Teacher Accountability Conference Pre-Conference Report

Theodore Hershberg

When historians render their judgments on the last third of the twentieth century, they will agree that its defining characteristic was the emergence of a global economy. Driven by free trade, global capital markets, and an extraordinary revolution in information and communications technology, the global economy is expanding rapidly and reshaping everything in its path. The battlegrounds that lie ahead will be primarily economic, not military. Nations and regions will fight for dominance in the high value-added industries -- computers and software, robotics, civilian aviation, synthetic materials, microelectronics, biotechnology, and telecommunications -- that pay high wages and offer their employees living standards American workers have grown to expect. As Lester Thurow, Robert Reich, and others have argued persuasively, human capital will be the source of comparative advantage in the future.

Never before in history has the link between economic well-being and education been stronger, but the booming American economy helps to obscure the need for fundamental education reforms. Too many people, particularly educators and suburban parents, confuse the healthy state of the overall economy with the experience of individual families. The facts are that most Americans have not shared equally in the economy's growth. The lion's share of income gains in the last two decades has gone to the top fifth of American families. By contrast, the second fifth of families has been largely stagnant and the bottom three-fifths have actually lost ground.

Economists agree on the sources of this growing income inequality. Between 30 and 40 percent is explained by an eroding minimum wage, the decline of labor unions, and global trade -- essentially foreign goods and services entering our markets at lower prices, which has the effect of holding down American wages to remain competitive. But fully half of the explanation for the growing income inequality is due to one general variable: new technologies that favor the better educated.

Our schools always did one thing well: they educated the top fifth of their students. The poor academic performance of the remaining 80 percent did not matter much in the past because when they left school they entered a robust manufacturing economy characterized by abundant, unskilled jobs that paid decent wages. Through the 1940s, 1950s and into the mid-1960s, the typical blue-collar worker earned enough for mom to stay at home and raise the kids and to still have enough left over for a second car or even a recreational vehicle.

But the days when manufacturing generated great numbers of jobs are over, and they are not coming back. That few will ever again receive high wages for limited skills is made clear by America's Choice: High Skills or Low Wages (1990), the Report of the Commission on the Skills of the American Workforce. Its conclusion can be summarized simply: If companies around the globe can now buy fool-proof machinery to compensate for deficient worker skills, and if people in other countries using this machinery will work for $5 a day, let alone the $10 or $15 an hour that American workers want, we cannot compete on the basis of wage -- we can compete only on the basis of skill.

The typical worker in 1973 earned higher real wages than his counterpart in 1997. Our standard of living didn't fall during these years despite declining real wages largely because women entered the labor force in record numbers. In short, the changing economic reality was masked by the creation of two-income families. The end of the manufacturing era -- with its ubiquitous well-paying jobs for people with limited skills -- poses an unprecedented challenge to our schools: they must now educate all our children to a level never required before. For over a century, our schools took in millions of immigrants and farmers and taught them to respect authority, to show up on time, to work hard, and to repeat monotonous tasks. In short, our schools were the vehicle through which an entire labor force was socialized to accept the discipline of the industrial era.

But these are not the skills needed in the post-industrial, global economy. While we still desire a strong work ethic, we must appreciate the implications for education of an economy that changes at a striking and unprecedented rate. This rapidly changing economy requires workers who are flexible, adaptable, quick learners, team players, critical thinkers, and above all else, problem solvers. And these are precisely the skills our schools are not teaching.

Suburban Schools Must Improve, Too!

Polls make clear that education ranks high on the minds of Americans, but they also reveal an apparent contradiction. Upwards of 80 percent believe the nation faces an educational crisis, but less than 25 percent believe it affects their children or their school. Put somewhat differently, 80 percent of American parents grade the nation's schools "C" or below, yet 72 percent grade their own children's school "A" or "B."

The contradiction can be explained by where Americans live and how media markets operate. Only one-quarter of the nation lives in large central cities with more than 300,000 people, slightly more than half lives in suburbs, and the balance lives in exurbs and rural areas. It is predominately the news of the central city that is beamed out to the suburbs, and the urban education news suburbanites consume confirms what they know -- that, on average, their schools enjoy far lower drop-out rates, much better academic achievement scores, and far higher college enrollment. Confusing the catastrophic education news of the big city with that of the nation, suburbanites are alarmed by the problems that abound everywhere else, but complacent about what they have at home.

