

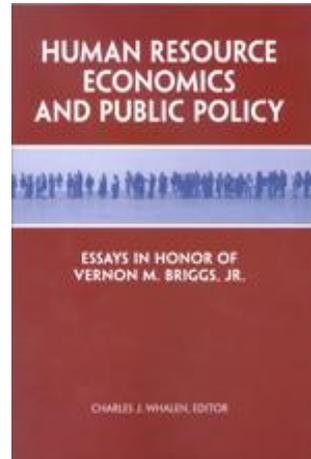
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# Learning Systems for a Globalized Economy: Do Americans Face Tough Choices or Tough Times?

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# 10

## Learning Systems for a Globalized Economy

### Do Americans Face Tough Choices or Tough Times?

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This chapter reflects on two of Vernon Briggs's long-time interests: human resource development and policy-oriented research. Briggs's early research with me on minority participation in apprenticeship programs was designed to increase our understanding of discrimination in these programs and to develop policies and programs to improve minority participation in the skilled trades. Our research helped model, develop, and expand the successful outreach concept that played an important role in overcoming the barriers to minority and female participation in the skilled and professional occupations. Similarly, in this chapter I examine a proposal, being implemented in at least five states (Massachusetts, New Hampshire, Delaware, Arizona, and New Mexico), to radically reform school and workforce-development systems. The design for these proposals is based on extensive international comparative research by the New Commission on the Skills of the American Workforce (NCSAW), sponsored by the National Center on Education and the Economy (NCEE). If these demonstrations are successful, we expect this reform model to spread to many other states now considering our proposal. The NCSAW research also examined the influence of immigrants on workforce quality in the United States and other countries, which is another of Vernon Briggs's research interests.

In its December 2006 report, *Tough Choices or Tough Times*, the NCSAW analyzed some of the daunting economic, labor-market, education, and workforce-development challenges the United States faces

after decades of changes in technology, the globalization of product and labor markets, and dramatic demographic twists. These interrelated developments have caused rising skill requirements for family-supporting jobs, declining real wages for most American workers, and growing inequality of income, wealth, and opportunity. A restoration of the broadly shared prosperity Americans experienced before the 1980s is thwarted by obsolete policies and institutions rooted in the less knowledge-intensive and less globally oriented mass-production system that dominated America's twentieth century economy and shaped our education and training institutions.

In this chapter, I focus on the need to modernize our education and workforce-development policies and institutions. However, these reforms, while necessary, are not adequate to restore broadly shared prosperity, which also requires economic policies that increase the demand for skilled workers, social safety nets to promote human resource development and limit labor-market competition, and labor policies to further limit wage competition and give workers a greater voice at work and in the larger society (Marshall 2000). It will be difficult, for example, to achieve equity—our most serious education problem—unless we address the problems associated with poverty. However, it would have been difficult for a diverse, bipartisan group like the NCSAW to reach sufficient agreement on the components of economic, social, and labor-market policies to make meaningful recommendations in the six-month period during which the commission met before issuing its report (even with the 18 months of staff work conducted before the commission was convened). I nevertheless will address these issues in this chapter.

I will also discuss the background of the NCSAW; outline its conclusions, guiding principles, and recommendations; address some of the criticisms of the commission report; and present my conclusions on these matters.<sup>1</sup>

## **BACKGROUND**

In the late 1980s, the NCEE was concerned about the implications of the globalization of product markets for American workers and

school systems (Marshall and Tucker 1992). We were particularly worried about growing inequality, American companies' ability to compete in global markets, and declining real wages for workers with a high-school education or less—trends that started in the 1970s. Declining real wages put serious strains on middle- and low-income families, whose earnings could only be maintained by having family members—mainly women—work more hours, a process that not only strained family life, but clearly is self-limiting. The growing college/high-school lifetime income differential, which increased for individuals with a bachelor's degree from 50 percent in the late 1970s to 61 percent by 2006 (Baum and Ma 2007), suggested that improving education and training was at least a partial solution to declining real wages for non-college-educated workers. Individuals with professional degrees have lifetime earnings up to 2.5 times those of high school graduates. NCEE's leaders generally accepted the broad expert opinion that at least two years of college was necessary to enable workers to support themselves and their families.

These considerations prompted the NCEE to create the Commission on the Skills of the American Workforce (CSAW), which I co-chaired. CSAW was a bipartisan group including members from business, labor, government, and education. Its 1990 report, *America's Choice: High Skills or Low Wages*, boosted the movement to improve the standards for schools and workforce-development institutions (CSAW 1990).

### **The Commission on the Skills of the American Workforce**

The CSAW concluded, on the basis of extensive national and international research, that traditional American school systems were not up to the challenge of educating all children to high standards. The problem was not, as many critics alleged—including *A Nation at Risk*, the 1983 report of the Reagan administration's National Commission on Educational Equity—that the system had deteriorated relative to some past golden era (National Commission on Educational Equity 1983). Rather, the problem was that a system that reflected the needs of the mass-production economy was grossly inadequate for a more competitive, knowledge-intensive world. The challenge therefore was to determine the kind of schools and systems needed to enable Americans to compete on terms that would restore broadly shared prosperity under modern conditions.

