

Massachusetts

From Cradle To Career

Connecting American
Education From Birth
Through Adulthood

A Special State-Focused
Supplement to
Education Week's

**QUALITY
COUNTS
2007**

With Support From
**THE PEW CENTER
ON THE STATES**



About this Report

For the past decade, Editorial Projects in Education’s annual *Quality Counts* report has tracked state policies for improving K-12 education. But children’s chances for success don’t just rest on what happens from kindergarten through high school. They are also shaped by experiences during the preschool years and opportunities for continued education and training beyond high school. Yet the historical splits between different levels of education in the United States have made coordination difficult, with early-childhood education, elementary and secondary schooling, and postsecondary and training institutions often operating in separate silos, with different rules, different financial structures, different accountability systems, and different expectations for success.

As always, *Quality Counts 2007* examines the state of state educational policymaking using a unique combination of original state data and in-depth journalism, to which we have added commentaries by leading experts in the field. But this 11th edition – *From Cradle to Career: Connecting American Education From Birth Through Adulthood* – begins to track state efforts to create a more seamless education system by looking at performance across the various sectors, and at state attempts to define students’ “readiness” to succeed from one stage to the next.

The new Chance-for-Success Index, developed for the report by the Editorial Projects in Education Research Center, provides a state-focused perspective on the importance of education throughout a person’s lifetime. The index is based on 13 indicators that highlight whether young children get off to a good start, succeed in elementary and secondary school, and hit crucial educational and economic benchmarks as adults.

This year’s report is very much a transitional document as we move from an exclusive focus on K-12 education to a broader perspective on the connections between K-12 education and other systems with which it intersects. As we make that transition, we are taking the opportunity to rethink our K-12 indicators. While this year’s report continues to track state policy in the area of standards, assessments, and accountability systems, it does not include indicators on school climate, efforts to improve teacher quality, or school finance, as it has in past years. However, this year’s report introduces a new K-12 Achievement Index that evaluates states based on their levels of performance and improvements over time.

The *State Highlights Reports* assemble important findings in an accessible format that allows readers to examine a particular state’s performance on this year’s indicators. For most indicators, national results are also provided as a benchmark against which state performance can be gauged.

Quality Counts and the *State Highlights Reports* are produced with support from the Pew Center on the States.

Editorial Projects in Education

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About Editorial Projects in Education

Editorial Projects in Education (EPE) is a nonprofit, tax-exempt organization based in Bethesda, Md. Our primary mission is to help raise the level of awareness and understanding among professionals and the public of important issues in American education. We cover local, state, national, and international news and issues from preschool through the 12th grade. Editorial Projects in Education Inc. publishes *Education Week*, America’s newspaper of record for precollegiate education, *Teacher Magazine*, edweek.org, and the Agent K-12 employment resource. We also produce periodic special reports on issues ranging from technology to textbooks, as well as books of special interest to educators.

The **EPE Research Center** conducts annual policy surveys, collects data, and performs analyses that appear in the *Quality Counts*, *Technology Counts*, and *Diplomas Count* annual reports. The center also produces independent research reports and contributes original data and analysis to special coverage in *Education Week*, *Teacher Magazine*, and edweek.org.

Chances for Success

Chance-for-Success Index

To better understand the part that education plays over a lifetime, the Editorial Projects in Education Research Center has developed the Chance-for-Success Index. Based on an original state-by-state analysis, this index combines information from 13 indicators that span an individual's life from cradle to career. The Chance-for-Success framework allows states to identify strong and weak links in its residents' educational life course – their typical trajectory from childhood through adulthood. More importantly, the index also provides information that could be used to target the efforts of public education systems in ways that better serve students of all ages.