Unfortunately, there is no comfort in this suburban-to-urban school comparison. Worse, it functions as a sedative, a soporific that has put Americans to sleep. It has left us satisfied and comfortable, thinking that the education problem lies elsewhere -- in our cities with their large, poor, disproportionately nonwhite populations.

International Comparisons -- Not Suburban to Urban -- are the Ones that Count

The correct comparisons should be international. How do our children -- even those in our suburban schools -- compare with their counterparts in Pacific Rim and Western European nations? The evidence -- that we compare poorly -- is compelling. The Third International Math and Science Study (TIMSS, 1996) was undertaken by the prestigious and nonpartisan National Academy of Sciences. Although our 4th grade students start out near the top, their ranking falls steadily, so that by the 12th grade only two of the world's developed nations rank below the U.S. Our mediocre performance results from a math and science curriculum described by TIMSS as

"incoherent" and "a mile wide and an inch deep." We attempt to teach 25 to 30 "fundamental concepts," while our competitor nations teach 5 to 7. As a result, the math and science concepts we teach are superficially treated and poorly sequenced, and consequently far too many of our students fail to master them.

The results obtained across the nation from the New Standards Reference Exams -- rigorous, internationally benchmarked, and open-ended problem-solving tests in math and English language arts given to hundreds of thousands of students in the last few years -- are sobering as well. When the performance of students is measured against absolute standards (criterion-referenced) rather than against each other (in norms-referenced tests), nowhere in America are the majority of students performing at or above the international standard. In the suburbs of a major northeastern city, where median family income is 30 percent higher than the national average, these tests were administered to a one-fifth sample of 4th, 8th, and 10th graders in 40 school districts. While three-quarters were at or above the international standard in the ability to calculate, only between one-fifth and one-third met the international standard in math problem solving -- the quintessential skill required for the new economy.

None of this denies the booming state of the American economy nor that fact that Americans continue to win Nobel prizes. Our top fifth is indeed talented -- and well-rewarded as the income distribution data document -- and our multinational companies already draw on the talents of people worldwide. The point is that if America wants to remain a stable, middle-class democracy, we must ensure that the remaining 80 percent of our children leave schools with the skills required by the new economy. On the surface it appears that the nation is mobilizing for change. In just four years following the National Education Summit (March, 1996), when 41 governors and 49 chief executive officers of the nation's largest corporations met and agreed that the number one priority for America's schools was rigorous academic standards and internationally-benchmarked assessments, 49 states have committed to standards reform.

Standards Reform is More than "Raising the Bar" and "High-Stakes Exams"

Yet, as a front-page story in the New York Times last Labor Day implicitly revealed, the educational establishment's grasp of standards-based reform leaves much to be desired. The story never mentioned the word pedagogy -- how and what we teach. The implicit assumption was that all we have to do is kick the lazy students, teachers, and school administrators in the pants, and somehow the nation will close the skills gaps and our students will perform at the same level as their counterparts growing up in the nations of the Pacific Rim and Western Europe. Nothing could be further from the truth. Unless we also change our pedagogy to provide children with the problem-solving skills they will need for success in the new economy, standards-based school reform will fail, the have/have-not divide will grow larger, and the middle-class basis of our nation will be undermined.

Recent data demonstrate that standards alone are not succeeding at improving student achievement. According to one major survey co-sponsored by Education Week and released earlier this year, "Employers and college professors remain broadly dissatisfied with the skills of young people entering jobs and higher education." And while the authors note "strong support" among teachers, parents, and employers for standards-based reform, they report that this is not translating into substantial changes in how teachers teach and in the support they receive.

True reform requires no less than three revolutions:

A Change in Pedagogy

Because the new economy changes with striking rapidity, students can no longer memorize a set of facts and be done with it. Workers are now required who can think and learn on their own. School reform that sets demanding standards and institutes high-stakes tests without at the same time introducing a new problem-solving pedagogy in classrooms and training teachers to use it effectively is doomed to failure.

The dominant theory of learning in America's K-12 schools is rooted in memorization. Dating from the 1920s, this approach is characterized by the phrase pathways to knowledge. Students learn through drill. Dig the mental trench and then run the stuff repeatedly through it until it's learned. For most of the twentieth-century and for the vast majority of students, memorization worked just fine because the jobs at which they labored in a manufacturing economy required little innovative thinking. But in the new economy, students can no longer memorize a set of facts and be done with it. Workers are now required who can use new technologies, solve problems, and think and learn on their own throughout their lives.