To explore this question, the CSAW examined available research and conducted extensive interviews with educators, elected officials, scholars, and business and labor leaders in the United States, Singapore, Japan, Ireland, Denmark, Germany, and Sweden. These comparative analyses led the CSAW to conclude that traditional American school systems were too bureaucratic, gave too little autonomy to local schools, lacked coherent instruction systems linked to high standards and diagnostic assessments of student performance, and did not have incentive systems that rewarded schools and teachers for performance.

Traditional school systems were also based on the debilitating theory that learning is mainly due to innate ability, which absolves schools of responsibility for educating all students to high standards and led to school cultures, procedures, and policies that denied high quality instruction to most—especially low-income and minority—students, thus seeming to confirm their learning theory.

Traditional schools were, in addition, based on authoritarian management and governance systems that assumed teachers did not need highly professional training and working conditions to provide basic academic knowledge and skills to most students. Cost became a major success criterion, placing downward pressure on teachers' salaries and subjecting teachers to arbitrary and discriminatory practices.

To protect teachers from these abuses, many states and school districts adopted uniform salary schedules, tenure, and administrative due-process procedures. It was not surprising, therefore, that when teachers acquired the legal right to organize and bargain collectively in the 1960s and 1970s, they became the most unionized college-educated workers in the country. It also was no surprise that the resistance to unionization by school boards and administrators caused teachers to adopt a fairly adversarial industrial union response that limited school managers' discretionary powers and codified many employment practices—for example, seniority and uniform salary schedules—that became institutionalized and therefore difficult to change.

The CSAW's recommendations for reforming American schools included the following (CSAW 1990): internationally benchmarked standards for students; a coherent instruction system linked to these standards that included diagnostic assessments of students' work and more effective curricular materials to help students meet the standards;

professional standards for teachers that included career ladders to enable teachers to improve their incomes while remaining in teaching; and greater autonomy for schools to adopt methods and materials to help students meet the standards.

The recommendations were supported by teachers' unions, many school systems, and by state, local, and federal policymakers. Unfortunately, most states adopted low standards that were less expensive and easier to meet, but they did not adequately prepare students for college or demanding postsecondary learning opportunities.

### **America's Choice School Design**

The CSAW's most enduring legacy is the America's Choice School Design (ACSD), based on the commission's high-performance school concept. The specific features of the ACSD, which has significantly improved the achievement of disadvantaged students in more than 6,000 schools, include:

- High internationally benchmarked student performance standards.
- Continuous, data-driven, and diagnostic assessments that reveal student progress toward these standards, which are conspicuously displayed in America's Choice Schools.
- Curriculum materials that stress mastery of the fundamentals of core subjects, instead of the superficial approach used in most U.S. schools, which relies on drills, memorization, and duplication.
- "Ramp-up" programs that focus materials, time, and resources on preventing dropouts and helping struggling students meet the standards.
- A theory of learning and teaching based on modern cognitive science, which demonstrates that learning is due mainly to hard work and supportive learning systems, not innate ability.
- Professional development for teachers and principals that helps them to create high-performance learning systems in their schools and classrooms. Subject matter coaches, as well as

model classrooms and schools, are employed to demonstrate best practices for teachers and administrators.

- School management and governance systems that foster a collaborative learning environment, efficient (data-driven, research-based) learning and diagnostic processes, and parental and community involvement in school governance and student learning.
- A support system for participating schools provided by the NCEE's America's Choice division (now America's Choice, Inc. [ACI], a for-profit NCEE subsidiary) that includes cluster leaders for several schools; continuous training for principals, teachers, and coaches; curriculum materials; technical assistance; and research publications on teaching, learning, and school performance in general, as well as in particular subjects.

America's Choice provides technical assistance and other help to schools for five years, after which the schools' professionals take over with help from ACI as needed.

The ACSD has been thoroughly evaluated by the Consortium for Policy Research in Education (CPRE), whose first America's Choice evaluation was titled *Moving Mountains* (Supovitz, Poglioco, and Snyder 2001). CPRE concluded that, compared with traditional schools, the ACSD significantly improved student achievement. NCEE and ACI have continued to improve the model on the basis of internal and external research and evaluation. They have, for example, developed a very effective mathematics curriculum using international benchmarking and relying on pretesting in American schools.

### **Developments Since 1990**

Several developments in the 15 years following the CSAW's 1990 report prompted the NCEE to create the new commission.

Labor markets were globalized by the entry of China, India, and former Soviet-bloc nations into the international trading system, doubling the size of the global labor market. Labor-market competition intensified because of dramatically declining communications costs ac-

celerated by the collapse of high-tech prices and China's emergence as the world's leading exporter of information technology. This caused American college-educated workers to compete directly with similarly educated workers in India, China, and other countries, whose wages were much lower than those in the United States. The NCSAW found, for example, that similarly qualified engineers' salaries in 2005 were \$7,500 a year in India and \$45,000 in the United States. The implication, of course, was that, with prevailing institutions and policies, international convergence was likely to cause U.S. workers' wages to fall and Indian wages to rise. These developments likewise meant that the CSAW's assumption of high skills or low wages was no longer valid: American workers were competing with workers who had high skills *and* low wages.

