

# LEAD THE CHANGE SERIES

## *Q&A with Marc Tucker*

*AERA is celebrating 100 years of educational scholarship in 2016 with the theme Public Scholarship to Educate Diverse Democracies. How does your scholarship contribute to public understanding of professional practice that improves education, and to related political debates in the context of increasingly diverse democracies?*

In the early part of the 20<sup>th</sup> century, the United States borrowed ideas from other nations extensively as it built a modern education system that eventually powered the world's leading economy. When the first TIMSS results came out in the mid-90s, the world learned that Asian nations largely led the world's league tables. It turned out that, according to their own testimony, much of what they had accomplished was based on what they learned from the West, especially the United States. But, it also turned out that the United States, resting on its laurels, had failed to adapt its education system to the demands of a radically changed global economy and was being outpaced not only by the Asian countries, but by a growing list of other countries as well. That

reality was brought home with a jolt by the results from the first OECD PISA survey. Subsequent results have described a continued fall from grace for the United States.

For 27 years, our organization, the National Center on Education and the Economy (NCEE), has been researching the strategies used by the top-performing nations worldwide. Our aim is to provide data and analysis that countries all over the world can use to improve the performance of their systems by standing on the shoulders of the countries with the best education systems.

"Standing on the shoulders" does not mean copying. The technique we use is usually referred to as industrial benchmarking, because of its origins in private industry. Back in the late 1970s and early 1980s, Japanese manufacturing companies challenged global manufacturers based in the United States, put many of them out of business and reduced others to marketing fronts for the Japanese firms' products.

The American firms that survived and prospered were those that sent teams of

### EDUCATIONAL CHANGE SIG

The Educational Change SIG adopts an interdisciplinary and international approach to understanding many aspects of educational change, including large-scale reform, school-initiated change, school improvement, and classroom-level change.

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#### ABOUT THE SERIES

Lead the Change series, featuring renowned educational change experts from around the globe, serves to highlight promising research and practice, to offer expert insight on small- and large-scale educational change, and to spark collaboration within our SIG.

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**Deidre Le Fevre and Osnat Fellus**



engineers to Japan to see how the Japanese manufacturers were able to beat them. These visitors were not interested in copying anyone. They were interested in outperforming them.

To do that, they had to understand in detail the practices and policies of the firms they were trying to learn from. They would identify different practices in different firms in particular manufacturing disciplines, seeing how different leading Japanese firms went about their work. Their aim was to draw composite pictures of leading practices in each of those disciplines, so that drawing on different best practices (sometimes a composite across many firms, sometimes a description of the best practice in one or two patently superior firms) they could create a picture of a set of practices, which, when woven together, could beat the outcomes that any particular Japanese firm was getting.

Then they would add their own 'secret sauce,' things that none of the Japanese firms were doing but which they were convinced would produce a better outcome than the Japanese practices alone. Sometimes the changes they made to the Japanese strategies were required to adapt a superior Japanese system for use in the United States, given our laws, customs, values and practices.

Interestingly, when the Americans asked the Japanese engineers where the ideas they were using came from, the answer was the United States, mainly American quality gurus whose advice the Americans had been steadfastly ignoring for many years. What goes around comes around.

Much the same thing turned out to be true when we went to see how the Asian countries had managed to do so well on the international comparative tests. It turned out that the superior performance of the Asian countries on the TIMSS and PISA surveys was in part due to the disciplined practice of industrial benchmarking by the Asian countries in the West, especially the United States! You might

reasonably ask how these countries could outperform us by a wide margin by studying our policies and practices. The answer is that they were not studying our average policies and practices. They were studying what they called our "peaks of excellence." They were closely following our best researchers and using their research and they were visiting our most interesting schools and talking with our best educators.

