blending of online education and classroom instruction has progressed slowly at the K-12 level. In fact, while the number of university students participating in online learning has grown exponentially, for K-12 schools online learning has been an option only for the last decade. This is beginning to change, with 75% of public school districts now offering online options (including both courses that are fully online and those that are a blend of online and face-to-face instruction). Sixty-six percent of school districts with online students anticipate their online enrollments will grow.[113] The number of K-12 students engaged in online courses in 2007-2008 exceeded one million, but perhaps most startling, this number reflects an increase of 47% over the number enrolled just two years previously.[114]

Although it is premature to form a firm conclusion, data indicates that the average K-12 per-pupil cost of online learning is less than half that of the cost for a traditional public school.[115] Clearly, the innovations now evolving in K-12 schools have the potential to leverage reform on a much greater scale far into the future.

Higher Education Virtual Learning

University online enrollments are growing at rates far in excess of the total higher education student population. "Over 4.6 million students were taking at least one online course during the fall 2008 term; a 17 percent increase over the number reported the previous year…(additionally) more than one in four higher education students now take at least one course online."[116] A variety of institutions are meeting this demand, both for-profit and nonprofit universities and colleges, as well as major corporations. For-profit universities offer both on-campus and online programs or deliver courses exclusively online. The University of Phoenix is the largest and most financially successful for-profit university with both on-campus and online choices. Although it has a relatively low graduation rate, Phoenix is a stepping-stone for many students who transfer to more traditional universities to complete their degrees.

In order to build learning organizations, many corporations have developed universities with online capabilities and work collaboratively with other institutions to provide college credit to their students.[117] Recent industry entrants are the for-profit companies that provide college-level, online courses at significantly reduced prices and that are accepted by partner universities

for traditional college credit. Once such example is StraighterLine, a venture that offers many online, general education courses for a flat monthly fee of $99 plus $39 per course.[118]

In the current knowledge economy, providers must meet the demand of life-long learners by increasing the continuing education and training of an active workforce. Emerging technologies provide the impetus to meet this new environment and enable expanding and smarter virtual access for nontraditional students.

Author: Ms. Patti Ripple, Dept of the Air Force

When the President of the U.S. is African-American, Are Historically Black Colleges and Universities Still Relevant?

On January 21, 2009, the citizens of the United States elected Barack Obama the nation's first African-American President. In addition, African-Americans now lead Fortune 500 Companies.[119] America has made tremendous progress in the 124 years since the passage of the 13th Amendment abolishing slavery. With African-Americans now in positions of prominence in the public and private sectors, some are questioning the relevancy of historically black colleges and universities (HBCUs). As someone with strong ties to HBCUs, I will argue they remain an important component of our university system.

HBCUs have a long and storied history with a significant impact on American education. They have provided a legacy of hope and leadership to people denied opportunity based on the color of their skin. HBCUs have graduated leaders in every endeavor, from W.E.B Dubois (Wilberforce) to Martin Luther King, Jr (Morehouse), to Oprah Winfrey (Tennessee State).

There was no formal system of education for freed blacks or slaves prior to the civil war. As the country entered into reconstruction, Senator Justin Morrill spearheaded the effort to help improve higher education in the sciences, agriculture and engineering. This led to the creation of the first Morrill Land Grant Act in 1862 which gave federal land to states for starting colleges. Most of these schools, however, did not allow blacks, so Morrill sponsored the second Land-Grant Act in 1890 which required states not allowing access to black students to open segregated schools exclusively for blacks. This act created sixteen HBCUs.[120]

After the federal mandate of desegregation coupled with litigation from the National Association for the Advancement of Colored People (NAACP) attacking state policies on "equal" education, HBCUs found themselves newly competing for students with predominately-white institutions (PWIs). As court rulings challenging two-tiered systems were implemented, some HBCUs (such as West Virginia State) now had majority Caucasian student bodies.