Lauren Resnick, a leading scholar of learning research and standards reform, offers a contrasting approach characterized by the phrase habits of mind. Students learn to ask questions, make predictions, and use evidence to draw conclusions. Reasoning is taught -- habits of mind developed -- at the earliest ages, and over time students become far more able learners and thinkers. It is not memorization versus thinking (all subjects require mastery of facts), but memorization and thinking.

There is evidence from across the nation that all students, even those from deprived backgrounds, can achieve at high levels provided they have appropriate resources, the right pedagogy, a demanding curriculum, and effective teachers. But gains could be made faster and be achieved more broadly if we eliminated some major obstacles. The "bell-shaped curve" is perhaps the best symbol of how the old system is at odds with the requirements of the new. Ability is of course differentially distributed across the student population, but when the goal is to have all students achieve at high levels, it makes little sense to sort them out at the start into those who are defined as smart and those who are not. It is far more useful to think of a "floor" and a "ceiling," in which the floor is the international standard -- the level all students must reach -- and the ceiling is as high as individual students can reach. The issue should not be the difficulty of the standards, but the time students of different abilities are given to achieve them. A 10th grade exit exam required for graduation from high school could be a "certificate of initial mastery" (the international standard). Some students would pass the test in 8th grade, some in 10th grade, others in 12th grade, and still others would need evenings, weekends, and summer school. Those who passed in 8th and 10th grade would have four and two years, respectively, to work on a "certificate of advanced mastery," a level of excellence exceeding the international standard.

Even more significant is the belief system that lies at the core of standards-based reform: effort grows ability. From the first day of school, the central message is about effort. While advancing from grade-to-grade is based on achievement, students learn they can "get smart" if they work hard. The adults have to furnish the rest: high standards, demanding expectations, adequate

resources, and quality instruction. Other key components must change as well -- pre-service teacher education, in-service professional development, teacher recruitment, school organization, transforming principals from building managers to instructional leaders, and pre- and after-school programs -- but two further ingredients are indispensable: educator accountability and a new source of school funding.

A Change in Teacher Contracts.

For standards-based reform to succeed, the nation's entire teacher corps must undergo massive retraining so they can make effective use of the new pedagogy in their classrooms. Contracts must therefore shift from an exclusive focus on pay and benefits to performance and incentives, and they must hold teachers accountable for how much their students learn. Through no fault of their own, few of today's teachers are familiar with a problem-solving approach. This training was simply not available when they attended schools of education. But the prospects that most teachers will embrace retraining without significant changes in the status quo -- that is, without the introduction of incentives -- are poor. Certainly, the teacher pool includes many highly self-motivated professionals, who are already dedicating themselves to the difficult and time-consuming task of mastering the new pedagogy. But the retraining challenge also confronts some difficult demographics. Half the nation's teachers are above age 50 and scheduled to retire within the next ten years; it is likely that many in this age group will reject retraining, viewing it as a task for younger teachers. Anecdotal evidence suggests that many teachers believe the standards movement is a fad that will pass, and they're going to "wait it out," just as they did earlier reforms.

According to the pioneering work of statistician William Sanders, the architect of Tennessee's "value-added" approach to measuring the impact of teaching on learning, "effective teaching is 10 to 20 times more important" than other variables; it trumps class size and even family income in determining student gains in achievement. Sanders has built a vast data base with information on all students in Tennessee since 1991 and has linked their annual test results to the 30,000 teachers who taught them. In a recent example illustrating the power of his method, Sanders and his colleagues calculated the probabilities of a student from the bottom quartile passing the state's high-stakes graduation exam that is given for the first time in 9th grade. They were 15 percent if the student had a "poor" teacher sequence in grades four-through-eight, 30 percent with an "average" teacher sequence, and 60 percent with a "good" teacher sequence. The data say it loud and clear: we must not allow ourselves to underestimate the importance of effective teaching.

But as long as the contract buys essentially only the number of days a teacher must show up in a classroom, there is inadequate inducement to undergo intensive retraining. Unless educators are held accountable for the performance of their students -- achieved by switching from an evaluation system based on inputs to one based on outputs -- too few will commit to retraining and the standards reform movement will fail. Unless school districts support appropriate professional development and re-organize schools to make high student achievement their central goal, the teacher corps will not master the new pedagogy, and the vast majority of our students will be unable to achieve at high levels.

