The average homework load for first- through third-graders has doubled over the past two decades, even though research shows homework doesn’t benefit such young children. Indeed, some schools require preschoolers to tackle academic subjects like reading and writing. In response a parents’ movement has arisen — mainly in middle- and upper-income suburbs — protesting excessive homework and other forms of academic pressure, including so-called high-stakes testing. Parents say the added pressure robs children of needed play and family time and can cause stress, sleep deprivation, depression and family strife. Some schools have responded by limiting homework for the youngest children and downplaying stress-causing programs, such as academic honor rolls. At the same time, however, U.S. high school students spend less time in class than students in most other countries, and their homework loads remain far below the two hours per day that research shows is optimal for college-bound students.
STUDENTS UNDER STRESS

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Students Under Stress

BY MARCIA CLEMMITT

When Nancy Kalish’s daughter was in seventh grade, she suddenly began saying, “I hate school,” recalls Kalish, a journalist in New York City. “She started saying it every single day.”

Kalish soon discovered that what had been “a reasonable amount” of homework for Allison in grade school “had mushroomed into four hours a night” in middle school.”

Soon, “our entire relationship revolved around homework,” with “the first question when she came in the door each afternoon, ‘How much homework do you have?’” says Kalish. The answer determined whether Allison would see friends, attend a concert or a grandparent’s birthday party or stay home studying.

The resulting family tension and their daughter’s newfound anger toward school turned Kalish and her husband — once “true believers” in the value of homework — into activists who sought a school policy limiting homework at Allison’s school. With a coauthor, Kalish wrote the 2006 book The Case Against Homework.

Kalish is part of a new wave of parents, many in middle- and upper-income communities, protesting what they say is too much homework — particularly in elementary and middle school — causing stress, sleep deprivation, depression and family strife.

Over the last two decades, worries about global competition have prompted U.S. business leaders and lawmakers to increase pressure on schools to raise achievement. Most of that pressure has fallen on the youngest children, however, even though it’s U.S. high-schoolers who score lowest on international achievement tests.

But high school homework loads haven’t increased, while first-, second- and third-graders have been getting more homework, even though data show homework doesn’t improve learning for young children. And with congressionally mandated standardized testing also aimed mainly at elementary school students, some schools also are pressuring kindergarten and preschool teachers to teach academic subjects to 4- and 5-year-olds, who often lack the physical and cognitive skills to handle them.

Meanwhile, under the 2002 No Child Left Behind law, teachers — especially in high-poverty schools — fear they’ll be unable to bring their students to mandated achievement levels, which could lead to firings and school takeovers. That pressure on teachers may be seeping down to students in such schools, some researchers say.

Piles of homework dim children’s love of learning — while depriving them of vital free time — without improving their school achievement, says Kalish’s coauthor, Sara Bennett, a New York City lawyer.

Polls say that kids no longer read for pleasure after age 8,” mainly because of too much homework, “and I didn’t like the future I was seeing for my children,” says Bennett, who organized parents to fight homework at her children’s schools. Many teachers argue that homework “is reinforcement” of what’s studied in class, “but there’s no evidence that it helps younger children,” she says.

After a years-long struggle, the parents Bennett organized won a new homework policy that limited tests to two per week, declared Monday test-free and banned school projects over certain vacations.

A number of schools around the country are mulling similar moves.

In Massachusetts, for example, Needham High School Principal Paul Richards sought to limit stress after three student suicides in recent years. Richards urges teachers not to give homework over school vacations and to be more flexible about assignment deadlines. He also ended the tradition of publishing the school’s academic honor roll in the local newspaper, which made him the butt of jokes and criticism from “Tonight” host comedian Jay Leno and conservative commentator Rush Limbaugh.

But Richards has stood firm, saying that critics don’t understand the amount of stress his college-bound students feel, even as they try to act cool. For example, “there are perceptions that Boston
College only takes two seniors from each high school,” said Richards. “Students hear this and start ranking each other,” adding more pressure to an already “product-oriented and competitive” culture that’s “gone into overdrive.”