In both K-12 and college, a large achievement gap still exists between blacks and whites. The African-American graduation rate is 43 percent nationally, twenty points lower than the Caucasian graduation rate of 63 percent.[121] HBCUs can help address this gap. Currently, the 104 HBCUs account for just three percent of all colleges and universities but host 20 percent of all African-American undergraduates.[122] Further, HBCUs "…graduate over 50 percent of African-American professionals; …over 50 percent of African-American public school teachers;[123]" and "50 percent of African Americans who graduate from HBCUs go on to graduate or professional schools."[124] Male HBCU grads initially earn eight percent less than their African-American counterparts at PWIs. However, this gap diminishes, and over time black male HBCU graduates will earn six percent more than their PWI counterparts.[125]

The fit between a college and student is a key component of a successful experience. Often HBCUs provide an environment that makes students feel they belong. This nurturing is critical: "Blacks at HBCUs are also more likely to persist toward a degree and to report a more rewarding overall college experience relative to their counterparts at mixed [PWI] institutions."[126] Indeed, this environment at HBCUs encourages blacks from disadvantaged economic and scholastic backgrounds to attend college.

Why Attend an HBCU, A Personal Perspective

From fifth grade through high school, we lived in a predominately-white Philadelphia neighborhood, and I attended Catholic Schools where I was usually one of two blacks in the class. Although I experienced a wonderful childhood, it was fraught with episodes of overt and covert racism. For example, each time I went to a new school, the school automatically placed me in the lowest educational track, even though I maintained an A-B average. I felt such sweet revenge every time my mother forced the school to move me to the appropriate class and I made excellent grades. I went on to graduate high school in the top ten percent of my class.

I decided to attend Howard University instead of a PWI for three main reasons: its reputation; my older brother graduated from Howard's Law school; and attending a premier HBCU allowed me to go to a challenging school with academically gifted students who understood me, my background, and my perspective. I no longer experienced the racism that plagued me before. For the first time, I had African-American professors. In my junior year at Howard, partners in two of the largest accounting firms (Price Waterhouse and Peat Marwick) taught two of my accounting courses. These African-American partners proved to be excellent role models. Based on my performance at Howard and the relationship I maintained with these men, I landed an accounting job with the Philadelphia office of Peat Marwick, the largest public accounting firm in the world at that time.

Recommendations

The United Negro College Fund (UNCF) states that 93 percent of students it supports at HBCUs qualify for financial aid.[127] In the recently passed healthcare legislation, HBCUs will receive $2.5 billion as part of the education package.[128] Additionally, on February 26, 2010, President Obama signed an executive order strengthening the White House initiative on HBCUs, increasing funding by $100 million.[129] Money from the federal government and organizations like the UNCF help, but HBCUs must help themselves more. Too few HBCU alumni support their school; only an estimated 20-30 percent of graduates financially contribute to their alma maters.[130] HBCUs must become more aggressive in seeking donations from alumni, concerned citizens, and corporate partners. This will allow them to put more resources into infrastructure and programs, enabling them to better compete with PWIs for black students.

HBCUs should exploit the STEM crisis by developing comprehensive programs that target these disciplines. Currently, HBCUs produce over half of all black engineering undergraduates and 40 percent of all black undergraduates majoring in math, biology, agriculture and physical sciences.[131] A perfect example to take advantage of this national shortage is the partnership that exists between select HBCUs and the Office of Naval Research (ONR) in which the ONR financially supports each school's STEM program.[132] The UNCF should establish and administer a STEM scholarship program.

PWIs relentlessly recruit talented African-American high school students. Moreover, with graduation rates at some of the best PWIs above 90 percent for African-Americans, recruiting the best and brightest black students by HBCUs is significantly harder than it was in the 1960s.[133] HBCUs must greatly boost their own recruitment efforts. My eleventh grade daughter in Fairfax County is taking advanced placement and honors courses; is maintaining a 3.5 grade point average; and is a number one chair in the school's orchestra. She receives recruiting mail from five to ten schools everyday, but has yet to receive a single letter from an HBCU, not even Howard, where both my wife and I are alums. This is unacceptable.