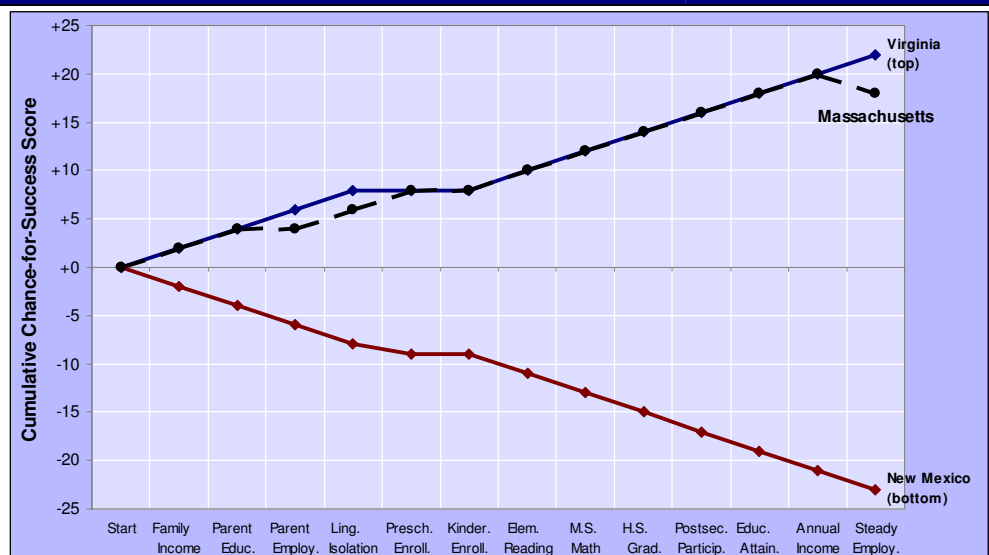
Success Indicators

	Massachusetts		National
	State Average	Points Awarded	Average
Family income – Children from families with incomes at least 200% of poverty level	73.4%	+2	59.8%
Parent education – Children with at least one parent with a postsecondary degree	56.9%	+2	42.5%
Parental employment – Children with at least one parent working full time, year-round	71.3%	0	70.6%
Linguistic integration – Children whose parents are fluent English speakers	85.5%	+2	84.3%
Preschool enrollment – Three- and 4-year-olds enrolled in preschool	53.9%	+2	44.8%
Kindergarten enrollment – Eligible children enrolled in kindergarten programs	73.3%	0	75.3%
Elementary reading – Fourth grade public school students proficient on NAEP	43.7%	+2	29.8%
Middle school mathematics – Eighth grade public school students proficient on NAEP	43.3%	+2	28.5%
High school graduation – Public high school students who graduate with a diploma	72.1%	+2	69.6%
Postsecondary participation – Young adults enrolled in postsecondary or with a degree	57.8%	+2	47.8%
Adult educational attainment – Adults with a two- or four-year postsecondary degree	48.4%	+2	37.4%
Annual income – Adults with incomes at or above national median	59.9%	+2	50.0%
Steady employment – Adults in labor force working full time and year-round	65.7%	-2	67.2%
State score:		+18	
State rank:		5	

Divergent Paths

States gain or lose points on each Chance-for-Success indicator based on how they perform compared with the national average. Putting that picture together across each of the 13 indicators reveals a state's educational trajectory from childhood through adulthood.

Where a person lives matters. A child born in Virginia (the top-ranked state) has a better-than-average chance for success at every stage, while a child from New Mexico (the bottom-ranked state) is likely to face a series of hurdles throughout life. Other states fall somewhere between those extremes.