Education researchers who study student workloads say that such high-pressure situations may be more the exception than the rule, however. “Most of what you hear” about excessive homework “is anecdotal,” says Tom Loveless, director of the Brown Center on Education Policy at the Brookings Institution, a Washington think tank. “You have a group of kids who take tons of Advanced Placement (AP) classes and have lots of extracurricular activities who experience a major school-related time crunch, he says. “But they’re not numerous.”

Overall, “all the data show that homework is not increasing,” says Loveless. Currently 30 to 40 percent of U.S. students say that they have zero homework. Furthermore, a survey of college freshmen that’s been repeated since the 1960s shows that high school homework reported by those students “is hitting all-time lows,” about five hours per week — less than an hour per night, Loveless says.

Nevertheless, “I wouldn’t want to trivialize the part of the population that’s saying there’s an overload,” says Harris M. Cooper, director of Duke University’s Program in Education. “It’s unusual but not unheard of to find a teacher who’s piling it on.”

 Especially in schools where many parents are professionals, some students voluntarily take on heavy homework burdens as they seek a competitive academic edge, says Cooper. “There’s lots of pressure to get into the best universities, and this has led some kids to take the most challenging courses they can,” he says. “If you find a student with two AP courses and two honors courses, then each of those will be 45 minutes of homework a night” — three hours overall, more than the usually suggested maximum for high school of two hours a night, says Cooper. “Non-elite courses would only assign about 30 minutes a night each,” he says.

Researchers agree that, to the extent homework burdens have increased in the past 20 years, it’s the school backpacks of the youngest kids that have gained the most weight. From 1997 to 2002, for example, the proportion of 6-to-8-year-old children being assigned homework on any given day rose from 34 percent to 64 percent.

The increase has occurred even though reviews of research on homework by Cooper and others have turned up no evidence that homework actually improves achievement for children of that age.

“In my professional opinion, these trends suggest that the emphasis in the United States is kind of backwards,” says Gerald LeTendre, a professor of education at Pennsylvania State University.

Some school critics also say that new high-stakes testing mandated by some states and by the federal government over the past decade has increased pressure on teachers, whose anxiety often spills over onto students.

“We have a lot of discouraged teachers,” especially in low-income schools, from standardized tests coupled with insufficient resources, says David C. Berliner, a professor of education at Arizona State University. “Schools of education aren’t perfect,” he acknowledges. “But it’s bad when the students come back and say, ‘This is not why I became a teacher.’ They end up being drill sergeants.”

Test pressure is increasing homework pressure in some schools, says Wendy A. Patterson, an associate professor of education at Buffalo State College, in New York. As “the curriculum becomes more loaded with requirements, such as expanded literacy classes” — extra reading-skills classes that have been added to improve test scores — “teachers get to the end of the day with material left, so they send it home” as homework, Patterson says. Such assignments, originally scheduled as in-class work, are usually “bad
homework” — work that children should be doing with the teacher present and can’t be expected to complete on their own — she says.

As parents and teachers debate the proper role of homework, testing and competition in American schools, here are some questions that are being asked:

Are students today under more academic pressure than in past generations?

With businesses and state and federal governments looking more to schools to produce savvier workers and entrepreneurs, some parents say today’s kids face unprecedented school-related stress beginning as early as kindergarten. Critics of that view, however, point to data showing that many students, especially high-schoolers, may actually spend less time on schoolwork than in the past.

While some students probably are working harder these days, “about 90 percent aren’t under much pressure,” says Laurence Steinberg, a professor of psychology at Philadelphia’s Temple University and author of one of the most extensive nationwide surveys ever done of U.S. teens. “A very high percentage of kids in our sample say they do as little as they can without getting into trouble,” he says.

