Leaders in government, business and education actually seem to agree on one thing: America’s students are not learning enough math, engineering, technology and science to ensure our nation’s future competitiveness in computing, health, design, advanced manufacturing and hundreds of other evolving fields. Unfortunately, too many of America’s families seem to have missed the memo.

It is a classic “urgency gap.” When leaders and citizens – in this case it is parents and students – seem to be operating on entirely different wavelengths, there is little opportunity for real progress to take root.

Public Agenda first took an in-depth look at attitudes toward math and science education with its 2006 Reality Check report “Are American Parents and Students Ready for More Math and Science?” The study concluded that, while parents support proposals to make high schools more globally competitive in general, most (57%) also say the amount of science and math their child studies now is about right. In fact, parents' concern about math and science achievement has actually declined since the mid 1990s. In 1994, 48% of parents thought their children were not getting enough math and science, compared to only 32% of parents thinking the same in 2005.

Widely-discussed in policy circles and in stories on CNN.com, Education Week, the Associated Press and prominent newspapers across the nation, the Reality Check research generated a lot of soul-searching among business, education and foundation leaders who are dedicating resources to improving math, engineering, technology and science education. As a result, a number of key organization have joined with Public Agenda to take a closer look at how parents and students in their communities are thinking about math, science and technology education.

---

Math, Science and Technology Education

Is America In the Race?

Kauffman, GE, and IBM Launch New Public Agenda Projects

“The challenge ahead of us is to more fully inform and engage parents and students as full partners.”

Dennis Cheek
Ewing Marion Kauffman Foundation

---

Principals of Change

Wallace Foundation Focuses on Leadership in High Needs Schools

Public Agenda and The Wallace Foundation have set their sights on understanding the best ways to recruit top-notch leaders to our nation’s high needs schools. The two organizations are working in partnership to talk with principals and superintendents across the country and learn from their experiences.

Previous research from Wallace has demonstrated the connection between highly effective school leadership and student success; and, Public Agenda worked with Wallace to examine the views of school leaders nationwide in Reality Check. The new initiative builds on this groundwork, exploring what skills a leader needs to be effective in those schools with high poverty and a history of low achievement. The research also takes a look at how we can attract, retain and support these leaders.

Preliminary results from “A Mission of the Heart: What Does It Take to Transform a School?” were discussed at Wallace’s day-long conference, Education Leadership: A Bridge to School Reform in New York City in October 2007. Based on focus groups and one-on-one in-depth interviews with on-the-job superintendents and principals, the report offers a detailed, sometimes inspiring
initiative to improve science, math and technology education in the Kansas City area in 2005, and when its leaders read about the Reality Check findings, they began to wonder how they could better engage families. They realized that even if Kauffman could dramatically improve the math, science and technology curriculum, ramp up teacher skills, and improve supplies and remedial programs, the initiative wouldn’t have the full effect if most students still weren’t motivated to take the classes. Kauffman asked Public Agenda to join their initiative, exploring parent and student attitudes in Kansas and Missouri and designing a comprehensive public engagement program.

When the new research, “Important, But Not for Me: Parents and Students in Kansas and Missouri Talk About Math, Science and Technology” was released in September, it made news in Kansas City and nationwide. According to the study, just 25 percent of Kansas/Missouri parents think their children should be studying more math and science; 70 percent think things “are fine as they are now.” The report also explains why parents and students are so complacent in this area and what kinds of changes might be helpful in building more interest in and support for more challenging math and science courses.

While 86 percent of parents agree that “students with advanced math and science skills will have a big advantage when it comes to work and college opportunities,” when it comes to ordering their family priorities, MST education loosens out. Only 23 percent of parents and 26 percent of students believe it is essential to understand higher level math like calculus and only 23 percent of parents and 24 percent of students say it is essential to understand advanced sciences like physics.

“What we saw in Kansas and Missouri is very consistent with what we have seen nationwide,” said Education Insights’ Director Jean Johnson. “Right now, most parents and students are just on a different wavelength on this issue, and this presents two potential problems. One is that parents, students and local communities may be complacent about or even resistant to efforts to strengthen math and science education. The second is young people and their parents miss out on the vast and interesting opportunities available to students with strong math/science backgrounds. They just may not have absorbed how much the economy and future jobs are changing.”

Public Agenda has also created a public engagement toolkit with a video discussion starter and guides for organizers, facilitators and participants. The toolkit is the centerpiece for community forums that are taking place over the next three years. All the material and survey results are online at PublicAgenda.org and more information about the initiative is available at [www.kauffman.org/education.cfm](http://www.kauffman.org/education.cfm).