Aligning Education from Cradle to Career

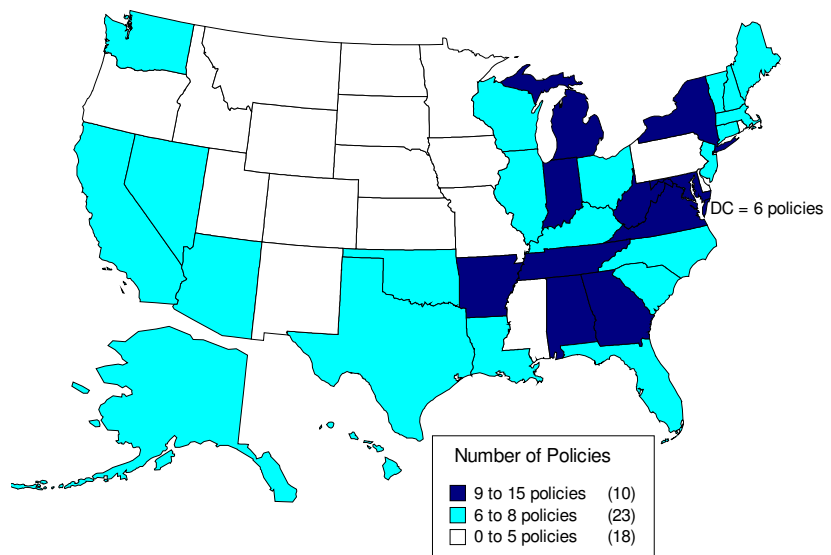
Education Alignment Policies

	Massachusetts	Nation
Early-Childhood Education		
Early learning – State early-learning standards aligned with K-12 standards (2006-07)	Yes	42 states
School-readiness definition – State formally defines school readiness (2006-07)	No	13 states
School-readiness assessment – Readiness of entering students assessed (2006-07)	No	16 states
School-readiness intervention – Programs for students not deemed ready (2006-07)	No	18 states
Kindergarten standards – Learning expectations aligned with elementary (2006-07)	Yes	45 states
Postsecondary Education		
College readiness – State defines college readiness (2006-07)	No	11 states
College preparation – College prep required to earn a high school diploma (2006-07)	No	9 states
Course alignment – Credits for H.S. diploma aligned with postsecondary system (2006-07)	No	5 states
Assessment alignment – H.S. assessment aligned with postsecondary system (2006-07)	No	6 states
Postsecondary decisions – H.S. assessment used for postsecondary decisions (2006-07)	Yes	9 states
Economy and Workforce		
Work readiness – State K-12 system defines work readiness (2006-07)	Yes	21 states
Work-ready distinction – Work-ready definition differs from college readiness (2006-07)	Yes	19 states
Career-tech diploma – State offers H.S. diploma with career specialization (2006-07)	Yes	35 states
Industry certification – K-12 has path for industry-recognized certificate or license (2006-07)	Yes	38 states
Portable credits – K-12 pathway to earn career-tech. credits for postsecondary (2006-07)	Yes	38 states
Number of policies:		8
State rank:		11

A National Perspective

The EPE Research Center has examined state efforts to connect the K-12 education system with early learning, higher education, and the world of work. Fifteen key policies are considered in this highlights report.

The states with the strongest alignment policies – Maryland, Michigan, and West Virginia – each have 12 of the 15 focal policies in place. At the other end of the spectrum, Colorado, Nebraska, and Pennsylvania have each enacted a single alignment policy.



Elementary and Secondary Performance

K-12 Achievement Index

Quality Counts' new State Achievement Index gauges the achievement of the public school system based on absolute levels of performance (status) and improvements or changes over time in nearly equal measure. The index is based on 15 individual indicators related to reading and math performance, high school graduation rates, and the results of Advanced Placement exams.

The EPE Research Center employed statistical tests to evaluate state performance on each indicator. States significantly exceeding the national average (for level indicators) or improving over time (change indicators) received a point, or 2 points if they excelled by a particularly large statistical margin. Conversely, low-performing states lost 1 or 2 points. A state's final score was calculated by tallying points across the set of 15 measures.

Achievement Indicators

	Massachusetts		National Average
	State Average	Points Awarded	
Achievement Levels			
4th grade math – Percent proficient on NAEP (2005)	48.8%	+2	35.3%
8th grade math – Percent proficient on NAEP (2005)	43.3%	+2	28.5%
4th grade reading – Percent proficient on NAEP (2005)	43.7%	+2	29.8%
8th grade reading – Percent proficient on NAEP (2005)	44.0%	+2	28.9%
Achievement Gains			
4th grade math – Scale score change on NAEP (2003-2005)	+5.7	+2	+3.1
8th grade math – Scale score change on NAEP (2003-2005)	+5.0	+2	+1.4
4th grade reading – Scale score change on NAEP (2003-2005)	+3.7	+1	+0.8
8th grade reading – Scale score change on NAEP (2003-2005)	+0.8	0	-0.9
Poverty Gap (National School Lunch Program, noneligible vs. eligible)			
Size of gap – 8th grade math scale score (2005)	26.0	0	26.7
Change in gap – 8th grade math (2003-2005), negative value = closing gap	-7.7	+1	-1.7
High School Graduation			
Graduation rate – Public schools (2003)	72.1%	+2	69.6%
Change in graduation rate – Public schools (2000-2003)	-3.5%	-2	+2.9%
Advanced Placement			
High AP test scores – Scores of 3 or above per 100 students (2005)	20.1	+2	15.7
Change in AP Scores – Change in high scores per 100 students (2000-2005)	+5.2	+2	+4.8
Bonus Indicator			
8th grade math excellence – Percent advanced on NAEP (2005)	11.4%	+2	5.6%
	State score:	+20	
	State rank:	1	