A second significant development causing us to reconsider our 1990 *America's Choice* recommendations was the decline of real incomes for college graduates. As Table 10.1 shows, between 2000 and 2007 median incomes for males declined at every educational level except for a slight increase for PhDs (\$358 or 0.42 percent), who, in 2007, accounted for only 1.8 percent of male income recipients. Women experienced slight income gains in the bachelor's-degree-or-more category (containing 30 percent of women income recipients) with median income gains of \$801 (2.0 percent). Thus, the only significant income gains for college graduates between 2000 and 2007 were for the 1.5 percent (in 2007) of women with professional degrees, who gained \$6,328 (11.5 percent). Despite these gains among female professional degree holders, in 2007 such women earned substantially less than men—\$61,875 versus \$100,000.

These data confirm that in a globalized labor market, even highly educated workers are at risk, causing us to question our 1990 conclusion that education beyond high school would enable American workers to maintain and improve their incomes. Of course, people with more education tend to have higher earnings, but higher education alone will not prevent declining real income.

A third important development was the "demographic twist" caused by escalating immigration and the pending retirement of the baby-boom generation. The American economy benefited greatly from the employment of the 78 million well-educated baby boomers, who are expected

**Table 10.1 Median Income, People 25 and Older, by Educational Attainment, 2000–2007 (in 2007 dollars)**

Educational attainment	Male				Female			
	Median income 2000	Median income 2007	Change 2000–07	% Change 2000–07	Median income 2000	Median income 2007	Change 2000–07	% Change 2000–07
Less than high school								
Less than 9th grade	17,014	16,625	–389	–2.29	10,290	10,539	242	2.42
9th to 12th (no diploma)	22,774	20,643	–2,131	–9.36	12,116	11,982	–134	–1.11
High school graduate	33,087	31,337	–1,750	–5.29	18,245	18,162	–83	–0.45
Some college, no degree	40,117	37,447	–2,670	–6.66	24,281	23,532	–749	–3.08
Associate degree	45,785	43,006	–2,779	–6.07	27,842	27,668	–174	–0.62
Bachelor’s degree or more	64,401	62,421	–1,980	–3.07	39,911	40,712	801	2.00
Bachelor’s degree	59,094	56,826	–2,268	–3.84	36,624	36,167	–457	–1.25
Master’s degree	71,919	71,097	–822	–1.14	48,907	48,077	–830	–1.69
PhD	85,813	86,171	358	0.42	61,960	61,554	–406	–0.66
Professional degree <sup>a</sup>	100,779	100,000	–779	–0.77	55,487	61,875	6,388	11.50

<sup>a</sup>Professional degrees include MD, DDS, DVM, LLB, JD. Current Population Survey, 2008 Annual Social and Economic [ASEC] Supplement, pp. 8–17. <http://www.census.gov/apsd/techdoc/cps/cpsmar08.pdf>.

SOURCE: U.S. Census Bureau (2008a).

to retire in droves between 2000 and 2020. The baby boomers are being replaced largely by immigrants, most of whom have much lower levels of education (Ottaviano and Peri 2006). In fact, immigrant education profiles are bimodal: legal immigrants, mainly from Asia and Europe, have more education than natives, whereas illegal immigrants, mainly from the western hemisphere, have less. The net immediate effect of immigration has been to lower the average educational attainment of our workforce (Ottaviano and Peri 2006).

The net impact of immigration on American wages is hotly debated, but there is little doubt that the large-scale influx of competing foreign workers has lowered real wages for high-school dropouts (Marshall 2007). Because of their bimodal education distribution, immigrants compete at the high and low ends of the educational distribution. According to economic theory, immigrants improve the incomes of natives who are complementary to them but reduce the wages of competitors. In terms of their educational impact, large numbers of immigrants with limited English proficiency create a pressing need for more effective adult education.

Since 1990 international data on education and workforce development has also expanded, including research on the workforce, adult literacy, school performance, and workforce development.

### **Workforce**

Some of the most useful comparative workforce data comes from the Organisation for Economic Co-operation and Development's (OECD) Program in International Student Assessment (PISA) (OECD 2006).

By the end of the 1990s, the United States no longer had the best-educated workforce in the industrialized world, as it had in the 1970s. By 2000, it ranked eleventh out of 20 industrial countries in the percentage of adults who had completed high school, and several lower ranked countries were gaining ground.

The United States was the only OECD country where younger adults (aged 25–34) were not as well educated as the older cohort (aged 45–54). Young Americans not only had lower proportions of high-school graduates but also the lowest proportion of people with associate or baccalaureate degrees (39 percent; Canadians, 54 percent; Japanese, 51 percent; and Koreans, 49 percent).

The United States also had greater inequalities than other OECD countries. Although the United States had the lowest proportion of young adults (aged 25–34) who completed high school or college, it had the highest proportion of older adults (aged 55–64) with this educational attainment (36.2 percent, compared with 34.5 percent for Canada and 19.2 percent for Japan). These statistics reflect the continuing impact of the post–World War II GI Bill, the baby boomers, and rapid improvements in education levels in other countries during the 1980s and 1990s. Ironically, many other countries have lowered the financial barriers to higher education while we, despite the positive effects of the GI Bill, have made higher education less affordable for low- and middle-income students.

### **Adult literacy**

Statistics on years of schooling are less accurate measures of knowledge and skills than those provided by the National Adult Literacy Survey (NALS) and the International Adult Literacy Survey (IALS). The 2003 NALS revealed that 93 million American adults scored at the lowest two of five reading levels. Another 4 million could not take the reading test because of language deficiencies. On assessments of quantitative skills, 123 million adults scored in the lowest two levels. Adults with these literacy levels are unable to read complex material or function very well in society or at work; they therefore have limited earning prospects. Indeed, 70 percent of inmates in U.S. correctional institutions scored at the lowest two literacy levels.