The role of teachers' unions in these changes is obviously critical. While the dominant thinking remains wedded to a focus on salaries, benefits, job security and working conditions -- the

traditional “bread and butter” issues with which industrial unions have long been concerned -- there is a growing number of the union leaders who recognize the need for change. In his inaugural address, President Robert Chase argued for “fundamentally recreating NEA as the champion of quality teaching and quality public schools.” He observed that the industrial model which served unions well in the past is “utterly inadequate” for the challenge of the future. Either “we revitalize our public schools from within,” he warned, “or they will be dismantled from without.” Sandra Feldman, President of the American Federation of Teachers, expresses similar sentiments. Similarly, the Teacher Union Reform Network -- a union-led movement that includes both the Denver Classroom Teachers Association and the Seattle Education Association -- advocate a “cooperative model of labor relations” where the union “becomes an instrument of productive change.”

In their persuasive study, United Mind Workers, Charles Kerchner, Julia Koppich and Joseph Weeres describe the remarkable opportunity that awaits teachers if they redefine themselves as “knowledge workers” in an “information age.” They urge the unions to embrace a craft union model with emphasis on excellence and high performance and to position themselves in the vanguard of change rather than fighting a holding action at its rear.

As we struggle with the concept of teacher accountability, we would do well to develop criteria to help arrive at workable definitions. Is the proposed contract fair to teachers? Does it measure value added? Does it promote a collaborative approach to professional development? Does it change the incentives sufficiently so that the large majority of teachers will want to retrain to master the new problem-solving pedagogy that lies at the heart of standards-based reform? Does it commit the school district to support this form of professional development? Will it convince the public that teachers are truly accountable for the performance gains of their students? Across the nation, school districts are developing forms of teacher accountability. In Denver, the teachers’ union and school district collaborated on a pilot study involving approximately 450 teachers and three methods of evaluating student achievement. In Seattle teachers work with their principals to set goals in advance and are held accountable to them. And in the Colonial School District outside of Philadelphia, schools are using a system that distributes individual and group awards to teachers using a value-added measurement that accounts for students’ socioeconomic status. To learn more about these efforts, Andrea Giunta and Brad Jupp (Denver Classroom Teachers Association), Roger Erskine (former president of the Seattle Education Association), and Anita Summers (professor emeritus of the University of Pennsylvania’s Wharton School) and David Crawford (Econsult president), who serve as consultants to the Colonial School District, will describe their efforts at our May 16 conference on teacher accountability.

This emerging period of dialogue should appropriately be viewed as one of experimentation. There is much that we do not currently know, including how best to measure student achievement. Which tests really get at the skills students will need in our knowledge economy? Critics claim that standards and accountability simply lead educators to teach to the test, thereby severely limiting what students learn. And this is true. Teaching to the wrong test will diminish the educational experience just as surely as teaching to the right test will expand it. We need tests that measure the skills we expect our children to master. We must therefore foster a collaborative environment for reform. In the short term, let’s treat output-based pay as above and beyond the base and step salaries unions and school districts negotiate -- as in Denver and the Colonial

School District -- while we define our criteria for accountability and find the best measurement tools available. We may end up with a system of accountability rather than a single output measure. This might include an empirical set of test results, third-party evaluations of student portfolios that collect student work from demanding project assignments, and even the consideration of additional teaching credentials, such as those awarded by the National Board for Professional Teaching Standards.

A Change in the Way Schools are Funded

The massive retraining of the nation's teacher corps will be very expensive. In Pennsylvania, the state has adopted the strategy of creating a funding pool for school districts experimenting with teacher accountability. Three districts -- including Colonial -- received up to $300,000 each last year, and the Commonwealth has plans to increase these funds to $3 million in FY01.This will work well in the short term, ensuring that school districts do not have to bear the added costs of both professional development and incentive pay that are so necessary to improve student achievement. As the number of school districts embracing teacher accountability increases, so should the funding that the state makes available. In a sense, we are dealing with a simple supply and demand model. We want to ensure that the state creates an adequate supply of funds to underwrite the cost of accountability contracts, while we build demand through meetings such as the May 16 conference by making school board members and union leaders aware of new contract approaches and of the availability of state funds to underwrite these experiments.