“Compared to high school kids in Japan or Korea, for example, our kids are coasting through a dream,” says Steinberg. The difference shows up on international achievement tests. American elementary school students score well on tests, but by middle school U.S. scores begin to fall, and on the high school tests “we’ve fallen off the charts. If we were really making such great demands, this wouldn’t be happening,” he says.

“More information exists for today’s children to absorb, but that isn’t translating into excess academic pressure, said Lynn Spampinato, deputy superintendent of the Pittsburgh Public Schools. “There’s more for children to learn today, more exposure to all kinds of information at younger ages.” Nevertheless, “I’m not sure I believe we’re pushing children to the edge. I’d say in many cases we’re not challenging them enough.”

Education trends, such as a heavy focus on children’s learning differences and “discovery” learning in which children follow their own interests, are making many classrooms less challenging, according to some analysts.

Learning “inevitably requires very substantial commitments of student time and effort,” but contemporary trends require teachers “to produce learning in ways that are stimulating yet minimally obtrusive,” with “only minimal levels of exertion” from students, said J. E. Stone, a professor of educational psychology at East Tennessee State University in Johnson City.

Today’s education mindset puts the whole burden on teachers to entice students to learn and to avoid boring or pushing them, a far cry from creating excessive stress, Stone says.

### Students Do More Socializing Than Studying

A far higher percentage of high school students spend at least six hours per week on non-homework activities, such as socializing with friends, playing sports and surfing the Internet, rather than on homework or studying.

#### No. of Hours High School Students Spend on Various Activities in a Typical 7-Day Week

<table>
<thead>
<tr>
<th>Activity</th>
<th>0</th>
<th>1 or fewer</th>
<th>2-5</th>
<th>6-10</th>
<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written homework</td>
<td>7%</td>
<td>36%</td>
<td>40%</td>
<td>12%</td>
<td>5%</td>
</tr>
<tr>
<td>Reading/studying for class</td>
<td>12%</td>
<td>43%</td>
<td>35%</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>Reading for self</td>
<td>16%</td>
<td>40%</td>
<td>30%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>Participating in school-sponsored activities</td>
<td>32%</td>
<td>17%</td>
<td>21%</td>
<td>13%</td>
<td>17%</td>
</tr>
<tr>
<td>Practicing a sport or musical instrument</td>
<td>30%</td>
<td>12%</td>
<td>23%</td>
<td>16%</td>
<td>19%</td>
</tr>
<tr>
<td>Working for pay</td>
<td>34%</td>
<td>13%</td>
<td>18%</td>
<td>13%</td>
<td>21%</td>
</tr>
<tr>
<td>Volunteer work</td>
<td>48%</td>
<td>30%</td>
<td>16%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Exercising</td>
<td>8%</td>
<td>22%</td>
<td>36%</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>Watching TV/playing video games</td>
<td>6%</td>
<td>24%</td>
<td>39%</td>
<td>18%</td>
<td>13%</td>
</tr>
<tr>
<td>Surfing/chatting online</td>
<td>21%</td>
<td>27%</td>
<td>30%</td>
<td>14%</td>
<td>9%</td>
</tr>
<tr>
<td>Talking on the phone</td>
<td>8%</td>
<td>32%</td>
<td>32%</td>
<td>15%</td>
<td>13%</td>
</tr>
<tr>
<td>Socializing with friends outside of school</td>
<td>4%</td>
<td>10%</td>
<td>32%</td>
<td>27%</td>
<td>27%</td>
</tr>
</tbody>
</table>

* Percentages may not total 100 due to rounding.

Low-Income Kids Face Toughest Pressures

Creating a family atmosphere in the classroom helps

S\lya universal affliction among students, but the impact of psychological stress and school pressure is particularly hard on low-income students, many analysts say.

New high-stakes testing required by the federal No Child Left Behind (NCLB) law, for example, puts more pressure on students in low-income areas, says Peter Sacks, the author of several books on standardized testing and the relationship between social class and education.

In suburban areas, where children typically enter school with the social, physical and cognitive skills needed to master academic requirements later on, test pressure doesn’t constantly haunt the classroom, says Sacks. “Teaching and learning can be done for the sake of teaching and learning, not with testing proficiency targets always in mind.”