Standards, Assessments, and Accountability

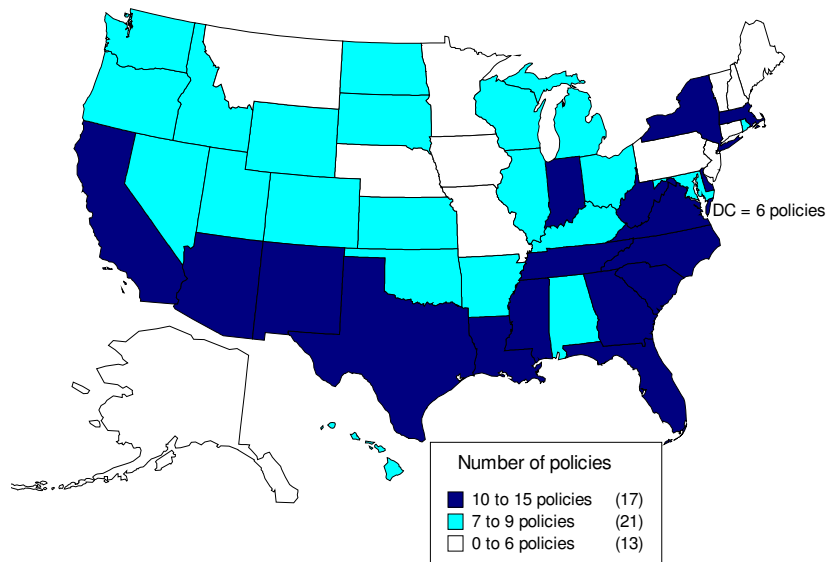
State K-12 Policy Indicators

	Massachusetts	Nation
Academic Standards		
English/language arts standards are clear, specific, and grounded in content at all levels (2006)	No	14 states
Mathematics standards are clear, specific, and grounded in content at all levels (2006)	Yes	41 states
Science standards are clear, specific, and grounded in content at all levels (2006)	Yes	46 states
Social Studies/history standards are clear, specific, and grounded in content at all levels (2006)	Yes	10 states
Revision schedule – State has regular timeline for revising standards (2006-07)	No	35 states
Assessments		
English/language arts assessments are aligned to standards at all levels (2006-07)	Yes	49 states
Mathematics assessments are aligned to standards at all levels (2006-07)	Yes	48 states
Science assessments are aligned to standards at all levels (2006-07)	Yes	25 states
Social studies/history assessments are aligned to standards at all levels (2006-07)	No	11 states
Vertically equated scores on assessments in grades 3–8 in English and math (2006-07)	No	21 states
School Accountability (policies must apply to Title I and non-Title I schools)		
State ratings – State assigns ratings to all schools on criteria other than AYP (2006-07)	Yes	29 states
Growth models – State ratings for schools measure individual student growth (2006-07)	No	9 states
Rewards – State provides rewards to high-performing or improving schools (2006-07)	Yes	17 states
Assistance – State provides assistance to low-performing schools (2006-07)	Yes	35 states
Sanctions – State sanctions low-performing schools (2006-07)	Yes	33 states
Number of policies:		10
State rank:		14

A National Perspective

The EPE Research Center has examined state policymaking activity in the areas of standards, assessments, and accountability. Fifteen key policies are considered in this highlights report.

The map shows that most of the states aggressively using these policies can be found in a swath that runs almost without interruption through the Southeast, South, and Southwest regions.



Notes and Sources

Quality Counts 2007

This year's 11th edition of *Quality Counts* investigates the ways in which state K-12 education systems connect with early-childhood education, postsecondary schooling, and the world of work. The report features the new Chance-for-Success Index, which provides a state-focused perspective on the importance of education through a person's lifetime. The annual State of the States update continues to track state policies in the areas of standards, assessments, and accountability. We also introduce a new K-12 Achievement Index that evaluates states based on their level of performance and improvements over time. *Quality Counts 2007* can be accessed online at www.edweek.org/go/qc07.

The *State Highlights Reports* provide state-specific summaries of key findings from *Quality Counts 2007*. Reports for the 50 states and the District of Columbia are available on the Web at www.edweek.org/go/qc07/shr.

Chance for Success

Family Income: Percent of dependent children (under 18 years of age) from families with incomes at last 200 percent of poverty level. EPE Research Center analysis of data from the U.S. Census Bureau's American Community Survey, 2005.