HBCUs are just as vital today as they have ever been. Just as no one questions the relevancy of Catholic colleges (Notre Dame, Georgetown) or Baptist institutions (Baylor, Campbell), no one should question the relevancy of role or mission of historically black colleges and universities. They offer a quality education, and they provide an opportunity and a supportive environment to many who may have no other chance at a college education.

Author: COL Victor Harmon, USA

CONCLUSION

What's the purpose of education? Ultimately government's goal for the education industry should be to graduate a significant portion of the population who are able to: 1) participate meaningfully in a vibrant democracy; 2) contribute to a growing economy; and, 3) lead fulfilling lives. Of course, all this must be delivered for a reasonable investment of society's resources.

What shape should the education industry take? Many of the rationales for local control are outmoded. That said, a completely centralized system is unnecessary and undesirable for educational success. At the federal level there should be a clear strategy linked to economic and national security with stable funding over time. The states should seek to implement that strategy according to their own needs but with far more commonality than we have seen historically.

What about the achievement gap and the question of excellence versus equity? It's a false choice. A thriving country needs to invest resources in bringing up the disadvantaged as well as pushing the top students to even greater heights. The trick is how to do that. More and more federal regulations are not the answer. Continued collective bargaining for teachers based on rigid seniority and tenure are likewise not the answers.

If education starts and ends with great teachers, we need to professionalize our educators. Better pay is useful in luring and retaining quality people but isn't the magic bullet. Things like professional development and mentoring by quality leaders with reasonable authority to hire and fire will make teaching a desirable profession and attract more talent.

Per pupil spending is likewise not a panacea. Excellent instructional leaders create the conditions for learning whether a classroom has a fresh coat of paint and the latest laptops, or not. Successful leaders and teachers also involve parents to the maximum extent practical. Failing that involvement, however, teachers and leaders find ways to spend sufficient time with and provide sufficient support to disadvantaged students to allow them to meet the high expectations they set for them.

There aren't any quick fixes to restore America's education industry to global preeminence. Just as in the school room, however, we must set that high expectation of

preeminence and then back map what it will take at every level of government to get it done. Our recommendations should provide a step in that direction.

Endnotes

[1] The Introduction to the report states "Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world. This report is concerned with only one of the many causes and dimensions of the problem, but it is the one that undergirds American prosperity, security, and civility. We report to the American people that while we can take justifiable pride in what our schools and colleges have historically accomplished and contributed to the United States and the well-being of its people, the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. What was unimaginable a generation ago has begun to occur--others are matching and surpassing our educational attainments." U.S. Department of Education, "A Nation at Risk: The Imperative for Educational Reform. A Report to the Nation and the Secretary of Education," (April 1983) Archived version, http://www2.ed.gov/pubs/NatAtRisk/recomm.html (accessed May 19, 2010).

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[3] W. Steven Barnett and Ellen Frede, "The Promise of Preschool, Why we Need Early Education for All," *American Educator,* Spring 2010, http://www.aft.org/pdfs/americaneducator/spring2010/BarnettFrede.pdf (accessed May 16, 2010).

[4] Ibid., 22.

[5] Conversation with Montgomery County, Maryland Education Officials, February 19, 2010.

[6] Interview with a cultural attaché at the French Embassy, Washington D.C., April 19, 2010.

[7] U.S. Department of Education, Institute of Education Science, National Center for Education Statistics, *Fast Facts,* http://nces.ed.gov/fastfacts/display.asp?id=65 (accessed May 18, 2010).

[8] Ibid.

[9] Presentation by a representative of the Home School Legal Defense Association to the Education Seminar, March 1, 2009.

[10] U.S. Department of Education, Institute of Education Science, National Center for Education Statistics, *Fast Facts*, http://nces.ed.gov/fastfacts/display.asp?id=30 (accessed April 25, 2010).

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