In low-income schools, however, many kindergarteners start out with well under half the skills and knowledge that school-ready children are expected to have, “so the ground they have to cover over time is so much greater,” says Sacks.

“You want to talk about pressure? The entire school has a siege mentality because failure to meet the [NCLB] goals can lead to the firing of teachers” and takeover of the school, he says. “As a consequence, in many low-income schools teaching and learning is reduced to whatever is necessary to score on the test.”

In the new age of high-stakes testing, “over and over again, I hear teachers say, ‘We have no time if students have a question,’ ” says Sharon L. Nichols, an assistant professor of educational psychology at the University of Texas, San Antonio. Because schools with many low-income students have the most ground to make up, “this is disproportionately affecting poor and minority kids and further disenfranchising them,” Nichols says.

High-stakes testing also can act as “a disincentive for recruiting” the neediest kids to good schools, since administrators may fear an influx of high-needs children will harm overall test scores, says Sacks. “When schools with many low-income students have the most ground to make up, this is disproportionately affecting poor and minority kids and further disenfranchising them,” Nichols says.

She hopes to overcome testing hurdles by persuading state school auditors to “compare us to the specific schools our kids are coming from” and to “show progress through longitudinal assessment of our own kids,” she says.

The American educational system puts ever more pressure on teachers but less on students, according to Paul A. Zoch, a longtime high school Latin teacher and classics scholar and the author of a recent book on school trends. Increasingly, “too many people in our society see the teachers as the ones who bear the responsibility for creating excellence,” said Zoch. “When students fail to learn” today, parents and others “blame the teachers for not teaching in the correct way for each student.”

But others point to what they say are new, intense pressures on at least some children.

Even modest homework demands take a higher toll on poor students, according to John Buell, a former professor at the College of the Atlantic, in Bar Harbor, Maine, and the author of two books on homework. Students in poor families often have greater family responsibilities and lack basic supports for doing homework, such as a quiet, well-lit place to study, dictionaries and Internet access, he says.

In a study of high dropout rates among low-income, rural students in Maine, Buell and a colleague conducted extensive interviews, asking dropouts “if there was a point in their education when they knew they simply were not going to make it,” he said. “Much to our surprise, every student had a story about homework.”

Indeed, among the lowest-income students, mostly black and Hispanic, “half don’t even graduate” from high school in an era when graduation is expected of virtually everyone, says Laurence Steinberg, a professor of psychology at Philadelphia’s Temple University and author of one of the largest sociological surveys ever done on U.S. teens. Impoverished children also have the highest rate of mental-health problems, another sign of stress in their lives, he says.

Building in supports to help students withstand such pressures is a mission of some schools that seek to raise academic achievement in city neighborhoods. To provide a supportive family atmosphere in the classroom, the New City Public Schools Charter School in Long Beach, Calif., teaches some lessons in mixed-age classrooms, says Co-Director Stephanie Lee. New City also aims to make its students bilingual in English and Spanish, so afternoons feature multi-age K-5 groups, with “the older kids serving as language models,” says Lee. New City children also keep the same home room teacher for three years running, and teachers make frequent home visits.

“Many of our kids are coming in here feeling like failures,” says MacFarlane. To boost students’ faith that they can achieve, “every kid needs to feel success throughout the school day,” she says. To do that, Celerity Nascent also “infuses the [extended] school day with martial arts, dance, painting and yoga,” she says. “We’re here on Saturdays and Sundays, too,” says MacFarlane. “We have to kick the kids out.”

to competitive colleges and universities,” says Steinberg.

“It’s gotten about 200 percent harder to get into Harvard than it was in the 1960s,” says David P. Baker, an education professor at Pennsylvania State University.