According to a 2004 Educational Testing Service (ETS) study of national and international literacy surveys, “Our overall performance is mediocre at best and . . . as a nation we are among the world’s leaders in the degree of inequality between our best and poorest performers” (Sum, Kirsch, and Yamamoto 2004, p. 1). With respect to immigrants, the ETS study had four notable findings:

- 1) “A majority of our nation’s 16–65 year old foreign born demonstrates proficiencies in the lowest literacy level (Level 1) on each of the NALS and IALS literacy scales, while fewer than 10 percent performed at levels 4 or 5, the highest literacy levels” (Sum, Kirsch, and Yamamoto 2004, p. 1).

- 2) “The average literacy proficiency of the nation’s immigrant population is considerably below that of their native born peers in the United States and their foreign born counterparts in most other high-income countries that participated in the IALS assessment” (Sum, Kirsch, and Yamamoto 2004, p. 1). Indeed, on their mean composite proficiency scores, U.S. immigrants ranked eighteenth among the 20 high-income countries (Sum, Kirsch, and Yamamoto 2004, p. 21). The percentile ranking along the world skills’ distribution for immigrants with less than a high-school degree—probably the vast majority of undocumented workers—was at the fifth percentile (Sum, Kirsch, and Yamamoto 2004, p. 24).
- 3) Immigrants’ involvement in labor markets, as well as their participation in lifelong learning and civic and political affairs, is strongly associated with their literacy scores (Sum, Kirsch, and Yamamoto 2004, pp. 2–3).
- 4) The literacy proficiencies of U.S. foreign-born residents have a much higher degree of dispersion than either natives or their peers in other high-income countries, reflecting immigrants’ bimodal education distribution.

Although the ETS picture of relative levels of immigrant literacy is pretty grim, it probably understates the severity of the problem because these analyses are partly based on the 1994 IALS, which does not include the subsequent surge in illegal immigration. Immigrants accounted for over half of U.S. civilian workforce growth during the 1990s and 86 percent of the employment growth between 2000 and 2005.

### **School performance**

National and international assessments confirm America’s growing disadvantages in school performance, literacy, and school completion levels. The main lesson from the Trends in International Math and Science Survey (TIMSS) is that American students’ performance is relatively high at the lower grades, but it is mediocre or worse in the higher grades (National Center for Education Statistics 2003). This is confirmed by the OECD’s PISA studies of the performance of 15-

year-olds. The PISA assessments are significant because they come near the end of students' secondary school careers and are performance exams; that is, they test ability to use knowledge and skills, not just the students' ability to memorize. The latest PISA assessments placed U.S. students' mean reading scores at fourteenth of the 22 countries assessed; their mean math scores placed them twentieth of 23 countries (OECD 2006).

The 1999 TIMSS study placed only 5 percent of U.S. students in the top 10 percent of the world's best performing eighth graders; 45 percent of Singaporean students and 32 percent of Japanese students were in this category.

The United States also had relatively low high-school graduation rates. Of 100 students entering the ninth grade, 32 do not graduate and only 18 receive associate or baccalaureate degrees in three to six years. It is estimated that roughly half of the nation's Hispanic and black students do not graduate (NCSAW 2007, p. 34).<sup>2</sup>

The evidence also suggests that American schools are not very efficient. As noted earlier, the performance of our students does not compare very favorably with that of other high-income countries, even though we have the second-highest per-student elementary and secondary school expenditures of any country. Similarly, in 2002, U.S. per-student spending (adjusted for inflation) was 2.64 times as high as in 1971 (from \$3,400 to \$8,971) (Greene and Forster 2004; NCSAW 2007, p. 4). But, for the same period, fourth-grade National Assessment of Educational Progress reading scores were only slightly higher (from 208 to 219; U.S. Department of Education 2008, Indicators 12 and 17).

### **Workforce development**

It was equally clear that America's workforce-development system was not very effective, especially for low-income workers with limited schooling. And, employer training perpetuates already large inequalities by providing the most training to higher income managerial, professional, and technical workers and relatively little training to frontline workers. One reason employers underinvest in training is that worker mobility makes it uncertain that companies can recoup their training investments (the "free rider" problem).

The federal workforce-development system also does very little to develop human capital. The system, considered to be an extension of the welfare system, is not very clearly connected to either private-sector employers or secondary schools and has grossly inadequate resources to address our mounting workforce needs. In fact, in constant dollars, federal workforce-development resources were cut from \$30 billion in 1978 to about \$3.1 billion in 2006 (Fischer and Twomey 2007).

Similarly, federal–state adult education programs reach less than 5 percent of those who need these services: as noted previously, about 93 million adults score at the two lowest reading levels (National Commission on Adult Literacy 2008, p. 3) and 123 million in the two lowest math levels, yet only about 3 million participated in federal–state adult education programs. And a large number of these participants are immigrants taking English classes (National Commission on Adult Literacy 2008, p. 10). Given the obvious need for lifelong learning, a system based on educating mainly children and adolescents clearly is inadequate.