Parent Education: Percent of dependent children (under 18 years of age) with at least one parent with a two- or four-year postsecondary degree. Ibid.

Parental Employment: Percent of dependent children with at least one steadily employed parent, defined as working full time and year-round. Ibid.

Linguistic Integration: Percent of dependent children whose parents are native speakers of English or speak the language "very well." Ibid.

Preschool Enrollment: Percent of 3- and 4-year-olds who are attending preschool. Ibid.

Kindergarten Enrollment: Percent of eligible children attending kindergarten programs. The size of the entering kindergarten cohort is calculated based on the number of 5- and 6-year-olds in a state. Ibid.

Elementary Reading: Percent of 4th graders in public schools who score at or above the "proficient" level in reading on the 2005 National Assessment of Educational Progress (NAEP) State assessment. U.S. Department of Education, 2005.

Middle School Mathematics: Percent of 8th graders in public schools who score at or above the proficient level in mathematics on the 2005 State NAEP assessment. Ibid.

High School Graduation: Percent of public high school students who graduated on time with a standard diploma for the 2002-03 school year, calculated using the EPE Research Center's Cumulative Promotion Index. EPE Research Center, 2006.

Postsecondary Participation: Percent of adults (age 18 to 24) enrolled in a postsecondary education program or with a postsecondary credential. EPE Research Center analysis of data from the U.S. Census Bureau's American Community Survey, 2005.

Adult Educational Attainment: Percent of adults (25 to 64) with a postsecondary degree. Ibid.

Annual Income: Percent of adults (age 25 to 64) with annual income at or above the national median (\$34,350 in July 2005 dollars). Ibid.

Steady Employment: Percent of adults (age 25 to 64) employed on a steady basis, defined as working full time and year-round. Ibid.

Chance-for-Success Index: The Chance-for-Success score is calculated by tallying the points awarded for each of its 13 individual indicators. For each measure, states are compared with a national norm. If statistical analysis determines with 95 percent certainty that a state value is greater (or less) than the nation's, that state receives (or loses) 1 point. If that determination can be made with an even greater degree of statistical confidence (99.5 percent), 2 points are added or subtracted. EPE Research Center, 2007.

Alignment Policies

Early Learning Standards: State has early-learning standards for the 2006-07 school year that are aligned with K-12. EPE Research Center annual state policy survey, 2006.

School Readiness Definition: State has a formal definition of school readiness for the 2006-07 school year. Ibid.

School Readiness Assessment: State policy requires a school-readiness assessment for the 2006-07 school year. Ibid.

School Readiness Interventions: State provides students not meeting school readiness expectations with targeted services for the 2006-07 school year. Ibid.

Aligned Kindergarten Standards: State has kindergarten standards that are aligned with elementary and secondary standards for the 2006-07 school year. Ibid.

College Readiness: State has formal expectations for preparation needed for students to be admitted to the state's postsecondary institutions and enroll in credit-bearing courses. EPE Research Center annual state policy survey, 2006.

College Preparation: All students must take a course of study designed for students bound for four-year colleges to receive a standard diploma. Ibid.

Course Alignment: High school course-credits required for a diploma are aligned with the requirements for admission into the state's postsecondary institutions. Ibid.

Assessment Alignment: State has aligned the content of high school assessments with academic expectations of its colleges. Ibid.

Postsecondary Decisions: State uses high school assessment results for admissions, placement, or scholarship decisions in its postsecondary system. Ibid.

Work-Readiness Standards: K-12 system has formal expectations describing preparedness for the workplace. Ibid.

Career-Tech Diploma: Students have the option of earning a standard high school diploma with concentration in a career-technical field. Ibid.

Industry Certification: K-12 system has a career-technical pathway that leads to an industry-recognized certificate or license. Ibid.

Portable Credits: High school students can earn career-technical credits that can be transferred to the state's postsecondary system. Ibid.

K-12 Achievement

NAEP Mathematics 2005 (4th and 8th grades): Percent of public school students who score at or above the proficient level in mathematics on the 2005 State NAEP assessment. U.S. Department of Education, 2005.

NAEP Reading 2005 (4th and 8th grades): Percent of public school students who score at or above the proficient level in reading on the 2005 State NAEP assessment. Ibid.