Erie and Atlanta Close Behind

Education Insights is also working with the GE Foundation to explore parents’ views on math and science education in two GE communities – Atlanta and Erie, Pennsylvania. The project includes community surveys that will be released later this year, but early focus groups results reflect much of what

Attracting More Hispanic Students to Math and Science

IBM is also stepping forward as another key partner in Education Insights’ work in this area, this time with a project focusing on increasing the number of Hispanic students pursuing science, math and technology careers. As part of America's Competitiveness: Hispanics
in Technology Careers, a May 2008 conference hosted by IBM, Education Insights will synthesize its existing survey work on education among Hispanic parents and students and interview leading Hispanic scientists and corporate, government, media and community leaders to assist in the conference planning. For further information contact The IBM Foundation, Corporate Citizenship & Corporate Affairs (dorisgl@us.ibm.com).

(“Principals of Change” continued from page 1)

look at their daily lives and challenges. In many respects, the interviews are a testament to how much being a school leader has changed. Not so long ago, the role was mainly an administrative and managerial one, but for this group at least, the job is now action-oriented and entrepreneurial. As one leader told us: “It’s not just going in there and managing it all. It’s ‘where can we take it?’”

“For every ten new jobs, eight of them will be in healthcare, life sciences or related areas of study -- and that’s the area that math and science clearly makes up.”

Bernard Franklin, President
Penn Valley Community College, Kansas City, Missouri

Double Bind

College Less Affordable and More Essential, Public Says

New research from Public Agenda and The National Center for Public Policy and Higher Education identified a growing anxiety among Americans: Higher education is perceived to be increasingly essential for success at the same time that is becoming harder and harder to afford. The findings are detailed in “Squeeze Play: How Parents and the Public Look at Higher Education Today,” a report on longitudinal survey research tracking public attitudes toward higher education since 1993.

The Chronicle of Higher Education reported, “Half of the respondents said they viewed college as necessary for achieving success. That is up from 31 percent who said so in a similar poll the research groups conducted in 2000. The new survey found that people were generally positive toward higher education, with about two-thirds of respondents saying that colleges teach students what they need to know. But the public is voicing more skepticism about colleges and their operations, especially as their prices rise.”

“Is America’s love affair with college on the rocks?” was the headline of an editorial by Public Agenda’s Andrew Yarrow based on the findings and appearing in newspapers across the nation, including The Baltimore Sun, The Philadelphia Inquirer, The Newark Star-Ledger and dozens of others. “Although Americans still give colleges generally high marks for quality, higher education is increasingly perceived less as a noble purveyor of knowledge and skills than as a ‘business,’” Yarrow asserted.

Public Agenda and the National Center are continuing the project by conducting additional interviews with college leadership. A new supplemental report with additional findings is slated for release at a later date.
LESSONS LEARNED

Are First-Year Teachers Really Ready to Teach?

Every August, new teachers across the country take charge of their own classrooms for the first time, anxious and excited to meet their first batch of eager learners. But just how ready are these new teachers to educate our nation’s students, and are we doing everything we can to support them when they’re newbies?

“Lessons Learned: New Teachers Talk About Their Jobs, Challenges and Long-Term Plans,” a joint project of the National Comprehensive Center for Teacher Quality and Public Agenda, is a national survey of first-year teachers that aims to help leaders in education and government understand more about the quality of current teacher education and on-the-job support and mentoring.

“Issue No. 1: The Special Challenges of New Teachers in High Schools,” released in October, provides ample evidence that new secondary school teachers, challenged by their teen-aged students, are much more concerned about administrative support, more frustrated by student motivation and behavior, less likely to see teaching as a lifelong career choice and less likely to believe that all students can achieve in school than new teachers in elementary schools. The full report and questionnaire are available at PublicAgenda.org.

According to the survey, compared to new elementary school teachers, new high school and middle school teachers are:

- Less likely to say that teaching is exactly what they want to be doing
- More likely to report frustrations with student motivation and behavior
- More likely to be concerned about lack of administrative support in their schools
- Less likely to believe that good teachers can lead all students to learn
- Less likely to say they regard teaching as a long-term career choice
- More likely to say that their preparation was too theoretical and did not focus enough on practical classroom issues

The results are being released as a 3-part series that will include reports on new teachers entering the profession through alternative routes and how new teachers rate the training they received prior to having their own classrooms. The results of Issue No. 1 were discussed in a national webcast presented by Public Agenda’s Director of Research John Doble and Research Manager Jon Rochkind in October.

The total of the research findings were the subject of several presentations at the “What Works Conference: Advancing Student Achievement Through Effective Teaching and Leadership” in Washington, DC November 5-7.

The next issue of “Lessons Learned” will focus on the experiences of teachers who take alternative routes to teaching and the third issue will look more closely at teacher preparation and the teachers’ sense that they need help on in handling diverse classrooms and working with special needs and gifted students.

REL Midwest, part of a federally funded network of 10 regional educational laboratories, was instrumental in the design and review of the survey.
There haven’t been any Norma Rae moments, but Public Agenda folks have definitely been speaking out to leaders and citizens around the country.