Higher education is a bright spot among American learning institutions, especially some of our community colleges, technical institutes, and research universities. But these and other postsecondary institutions could be much more efficient if they were linked to secondary schools and employer training by standards that improved horizontal and vertical mobility and enhanced the measurement, data, and accountability systems needed for continuous improvement.

## **THE NEW COMMISSION ON THE SKILLS OF THE AMERICAN WORKFORCE**

The developments described in the last section caused the NCEE to reconsider the CSAW's underlying assumptions, and the NCSAW was created to address these issues. As with the CSAW, the NCSAW was bipartisan and represented a broad spectrum of former public officials, educators, and business, community, foundation, and union leaders. The commission's deliberations were supported by extensive research

for over two years in the United States and 14 other countries, including India and China.

The commission's review of global economic conditions supports two basic conclusions. The first is that earnings in competitive global markets will tend to converge because of rising wages in low-income countries, falling wages in high-income countries, or rising wages in all countries but faster increases in low-income countries. Obviously, the third option would be the best choice for all countries, but since the 1970s, falling wages in high-income countries appears to be the option produced by market forces and prevailing economic and social policies. These trends imply continuing inequality in wealth, income, and opportunity; declining real wages for most American workers; and serious economic, political, and social problems.

The second major conclusion from the NCSAW's deliberations is that to reverse these trends and maintain or improve their incomes, American workers need a creative edge because routine work will either be automated or outsourced to lower wage countries. The commission's main objective was therefore to determine how the United States could foster creativity and innovation. The sources of creativity and innovation are not well understood, but there is general agreement that sound basic education is essential. The necessary skills include complex communications, interpersonal relations, judgment, and problem solving (i.e., the ability to think systematically and strategically, learn, adapt to change, use information and communication technology, and impose order on chaotic information). These kinds of skills and knowledge clearly are not likely to be produced by most traditional American schools, which neither teach nor model higher order thinking skills.

The commission's recommendations were based on several assumptions. The first was that, for reasons discussed earlier, our learning systems must be radically reformed because the nation's education challenges cannot be met effectively by existing schools and workforce-development institutions.

The second assumption was that education and workforce-development policies *alone* cannot restore broadly shared prosperity. The commission did not elaborate on these other policies, but in my view, they include social safety nets (including universal health care), minimum and prevailing wage regulations to prevent low-wage com-

petition, basic labor standards as part of the rules for international economic transactions, and economic policies to promote value-added competition instead of wage competition, including heavy support for research and development.

Much larger and more effective worker adjustment programs for those displaced from noncompetitive industries would be a good human capital investment and could help overcome resistance to an open and expanding international trading system, as they do in other countries. Because of the pervasiveness of globalization's impact, it makes no sense to restrict adjustment services to those who can demonstrate damage from international trade. We could pay for these programs by replacing regressive federal payroll taxes with graduated rates; removing the income cap, currently set at \$94,200, and repealing recent tax cuts on incomes above \$250,000.

It should be noted that improving productivity in a highly competitive global economy will not necessarily improve workers' incomes because employers now have much more bargaining power with workers and governments than they had in less-global mass-production economies. The ability to outsource and automate means that companies can whipsaw workers and maintain or reduce wages and increase profits even when productivity is rising, as was the case between 1995 and 2005, when productivity rose by 33.4 percent, while average wages and benefits (insurance and pensions) rose by only about half that amount (Mishel, Bernstein, and Allegretto 2007, p. 111). And, as noted earlier, between 2000 and 2007, among income recipients 25 and older, over 98 percent of men and over two-thirds of women were in education categories with declining real income (Table 10.1).

Labor policies are required to balance worker and employer power, including strengthening workers' ability to organize and participate in workplace decisions. In a global economy, labor standards must be part of the international economic rules in order to prevent companies from whipsawing workers and countries. In addition, fiscal policy should be used to moderate growing income inequalities in more competitive markets.

Even if it is not politically feasible to promote broadly shared prosperity, improving education and workforce-development systems is good public policy because of the high returns on education. Under

these conditions, better educated people and nations will improve productivity and incomes.

### **Principles and Recommendations**

The commission's recommendations were based on the following principles.

- Improve teacher quality through better pay and working conditions, teacher training, and professional development.
- Reprogram funds for higher performance.
- Let students advance when they are ready.
- Create positive performance-based incentives for teachers, schools, and students.
- Give schools the flexibility to innovate and educate all students to high standards.
- Create a fair school finance system based on student needs.
- Reform the nineteenth century school governance system to enable schools to more efficiently educate all students to high standards through a lean, performance-oriented managerial system and standards-driven instruction processes with reciprocal accountability (i.e., hold schools accountable for results and elected officials accountable for providing the resources needed to achieve those results).
- Provide fewer, much higher quality tests that are diagnostic and linked to internationally benchmarked standards and high-quality curricula material.
- Create the same opportunities for working adults as for full-time students.
- Create seamless, lifetime learning systems connected by standards, with easy access and supports.

The NCSAW's recommendations were designed to accelerate the establishment of high-performance schools and school systems, as well as to create much stronger and more highly coordinated workforce-development systems to provide training, education, and labor-market

services for adults. The commission recommendations were intended to be suggestions, not a blueprint for all states and school districts.