And here is the most important part: They understood that they would look in vain in the United States for an effective education system. They were far better than we are at creating a system that can produce high average levels of achievement, with high levels of equity at a reasonable cost. Indeed, they knew, we had managed to create one of the most expensive school systems in the world, but one that was producing only mediocre results at scale, on average. So they came here to take our best ideas and then go back and carefully weave them into their highly coherent, very effective education systems, so that all their students, not just a few (as in the United States) could benefit from them.

There is not the space to do it here, but I would argue that most substantial education improvement in the world in the last century and even earlier has come about through the wholesale borrowing and adaptation of effective education system designs, including policies and systems, from other countries, from the Meiji Revolution in Japan onwards. This is not a new process. The problem in the United States over the last forty or fifty years is that our extraordinary success in public education over the preceding century has persuaded us that we have nothing of value to learn from others in this field. That error may prove to be fatal for our students, our economy and our society.

Given this perspective, the NCEE's mission as an organization is to both conduct and sponsor the best research we can on the

strategies used by the top performers, make the results of that research available all over the world in the most effective way we can for a wide range of policymakers and practitioners, and then, within the United States, offer the kind of policy development, technical assistance and training needed to help policy makers and educators build education systems in our states second to none in the world, using the results or our own research and the research of others.

*You are well known internationally for your work on international education benchmarking, on national skills standards, and your work in the National Center on Education and the Economy (NCEE). What do you see to be some important contributions of this work to the field of educational change?*

With all due respect, we are not interested in educational change. There is a great deal of change in education that makes no contribution to the sustained improvement of outcomes for students at scale and that is what we are interested in. Our analysis of the global economy suggests to us that, because of the rapid integration of labor markets worldwide over the last forty years, the outlook for workers in high wage countries who have only a 7<sup>th</sup> of 8<sup>th</sup> grade level of education is bleak now and will be bleaker in the years ahead. That means that high-wage nations like ours have two choices. We can provide to all our kids the kind and quality of education that heretofore we have provided only to an elite or we can watch wages slide down until they meet the rising wages in less developed countries coming up. So far, the United States has chosen the latter course.

Over the last quarter century, the NCEE has done two things: 1) created a series of Commissions composed of leading Americans from many walks of life to help set the American agenda, and 2) built new institutions, programs and initiatives to provide the institutional

capacity to implement the recommendations our commissions have made.

The NCEE's first commission was the Carnegie Task Force on Teaching As a Profession. The report of that commission, *A Nation Prepared: Teachers for the 21<sup>st</sup> Century*, was the first to suggest that the problem with American education was a problem with the design of the system and would require a systems solution. It was to suggest that the new system would have to be built on explicit standards, benchmarked to the highest in the world, also the first to say that that design, to be successful, would have to be built on a professional, not a blue collar, model of school organization. And it proposed that that process be started by creating a National Board of Professional Teaching Standards, which we then designed, staffed and got off the ground. Once it was set up, we spun it off.

In 1989, the NCEE created the Commission on the Skills of the American Workforce, and wrote its report, *America's Choice: high skills or low wages!*, which was released in 1990. That report was our first major education report to be based on the use of an international benchmarking research strategy. It made the case to the American people that if we failed to modernize our education system along the lines taken by the nations with the most successful education systems, we would end up paying low wages to our workers and face a rapidly declining future. It laid out a comprehensive set of policy proposals in the areas of both education and training.

Later, in a Rose Garden ceremony at which he signed his signature education and job training bills, President Clinton singled out our organization for providing the intellectual leadership on which his legislative program was based. Later, in the George H.W. Bush administration, another landmark piece of legislation, the Workforce investment Act, was passed by the Congress. It, too, was based on the recommendations made in our report. Following

the release of that report, we followed up on another recommendation in the report by creating New Standards, a consortium of 23 states dedicated to creating a common set of student performance standards for the consortium states, benchmarked to international standards, and a set of new performance examinations aligned to the standards.

It turned out that the country was not yet ready for national standards and examinations, but the work we did and the team we assembled provided a strong foundation on which the Common Core State Standards were later built.