NAEP Mathematics Change 2003-2005 (4th and 8th grades): Change in NAEP scale scores

Massachusetts – State Highlights 2007

for public school students between 2003 and 2005. Ibid.

NAEP Reading Change 2003-2005 (4th and 8th grades): Change in NAEP scale scores for public school students between 2003 and 2005. Ibid.

Poverty Gap for 8th grade math: Scale score difference in NAEP achievement between public school students eligible and non eligible for the National School Lunch Program. Positive values indicate higher performance for non eligible students. Ibid.

Poverty Gap Change for 8th grade math: Change in the size of the poverty gap for public school students between 2003 and 2005. Ibid.

High School Graduation Rate: Percent of public high school students who graduated on time with a standard diploma for the 2002-03 school year. EPE Research Center, 2006.

Change in Graduation Rate: Change in public school graduation rate between 2000 and 2003. Ibid.

High AP Test Scores: Number of high AP test scores (3 or above) per 100 students in grades 11 and 12. Analysis is specific to public school students. EPE Research Center analysis of data from the College Board's AP Summary Reports and the U.S. Department of

Education's Common Core of Data, 2005.

Change in High AP Scores: Change in the ratio of high AP scores for public school students between 2000 and 2005. Ibid.

8th Grade Math Excellence: Percent of public school students scoring at the advanced level on the 2005 State NAEP assessment. U.S. Department of Education, 2005.

Standards, Assessments, and Accountability

Academic Standards: State has standards that are clear, specific, and grounded in content (2006). Results are reported by level and academic subject area. American Federation of Teachers, "Smart Testing: Let's Get It Right," and unpublished reviews, 2006.

Revision Schedule: State has a regular timeline for revising standards (2006-07). EPE Research Center annual state policy survey, 2006.

Assessments: Subjects in which state uses assessments aligned to state standards (2006-07): Ibid.

Vertically Equated Assessments: State tests in English/language arts and Math have been

vertically equated in grades 3–8 (2006-07) so that scores for all grade levels have been placed on a common metric. Ibid.

State Ratings: State assigns ratings to all schools based on criteria other than adequate yearly progress (2006-07). Ibid.

Growth Models: State uses measures of individual student growth to evaluate schools for state rating system (2006-07). Ibid.

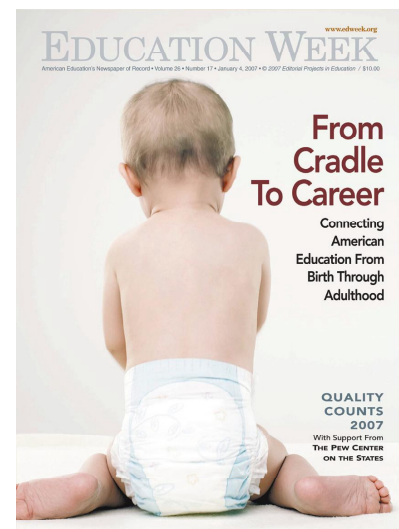
Rewards: State provides rewards to high-performing or improving schools (2006-07). Ibid.

Assistance: State provides funding or technical assistance to failing or low-performing schools, based on school ratings (2006-07). Ibid.

Sanctions: State is authorized to apply sanctions to low-performing schools under state law (2006-07). Credit is only given for statewide policies that are not limited to Title I schools. Ibid. ■

From Cradle to Career: Connecting American Education from Birth through Adulthood

- **Quality Counts 2007** – This year's full report investigates the ways in which state K-12 education systems connect with early-childhood education, postsecondary schooling, and the world of work. *Quality Counts 2007* features the new Chance-for-Success Index, which provides a state-focused perspective on the importance of education through a person's lifetime. The annual State of the States update continues to track state policies in the areas of standards, assessments, and accountability. This year's report also introduces a new K-12 Achievement Index that evaluates states based on their levels of performance and improvement over time.
- **State Highlights Reports** – Individualized reports featuring state-specific findings from the 2007 *Quality Counts* report are available for all 50 states and the District of Columbia.
- **Education Counts** – This online database contains hundreds of state-level indicators on K-12 education collected over the past decade for *Education Week's* annual *Quality Counts*, *Technology Counts*, and *Diplomas Count* reports. Use the Custom Table Builder feature to create graphs, tables, or maps for specific indicators.



You can access *Quality Counts* online at www.edweek.org/go/qc07