In September, Public Agenda President Ruth Wooden gave a presentation to the American Association for the Advancement of Science’s conference in Arkansas, Rising Above the Gathering Storm: Energizing and Employing Arkansans for a Brighter Economic Future. “As we all know, without drive, one doesn’t compete – without drive, you never even make it into the starting blocks,” she told the group. “On math and science education, there is very little drive among the real consumers of education – parents and students across the nation – to change the situation as it exists. And if the United States is to ‘rise above the gathering storm’ and build the talent pool our economy will require, this is a serious challenge that cannot be overlooked.”

She also spoke about the leader/family gap on math, science and technology education to the Carnegie-IAS Commission on Mathematics and Science Education in November at the American Museum of Natural History. Wooden’s talk focused on the issues of urgency, personal relevance and vision of the future that need to be addressed with parents and students.

Jean Johnson and Public Agenda Senior Fellow John Immerwahr have made presentations on new research from “Squeeze Play” (see “Double Bind,” Page 3). Johnson spoke at the The National Center for Public Policy and Higher Education/Lumina Foundation conference Making Opportunity Affordable in Washington, DC in May. Immerwahr detailed the research to the National Center for Public Policy and Higher Education’s Associates Meeting in Santa Fe, New Mexico, and then to the National Conference of State Legislatures in Denver in a presentation called “The Big Ten: Ten Themes in Public Opinion Research on Higher Education.”

Jean Johnson also appeared with Linda Skira, co-author of “Leadership for Equity and Excellence,” in March at the Urban Educators Forum on “The Achievement Gap: Gender, Race and Class.” The Forum was part of a series of workshops organized by New York City’s United Federation of Teachers. Johnson also appeared at The Dana Foundation’s Conference “Transforming Arts Teaching: The Role of Higher Education” on a panel with Michael Cohen from Achieve, Derek Gordon of the Arts Council of Greater Baton Rouge, and Pedro Noguera of the Steinhardt School of Education.

Johnson also spoke with members of the Communications Executives Group of National Education Organizations in Washington, D.C., in September. The meeting was organized by the Institute for Educational Leadership and hosted at the National Education Association’s Washington offices.

On Wednesday, October 31 in Washington, DC, Public Agenda Senior Advisor and former President Deborah Wadsworth led a set of panel discussions on disorder and disrespect in public schools today. Organized by the public policy organization Common Good, the day-long conference at the Carnegie Endowment for International Peace also featured keynote speaker and United Federation of Teachers President Randi Weingarten. Other key panelists include Andrew Rotherham, William Damon, David Osher, Eric Hirsch, Richard Arum, Peter Schuck and Chester Finn. More information is available at: http://cgood.org/schools-events-76.html

In November, Research Manager Jonathan Rochkind addressed business leaders, policymakers and practitioners about Public Agenda’s research on how parents, students, teachers and administrators view math, science and technology education at the 2007 CELL (Center for Excellence in Leadership and Learning) conference “Indiana’s Future: Equity, Engagement and Education for Economic Success—Transforming Today’s Schools for Tomorrow’s World.”
Achieving the Dream

Number of Community Colleges Participating in Initiative up to 82

Achieving the Dream: Community Colleges Count is a multiyear national initiative to help more community college students succeed. The initiative is particularly concerned with student groups that traditionally have faced significant barriers to success, including students of color and low-income students. Achieving the Dream works on multiple fronts, using research, public engagement and public policy change. It emphasizes the use of data to drive change.

Eighty-two community colleges in 15 states participate in the initiative. Since 2005, Public Agenda has been providing its expertise in the area of community and stakeholder engagement. Public Agenda completed a successful community engagement pilot program across selected colleges in Florida, Texas, Connecticut and Ohio. Over the next sixteen months, Public Agenda will implement two new pilot projects at selected colleges in New Mexico, Texas, Ohio and Connecticut.

Working in partnership with North Carolina-based MDC, one pilot is designed to augment community conversation and engagement work with the creation of campus/community leadership teams brought together to discuss challenges and take action on student success issues. The second pilot is focused on finding new and effective ways to engage students and faculty in the implementation of Achieving the Dream goals and intervention strategies on campus.

As one community conversation organizer told Public Agenda, “There’s tremendous transformative potential in bringing the community in and making it possible for that kind of dialogue to take place. Bringing the community in can make all the difference in the world, especially if you think about and focus on deepening that involvement moving forward.”

An administrator at a participating community college said, “My advice to other colleges that might want to do this is that it is definitely worth the work it takes to pull the Community Conversation off. Leadership is energized, the community was left feeling enthusiastic, and we all feel like it was a great thing for the college and the community.”


“Bringing in the Community Can Make All the Difference in the World”

A trained moderator and recorder help a bilingual group keep track of and prioritize their suggestions on how to help more students succeed during a community conversation in San Antonio, Texas.