Also in 1989, we created a program designed to help states and big cities build more effective systems based on what we were learning about systems change. Later, we refocused this program on schools and came up with a comprehensive school design based on what we were learning about effective schools worldwide. That program, under the name America's Choice School Design was declared in a massive study of the nation's school design programs to be the most effective of all of the comprehensive school design program offerings.

Ten years ago, we launched the National Center for School Leadership, now the largest trainer of school principals in the United States.

In 2006, we released the report of our second Commission on the Skills of the American Workforce, and we launched a new program of high school reform, also based on our global benchmarking research, in particular the use of board examination systems to drive instruction and the use of qualification systems to structure incentives for both students and teachers.

Three years ago we shifted gears. We had concluded that, although every intervention we had designed was judged by independent observers to be either best in class or among the best in class, none would enable our school districts or states to match the performance of

the best-performing nations. Even the most powerful interventions observed abroad, we realized, will not function in a largely dysfunctional system the way they did in their own system. So we have redesigned our whole organization to enable us to offer to states and large districts the full range of resources required to redesign not just their standards, or teacher education institutions or instructional systems or any single component of their system, but the whole system, over a period of many years.

Our National Institute for School Leadership will provide the training required to support these large systemic change programs. Another part of our organization will provide the consulting assistance. And our Center for International Education Benchmarking will provide the research base. In this way, all the research we have done and will do will be closely tied to the consulting we do, the instructional systems we develop, the technical assistance we render and the training we do.

*Given your focus on educational change, what would be some major lessons we can learn from local and global educational change?*

This question deserves a book, which I plan to write. So, because it is not done yet, I will simply share three observations with you.

First, the United States has by far the largest education research establishment in the world, but the performance of our education system is mediocre. I think the AERA needs to think hard about why this is true.

It might have something to do with another fact. Notwithstanding the enormous size of our education establishment, there is very close to no research on what I take to be the most important question for education research: What are the factors that account for the success

of the countries with the highest average student achievement and the greatest equity? Why do some education systems at the scale of states, provinces and nations produce much better results than others? We have vast numbers of researchers studying the most esoteric questions imaginable, but very close to none asking the most important question there is. Why? What can be done about it?

Second, the dramatic improvement of education performance at the scale of a nation, state or province is not just a matter of knowing what to do. It is also, or perhaps mainly, a question of political will. In the studies we have done of the most successful national education systems, one of the most striking findings is that a very high proportion of the countries with such systems are countries in which there is a strong consensus, driven by strong political leadership, that that nation wants to have broadly shared prosperity.

That is, the economic and political leaders do not want to compete with other nations on the cost of their products and services but on their quality. Once that decision is made, it is much easier to make the investments and the hard political choices needed to build highly effective education and training systems. In countries like the United States, where that decision has not been made, in which there is no consensus on this point, it is much, much harder.

Third, success is the father of success in national education reform and failure is the father of failure. In countries that have a record over decades of more or less steady progress in education, the public is willing to increase its investments in education and to trust its teachers. Rising investment and increasing trust attract ever more capable high school students into teaching, which improves the outcomes for students and the cycle continues.

On the other hand, in countries like the United States, in which student performance is not improving, the public tends not trust its teachers and is not so willing to invest in them, preferring instead

to punish teachers for their presumed incompetence. This drives good teachers out of the system and discourages capable high school graduates who might otherwise have chosen teaching from doing so, driving student performance down. This cycle, too, feeds on itself. In the United States, much depends on reversing this cycle.

*Young people (students) are the focus of educational change for improvement. From your perspective, what excites you in educational change? What are the key issues young people at this time and age cope with, what are their needs and what might the field of educational change prioritize in order to meet these needs?*

So what do students need? I know very bright college students who have decided not to have children because they cannot imagine bringing kids into a world in which a leader of a major nation has said he would be up for using tactical nuclear weapons if he is frustrated in his efforts to take over neighboring states. Or a world in which nuclear weapons may well fall into the hands of religious fanatics who welcome their own death as long as they can take a lot of other people with them. Or a world in which hundreds of millions of people living along the world's ocean edges will do whatever is necessary to find food and shelter for themselves and their children as the oceans rise. Or a world in which agriculture collapses in many countries because there is either too much or too little water. Or a world in which war is being waged by people with joysticks who lose control over their weapons as the weapons themselves decide what their objectives are and how they plan to achieve them. Or a world in which scientists are designing the genes that will be used to create a super-race of soldiers.