## **Schools and School Systems**

### **Create a coherent system of standards, assessments, and curricula**

Curricula should be based on the mastery of key ideas, concepts, core facts, and the capacity for creativity and innovation. The K–12 standards should be designed to get all students ready for college or demanding postsecondary training. The commission envisioned the creation of a set of Board Examinations similar to those used in other high-performing countries. These examinations could be created by states or national and international organizations, and they would be in a set of core subjects based on syllabi provided by the Board.

The commission assumed that, for most students, the first Board Exam (BE1) would come at the end of the tenth grade, but since students would be allowed to advance at their own pace, they might take BE1 earlier or later. Students would be allowed to take BE1 as many times as needed to pass. The standards for BE1 would be benchmarked to the exams given by the countries that do the best job of educating their students. In any case, the standard should be no lower than the requirements for entering the state's community colleges without remediation.

Students who pass BE1 would be guaranteed the right to enter a community college to work toward a two-year technical degree or the requirements needed to transfer to a four-year state college. Students who have good enough scores on BE1 could stay in high school to prepare for BE2, which could be like the exams given by the International Baccalaureate, Advanced Placement, or other state or private equivalents. Students who do well enough on BE2 could enroll in colleges or universities of their choice (subject to admission) and receive college credit for the courses leading to BE2. Some of these students might start college as juniors.

These Board Exams should be designed to motivate students to meet high standards. Continuing student assessments at the elementary and secondary levels would be linked coherently to the standards required

for BE1, as would syllabi and instruction materials. School professionals and instruction systems would provide students enough assistance to allow them to proceed at their own pace but never to fall too far behind. Experience with ACS D, and other high-performance school designs, suggests that these procedures could greatly improve graduation rates.

### **Create high-performance schools and districts**

Several actions must be taken to create high-performance schools and districts. One of the most important is to break schools' dependence on local property taxes by having education funded mainly by states, supplemented by the federal government.

Funding equity should be improved by allocating funds to schools on the basis of student-weighted budgeting, based on the educational needs of different categories of students. Schools with the most disadvantaged students would receive larger allocations of resources. Combining student-weighted budgeting with district-wide public-school choice, as is done in Seattle, for example, would give schools incentives to recruit disadvantaged students.

Teacher quality is very important for high-performance schools. States and school districts therefore should work with teachers' organizations to design systems that would compensate teachers more for performance (as is done in Denver, Toledo, and some other districts) and less for seniority. The main objective should be to recruit teachers from the top third of college students. Traditionally, schools have had many very good teachers because discrimination limited the nonteaching opportunities for women and minorities. As discrimination declines and the pay and working conditions for teachers fail to improve, fewer academically talented students are attracted to teaching. The National Council on Teacher Quality, for example, concluded that a disproportionately high number of teacher candidates came from the lower end of the academic ability distribution measured by SAT and ACT scores (U.S. Department of Education 2002). And a 2002 National Bureau of Economic Research study concluded that the likelihood of a highly talented (ranked in the top 10 percent of high school students) female entering teaching fell from 20 percent in 1964 to 11 percent in 2000 (Corcoran, Evans, and Schwab 2002).

Fortunately, recent evidence suggests that more teachers are now being recruited from the top half of college classes (Gitomer 2007). This is being done in part through initiatives like the University of Texas's UTeach initiative, an innovative teacher preparation program for math and science majors.

Beginning teachers' salaries should be raised to the current median—about \$45,000 a year; there should be high standards for beginning, intermediate, and master teachers; and career ladders should enable educators to improve their earnings and remain in teaching. All teachers should be hired by local schools but paid by the states.

School boards should no longer operate schools. Instead, they should contract with autonomous local schools that agree to meet performance standards for students and school professionals. These contracts should encourage performance incentives for teachers and schools to improve student performance and provide incentives to attract teachers to hard-to-fill positions in math, science, special education, or low-performing schools.

In addition to negotiating and monitoring performance contracts, school districts would support schools in various ways, including certifying helping organizations to provide technical assistance, professional development, or other services and providing data and research to promote continuous improvement.

These recommendations could end the conflict over charter schools and private-school vouchers. Any school that met the prescribed standards could become a contract school, but no school that refused (or failed) to meet these standards could receive state funds.

The commission's recommendations could change the role of teachers' unions in several ways. Teachers' unions would negotiate compensation contracts with states and working conditions with districts and schools. Those unions could also be certified as helping organizations to assist schools with school performance, as is currently being done in New York City, Boston, Newark, Minneapolis, Toledo, and other urban school districts. Indeed, teachers' unions have comparative advantages in helping urban school districts design instructional systems tailored to urban conditions, as is currently the case with the American Federation of Teachers (AFT), the National Education Association (NEA), and some local unions affiliated with the Teachers Union Reform Network

(TURN), especially the United Federation of Teachers (UFT) in New York City. The teachers' unions would continue to represent teachers in negotiating rules for economic and working conditions, but they could assume larger roles in promoting teachers' professional interests in advancing their knowledge and skills and improving their schools. For example, several TURN unions have followed the Toledo Federation of Teachers' lead in taking greater responsibility for teacher quality through peer assistance and review programs (Marshall 2008).

### **Promote more efficient resource utilization**

The commission assumes its recommendations could yield a net national savings of \$58 billion per year as a result of students spending fewer years in high school, requiring less remediation, and avoiding course duplication (since different class levels and schools would be linked with performance standards). These savings would be divided equally between increased investments in universal preschool for three- and four-year-olds, higher teachers' salaries, and stronger support for disadvantaged students.