In the long run, teacher accountability coupled with the state's population demographics offer the opportunity to move to a more adequate system of school finance. Fifty years of suburbanization, played under zoning rules that sort out people in terms of their income, have left the nation with rich, semi-rich, middle-class, working-class, and poor communities. Perhaps upwards of two-thirds of American children now attend schools in communities where the local real estate tax, even with state subsidies, no longer provide an adequate level of school funding. This explains why in recent years there have been court challenges to local real estate taxes as an equitable source of school funding in 41 states.

One prediction about the future of local property taxes can be made with a high degree of confidence. In state after state, local real estate taxes to fund schools will be replaced with broad-based state taxes such as the personal income tax (or the sales tax) because when the Baby Boom generation retires they will demand it. The reason will not be a concern with equity, but simply that retired people on fixed incomes won't tolerate ever-rising real estate taxes, and the "Boomers" will have the political muscle to make it happen.

But how this unfolds can have either no impact or a dramatically positive one on public education. Left solely to retiree-politics, the shift from property to income taxes will occur in revenue-neutral terms -- that is, each new personal income tax dollar will replace a current real estate tax dollar. There will be individual "winners and losers" in this shift (e.g., renters and rich people living in frugal homes will pay more), but no new dollars will be available for schools.

At present the public is justifiably skeptical about adding new dollars to the school status quo, and the data support their reluctance to increase school funding. In Getting Ahead, Isabel Sawhill and Daniel McMurrer of the Urban Institute estimated that between 1970 and 1994 real per pupil expenditures increased by 83 percent, student-teacher ratios dropped by 22 percent, and the

percentage of teachers with a master's degree almost doubled. Yet, despite these significant increases in inputs, there has been very little improvement in student performance.

This is why we must resist the urge to address the issue of equity in school funding -- which cries out for change-- without at the same time dealing with accountability. Adding significant new funds to the state's schools without ensuring how they will be spent is a good way to win the equity battle, but lose the school reform war.

Thus the timing is right to offer the teachers' unions a quid-pro-quo: If they accept output-based performance contracts, we'll shift school funding to the state's personal income tax. Opinion polls show strong public support for output-based performance contracts for teachers and administrators. By tying the funding shift to educator accountability, voters are more likely to agree to provide net new dollars for public education -- an increase of 10 percent would cover the costs for professional development and incentive pay -- rather than simply replacing real estate taxes with personal income taxes in revenue-neutral terms.

Conclusion

The floor on which Americans have been standing for the last two decades has been tilting, and people without real skills have been sliding to reduced wages levels. The angle of tilt in this floor will grow sharper with each passing year as global trade and technology advance. If we want to anchor our children and grandchildren to firm economic ground in the future, we'll have to provide them with lifelines fashioned of far higher skills and education than we've ever had to provide in the past.

The top fifth of American families have it very good indeed. But it is critical to understand that unless the schools work for all their students, the future will be very unlike the past. It is one thing to be well off in a middle-class society where there is no class hatred, where someone who has "made it" is greeted with admiration: "Good for you. But for a couple of breaks I'd be just where you are!" It is quite another thing to be well off in a Latin-American-type society where the gap between the haves and the have-nots is big and ugly, where there is real danger and social unrest, and where those who have made it are deeply resented precisely because everyone else knows the system was stacked against them from the outset.

To a very significant extent we are captives of the terms "suburbs" and "cities" -- labels that suggest a society where 80 percent are haves and 20 percent are have-nots. This familiar language creates a perception that distorts reality on school funding and school quality. Income data make clear that the ratios are reversed: 20 percent are the haves and 80 percent are increasingly the have nots, and the test data comparing our students to those in the rest of the developed world make clear that all American schools must make dramatic improvements.

The human capital development challenge facing our nation is not one among many -- rather it is the greatest challenge of all. Creating a future labor force that can compete successfully in the twenty-first century global economy is an intimidating task because key changes must occur in every component of the nation's human capital development system, not simply our K-12 schools, where standards-based school reform must serve as an indispensable foundation. In the 21st century, human capital will be the source of comparative advantage. These critical reforms in teaching, accountability, and funding will ensure that our children and grandchildren will be

able to compete effectively in a world far, far different from the one in which grew up. We can succeed provided that we admit the nature of the crisis, recognize that a generation's effort lies ahead, and get to work now. This determination will take us into the next millennium secure in the future of our economy, assured in the quality-of-life we will bequeath to our children, and confident in the capacity of our democracy to endure.

For copies of this piece, please contact cgpinfor@pobox.upenn.edu