Not to mention the challenge of growing up in a world in which automated equipment is developing the ability to replace humans at a swiftly increasing rate in an ever-growing range



of occupations at all skill levels, often leaving the humans whose jobs they take unable to earn a living and feed their families. I list these challenges to suggest that the human community has now reached a point at which our collective survival will require a kind and level of education we have never provided before.

It is hard to imagine how humans or the planet we live on will survive unless we can develop not only the technical knowledge required, but also the social skills, empathy, knowledge of history and politics and moral fibre that will be vital.

What do students need to make this happen? They need the cognitive skills, the emotional resources, the social skills, the ethical foundation and the will to survive and prosper in such a world, not just as individuals looking out for themselves, but as strong contributors to the kind of community and society that we all want. That is what our students need.

That is actually a staggering requirement, but that is how I see it. It is far more than our schools are doing now. But it is what needs to be done. Not just in a few schools for the people who will provide the political leadership, run our scientific laboratories, offer professional advice and services and manage our largest organizations. No. I am talking about everyone.

That means that what I just wrote is intended not as a prescription for our elites but for everyone and that means for our mass education system. That is why I think the most urgent question is how we rebuild our education system. It is not how we teach reading, how we finance our schools, how children learn mathematics, what forms racial discrimination is now taking in our urban schools. It is all these things and none of them.

The question of questions is the one question no one wants to address: how to build effective education SYSTEMS. Once that question

becomes the queen bee around which all other questions revolve, then all these other questions must be addressed.

But, if we do not set very ambitious goals for our kids of the kind I just described and until we commit ourselves to rebuilding the system to accomplish those goals, the rest is fruitless. Why?

Because the best answers to those other questions simply won't produce very strong results in a dysfunctional system, and a dysfunctional system is what we have.

If you do not think that the prospect of taking these issues on is exciting, then nothing will excite you.



Marc S. Tucker is the President and Chief Executive Officer of the National Center on Education and the Economy. He is an internationally recognized expert on academic and occupational standards and assessment, and has also been among the leaders in researching the policies and practices of the countries with the best education systems in the world. Tucker served in the '70's as the Associate Director of the National Institute of Education, in charge of the nation's government-funded research on education policy. He then created the Carnegie Forum on Education and the Economy at Carnegie Corporation of New York, and authored its report, *A Nation Prepared: Teachers for the 21<sup>st</sup> Century*. He led the Carnegie Forum team as it created the National Board for Professional Teaching Standards and served as the Board's first president. Tucker then founded the National Center on Education and the Economy and, in that role, created the Commission on the Skills of the American Workforce, the New Commission on the Skills of the American Workforce, the New Standards Consortium, America's Choice (a comprehensive school reform program), the National Institute for School Leadership and Excellence for All (a high school reform program). Cited by President Clinton as a major intellectual contributor to Clinton Administration education and labor policies, he was appointed by the President to the National Skills Standards Board. He has also served as author, co-author or editor of many articles and several books and reports, including, *America's Choice*; *high skills or low wages!*, *Standards for Our Schools: How to Set Them, Measure Them and Reach Them*; *Thinking for a Living: Education and the Wealth of Nations*; *The Principal Challenge*; *Tough Choices or Tough Times*, *Strong Performers and Successful Reformers in Education: Lessons from PISA for the United States*, and *Surpassing Shanghai: An Agenda for American Education Built on the World's Leading Systems*. Mr. Tucker has testified frequently to the U.S. Congress and state legislatures and is the recipient of the 2014 ECS James Bryant Conant Award.