### **Provide universal high-quality preschool for three- and four-year-olds**

There is abundant evidence that good preschool programs that allow children to start school ready to learn are a very efficient use of education resources. Research suggests that a dollar spent in early education can save \$7 to \$17 in social and education costs over children's lives. Unfortunately, only about a fourth of the nation's eligible children are enrolled in publicly funded preschool programs. Since the quality of these schools is very important, major efforts should be made to improve the standards, training, and compensation for preschool caregivers.

### **Provide greater support for disadvantaged students**

The most important challenge for American school systems is to narrow the large performance gaps between advantaged and disadvantaged students. This problem becomes more important as immigrants with limited English proficiency and levels of schooling become a larger proportion of school populations. This is a particularly serious problem

for many poor rural and urban school districts. Federal and state governments therefore should give high priority to educational equity and allocate funds to schools on the basis of student-weighted budgeting.

In addition, equity requires school professionals to do the following: abandon the theory that learning is mainly due to innate ability; change teacher compensation and assignment policies to attract the best teachers to schools with the greatest need; give more time and support to disadvantaged students; and provide diagnostic assessment, data, and school-specific research to strengthen educators' ability to diagnose and prescribe interventions to help disadvantaged students. Schools and districts also need to provide creative ways to involve minority and disadvantaged parents in their children's education.

### **Workforce Development and Adult Education**

Rising and rapidly changing skill requirements and the displacement of workers by technology and global competition, combined with the declining education attainment of many new workers, make it critical that we create much more coherent and effective systems to meet workers' training, information counseling, family support, and labor-market adjustment needs. The absence of an effective workforce-development system will cause workers to incur most of the costs and realize few of the benefits of change, as well as prevent the whole economy from adjusting smoothly to economic and technological changes and promoting high-value-added economic development policies. The absence of an effective workforce-development system also will intensify resistance to an open and expanding global economy. To function more effectively, workforce investment boards must have more resources, status, authority, and ability to coordinate easily with schools and community colleges, as well as with adult education, social service, and preschool providers.

To strengthen workforce development, the commission made several proposals. First, provide education paid for by the federal government to enable all adults to meet the same academic standards required for high-school graduates. A possible division of responsibility would be for the states to provide free adult education up to the ninth grade level and for the federal government to provide additional education to enable adults to meet the BE1 standard.

Adults should also be given more resources to invest in their own education through tax-advantaged individual development accounts (IDAs). The NCSAW recommended that the federal government create IDAs for every child by depositing \$500 in such accounts at birth and \$100 every year thereafter until age 16. Employers, individual family members, and others could make pretax contributions to IDAs, which would accumulate tax-free and be used only for career-related education purposes.

In addition, regional competitiveness authorities (RCAs) that combine regional workforce- and economic-development activities should be created. The RCAs would align workforce investment, economic development, and adult education and community college districts into common regions based on logical economic and labor markets to form new regional and state jobs, skills, and growth authorities. These authorities would coordinate with community colleges and other education and training institutions to provide learning systems for adults without diplomas, immigrants, and others who need basic literacy skills. The RCAs should be empowered to issue tax-exempt bonds, raise money from private sources, and have considerable flexibility in the use of state and federal funds for developmental purposes.

The RCAs would have much more power than existing workforce, adult education, and economic development boards to formulate and execute regional development plans. They also would be responsible for a reformed adult education system, including establishment of standards for program providers and instructors and creation of a process for identifying and accrediting providers who met the standards, and for monitoring compliance and quality. To link adult, career, and continued learning functions, community colleges could be designated as the primary adult education provider, assisted by other institutions, including career centers, libraries, and other adult education providers.

Like high-performance school systems, the RCAs should be performance based. They should also generate data and analyses to assess the impact of various training providers and programs on different categories of learners.

The RCAs could become important institutions for addressing America's serious adult education and training problems. These entities are called "authorities" to distinguish them from the fragmented boards

that ostensibly have had oversight of federal workforce, economic development, and adult education programs, but actually have little autonomy and inadequate financial and legal independence to work with elected officials to develop effective regional development plans.

## **CONCLUSIONS: DO WE FACE TOUGH CHOICES OR TOUGH TIMES?**

An examination of the principal criticisms of *Tough Choices* clarifies the relationships between education and the economy, as well as the challenge involved in improving our learning systems. At the outset, it is worth noting that the media and political responses to the NCSAW's report generally have been positive.<sup>3</sup> There seems to be widespread agreement that America's schools have not improved enough since the 1980s to overcome their most serious problems, especially the wide achievement gaps between advantaged and disadvantaged students. Although these gaps have narrowed in some districts, as measured by the National Assessment of Educational Progress, there has not been much change overall. Progress in some districts, and with the ACSD and other comprehensive models, nevertheless provides insights into the kinds of interventions that can narrow the achievement gaps and improve overall school performance. In particular, these experiences demonstrate the importance of developing efficient, high-performance learning processes based on coherent instruction systems driven by high standards and closely linked diagnostic assessments, high-quality curricula materials, and data systems administered by highly motivated professional educators supported by effective helping organizations such as ACI.

There also seems to be broad support for some of our specific recommendations, especially universal preschool, higher teachers' pay, student-weighted budgeting, and strengthening workforce-development and adult education systems.

