



# FROM THE **field**

A QUICK GLIMPSE AT RECENT RESEARCH AND RESOURCES

## **PRIORITIZING MATH AND SCIENCE**

**"The opportunity equation: Transforming mathematics and science education for citizenship and the global economy"**

*Carnegie Corporation of New York*

Based on the belief that every student in every school deserves an excellent science and math education to be prepared for the future, this call to action outlines

four priority areas for moving math and science to a more prominent place in the educational system. The authors advise establishing high expectations for student achievement in these fields, both within schools and

districts and at a national level. Recommendations also include strengthening professional learning in these subjects. Specific strategies include increasing teachers' opportunities to experience powerful math and science learning themselves and partnerships with science institutions.

[www.opportunityequation.org/TheOpportunityEquationExecSum.pdf](http://www.opportunityequation.org/TheOpportunityEquationExecSum.pdf)



## **WHAT IS IT LIKE BEING A TEACHER?**

**"Teaching for a living: How teachers see the profession today"**

*Public Agenda, September 2009*

This first in a series of three reports features nationwide survey data about how teachers describe their jobs, including their reasons for entering the field, what their students and teaching atmosphere are like, what challenges they face, and what suggestions they have for improvements. Three distinct groups of teachers are identified — the disheartened, the contented, and the idealists — and the categories are used to explore policy implications for supporting and retaining the most effective educators. Following up on earlier studies, this study also includes questions about differences between Gen Y teachers and older educators. [www.publicagenda.org/pages/teaching-for-a-living](http://www.publicagenda.org/pages/teaching-for-a-living)

## **EFFECTIVE LEADERSHIP**

**"Research findings to support effective educational policymaking: Evidence & action steps for state, district & local policymakers"**

*The Wallace Foundation, September 2009*

Using research findings and case studies, this brief report offers recommendations for reforming public education at the local, district, and state levels. Action plans emphasize the role of district leaders and principals in improving schools' performances, in addition to coordinating district and state policies and expanding out-of-school learning. Principals in particular are identified as key players in turning around low-performing schools. Investments in principals — support, training, timely and relevant data, and time to devote to improving instruction and learning — are found to be highly cost-effective and critical to attracting and keeping high-quality teachers.

[www.wallacefoundation.org/Documents/Research-Findings-Action-Items-to-Support-Effective-Educational-Policymaking.pdf](http://www.wallacefoundation.org/Documents/Research-Findings-Action-Items-to-Support-Effective-Educational-Policymaking.pdf)

**RETAINING NEW TEACHERS****"A teacher development continuum:  
The role of policy in creating a supportive  
pathway into the profession"***New Teacher Center, June 2009*

Given that research consistently shows a positive relationship between a teacher's number of years in the field and his or her students' achievement levels, how can new teachers best be supported to become more effective more quickly? This policy brief explores ways to assist new educators through ongoing, on-the-job support throughout the induction period and beyond. As many new teachers are employed in urban and challenging schools, developing their knowledge and skills — and retaining them — has clear implications for their students' and schools' success. The brief identifies promising models of higher education partnerships and state policies and ends with several specific recommendations for states and higher education institutions.

[www.teachersforanewera.org/act\\_sendfile.cfm?fileid=89](http://www.teachersforanewera.org/act_sendfile.cfm?fileid=89)

**STAFFING INNOVATIONS****"Toward the structural transformation of schools:  
Innovations in staffing"***Learning Point Associates, August 2009*

A structural transformation of education must start with a reassessment of the ways in which teachers are trained, recruited, inducted, and supported. As schools explore and rethink teachers' roles and job descriptions, they must have flexibility to innovate. A differentiated staffing model would move teachers away from being generalists toward more specialized roles, with individual teachers focusing on particular aspects of a student's education and working with a team of colleagues to meet defined, assessable objectives. In addition, this model recognizes that teachers travel on a career continuum even when they choose to remain in the classroom.

[www.learningpt.org/expertise/educatorquality/resources/publications/InnovationsInStaffing.pdf](http://www.learningpt.org/expertise/educatorquality/resources/publications/InnovationsInStaffing.pdf)

**IMPROVING INSTRUCTION WITH DATA****"Using student achievement data to support instructional  
decision making"***What Works Clearinghouse, Institute of Education Sciences, U.S. Department of Education, September 2009*

This practice guide provides K-12 teachers, school administrators, and district leaders with a framework for applying assessment data to instructional decisions.



Because no single data source can provide a full picture, the guide emphasizes integrating multiple sources. By studying data from a variety of routine, consistent tests, educators can better monitor student progress and identify individual students' strengths and weaknesses, allowing them to prioritize their instructional time and methods accordingly. Five

recommendations address the use of data at the classroom, school, and district levels. The report acknowledges that a data-informed school and a district culture are necessary supports to effective data use.

[http://ies.ed.gov/ncee/wwc/pdf/practiceguides/dddm\\_pg\\_092909.pdf](http://ies.ed.gov/ncee/wwc/pdf/practiceguides/dddm_pg_092909.pdf)

**WHAT IS FORMATIVE  
ASSESSMENT?****"Today's middle level  
educator"***National Middle School Association*

Two 20-minute podcasts contain a two-part discussion about the culture and myths of formative assessment. A process used by teachers and students alike during regular daily instruction, formative assessment provides ongoing feedback to improve student learning and teacher instruction. It places students, rather than teachers, at the center, helping them to become engaged in their learning and using a constant flow of information to assess student understanding and revise processes as needed.

[www.nmsa.org/Publications/TodaysMiddleLevelEducator/tabid/1409/Default.aspx?name=formative](http://www.nmsa.org/Publications/TodaysMiddleLevelEducator/tabid/1409/Default.aspx?name=formative)

**EXTREME MAKEOVER:  
SCHOOLS EDITION****"Teachers at work:  
Improving teacher quality  
through school design"***Education Sector Reports, October 2009*

A pilot school in Brooklyn is using a new organizational design that grants teachers more time to plan instruction and collaborate, at no higher cost to the school and with demonstrated results for students. The Generation Schools model operates on the belief that improving teacher recruitment and raising performance expectations must be accompanied by a transformation in the job structure itself. By giving teachers more time to prepare lessons, review results, and consult with colleagues, the model provides a design and principles that could be adopted by other schools to improve teaching and learning success.

[www.educationsector.org/research/research\\_show.htm?doc\\_id=1058462](http://www.educationsector.org/research/research_show.htm?doc_id=1058462)