Some defenders of existing school systems doubt that their performance justifies the radical systemic changes the commission proposes. They point out that the schools' main shortcomings are due to poverty, racism, or other societal problems unrelated to the schools themselves.

Since the schools cannot solve these problems, critics argue, it is unfair to blame them for the achievement gaps.

As noted earlier, the commission did not argue that education policy alone would return us to broadly shared prosperity—or perhaps even reverse the broad declines in real wages. It would be a serious mistake, however, to argue that our school systems have no responsibility for inequality or that improving education for disadvantaged students would not enhance their life chances.

Part of the equity problem is due to the schools' dependence on local property taxes. There is reason to believe that student-weighted budgeting and state and federal financing could help narrow the grossly unacceptable financial gaps. Moreover, the gaps are due in part to the still widespread assumption that learning is due to innate ability, thus absolving schools from the responsibility to educate poor and minority students to high standards. Again, experiences with the ACSD, the Comer school model (Comer 1980), and others using similar designs based on sound theories of learning and teaching, demonstrate that all students can be educated to high standards.

Inequality also is perpetuated by the widely used single-salary schedule and the common practice of assigning teachers to schools based on seniority, which usually means that the best teachers are assigned where they are needed least. There is abundant evidence, however, that a systemic approach to transforming low-performing schools, including providing financial and other incentives to attract teams of master teachers and principals to troubled schools, can significantly improve their performance.

In short, while school systems are not entirely responsible for the achievement gaps, they bear some of the responsibility; additionally, systemic changes can narrow the gaps, despite the continuation of poverty and other serious social problems. Indeed, the most effective interventions coordinate education, social services, and other support activities. It would be inexcusably fatalistic to argue that we have to solve our poverty problems before making the necessary systemic changes to significantly improve the education of disadvantaged students.

Other traditional school defenders contend that the American economy's superior performance with workers educated in these institutions proves there is nothing seriously wrong with our schools. However,

the NCSAW did not argue that all of our schools performed poorly. On the contrary, many of our suburban high schools and higher education institutions, especially community and technical colleges and research universities, perform well despite the waste of resources caused by the absence of high standards for high-school graduation, which necessitates considerable remedial work. Moreover, the American economy continues to benefit from immigrants and the baby boomers who will retire in greater numbers after 2010, a benefit that will continue long after these workers retire because of the technology they have developed. It is, however, prudent to note the negative effects on our future workforce from the demographic twist in the 20 years before and after 2000. Finally, although it has had undesirable effects on our workers, American productivity has benefited from outsourcing lower value-added work to foreigners. Given these realities, it would be a real stretch to argue that our economic performance has been due mainly to the soundness of our traditional K–12 schools or that systemic reforms in those schools would not significantly improve the life chances for their students.

Some criticisms are based on misinterpretations of the commission's recommendations. Some, for example, reject the contract school idea by equating it to charter schools, which have an uneven record, but on average have not so far performed as well as public schools serving similar students (Schemo 2004). There are, however, considerable differences between contract schools, which have to meet high standards for students, teachers, and schools, and charter schools, which do not. Moreover, contract schools would be required to affiliate with a state-approved helping organization and would be closely monitored by the contracting district (although they would have considerable autonomy to hire teachers and principals and establish a coherent instruction system required to meet state-imposed standards, which, hopefully, would be more demanding than the low standards currently used by most states). The funding system proposed by the commission could obviate the high-income school districts' fiscal reasons for opposing high standards—especially if states adopted the concept of reciprocal accountability.

A final criticism of *Tough Choices* is that we are naïve to assume that federal and state authorities will adopt such radical recommendations. Of course, these critics could be right. Whether or not we can

gain political support depends on the credibility of our evidence that the problems we face are very serious, that our existing institutions are not up to the challenges they face, that marginal changes are not likely to do much good, and that a failure to act would have serious negative consequences for our nation's future.

The media, political, and scholarly responses to *Tough Choices* have been encouraging, and there are grounds for optimism about support from the federal government and enough states to initiate the process of institutional change. By 2009, at least 20 states had shown strong interest in *Tough Choices*' recommendations and five have become part of the first cohort to implement the recommendations (Massachusetts, New Hampshire, Delaware, Arizona, and New Mexico). If the first cohort of states produces dramatic improvements in student performance, then it is likely that others will join; we expect support to spread, as it did with the ACSD. Transforming our obsolete education and training institutions will not be easy, but real change in deeply entrenched institutions never is.

## Notes

1. I chair the NCEE's board of trustees, served on the NCSAW, and agree with the main thrust of the commission's analyses and recommendations. But, as is commonly true of commission reports, I do not necessarily agree with either all of the details of that report or some of the wording of the recommendations. Similarly, my colleagues at NCEE and on the commission would not necessarily endorse all of the ideas presented in this chapter.
2. Heckman and LaFontaine (2008, p. 3) estimate that "the U.S. high school graduation rate peaked in the late 1960s and then dropped 4–5 percentage points" and "about 65 percent of blacks and Hispanics leave school without a high school diploma." These analysts find "no evidence of convergence in minority-majority graduation rates over the past 35 years."
3. The link to media reports can be found at <http://www.skillscommission.org/news.htm>.

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# **Human Resource Economics and Public Policy**

**Essays in Honor of  
Vernon M. Briggs Jr.**

Charles J. Whalen  
*Editor*

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