In suburban areas where many parents are educated professionals, “we are seeing increasing anxiety and depression levels” and sleep deprivation, from students under pressure to be accepted at a handful of elite colleges, says Denise Clark Pope, a lecturer at Stanford University’s School of Education and author of a book on stressed-out students. In a recent survey of 10 schools in the San Francisco Bay area, Pope found schools reporting “higher percentages of kids with stress and anxiety and kids cheating.”

In the Northeast, too, more affluent parents are “inappropriately pushing” kids beyond their capabilities to be “superkids,” says Carl Arinoldo, a psychologist in Stony Brook, N.Y., who has written books on managing stress. The pressure reaches to the youngest children, says Arinoldo. “There are a number of preschools in Manhattan, for example, that are hammering away at academics,” even though 3- and 4-year-olds “need to run around and play spontaneously” instead.

To the extent that increased school pressure exists, it’s hitting younger children harder, many experts agree.

For example, the only place that school homework levels have been increasing “is the only place where it really doesn’t make sense — elementary school,” says Penn State’s LeTendre.

From 1997 to 2002, the proportion of 6-to-8-year-old students assigned homework rose from 34 percent to 64 percent, according to professors from the University of Maryland and McGill University.

“I have witnessed firsthand the changes in grade-level expectations,” a parent from Roanoke, Va., wrote in an online chat. What were fifth-grade lessons three decades ago are third-grade lessons today, she said. 7

Are schools assigning too much homework?

Several recent books have called for an end to homework, describing it as a growing burden on American children that threatens family life. Some analysts argue, however, that while a few teachers may go overboard, most students still bring home only modest amounts.

In surveys, about 10 percent of parents complain students get too much homework, 25 percent say not enough is assigned and the remainder — a strong majority — says the amounts are just about right, said Loveless of Brookings. “The issue has been overhyped,” partly because “journalists run in the high-powered crowd whose children feel pressured to take four Advanced Placement courses,” he says. There are students in that position, and some likely are overburdened, “but they’re not numerous.” 8

In a 2006 Associated Press-AOL poll, 57 percent of parents said amounts of homework are “just right,” and the rest split between “too little” and “too much,” says Cooper of Duke. “Educators will never be able to please everyone, and they’re doing well when three-out-of-five people are pretty happy with the current amounts.” 9

### School Is Leading Cause of Stress

**Nearly two-thirds of San Francisco Bay-area parents say the amount of schoolwork assigned to their children is a cause of stress. More than half the parents said pressure to excel also exerts stress.**

#### Factors Contributing to Children’s Stress, According to San Francisco Bay-Area Parents

(by amount of stress)

<table>
<thead>
<tr>
<th>Source</th>
<th>Very much</th>
<th>Somewhat</th>
<th>Not very much</th>
<th>Not at all</th>
<th>Too young to say</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of schoolwork</td>
<td>23.8%</td>
<td>40.0%</td>
<td>15.0%</td>
<td>16.8%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Pressure to excel in school</td>
<td>11.2%</td>
<td>42.6%</td>
<td>11.5%</td>
<td>29.5%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Peer relationships</td>
<td>11.6%</td>
<td>35.5%</td>
<td>21.9%</td>
<td>28.6%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Extracurricular activities</td>
<td>4.9%</td>
<td>28.1%</td>
<td>13.5%</td>
<td>52.0%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Difficulties with family members</td>
<td>4.0%</td>
<td>18.3%</td>
<td>10.0%</td>
<td>65.9%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Divorce or separation issues</td>
<td>8.5%</td>
<td>13.8%</td>
<td>5.0%</td>
<td>70.1%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Family financial pressures</td>
<td>3.8%</td>
<td>12.2%</td>
<td>11.6%</td>
<td>69.3%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Illness or death of loved one</td>
<td>4.5%</td>
<td>12.9%</td>
<td>8.6%</td>
<td>70.7%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

* Percentages may not total 100 due to rounding.

Source: “Child Stress, by Source. 2006” Kids Data, August 2006
Parents Say Children Get Enough Free Time

More than three-quarters of San Francisco Bay-area parents say their children have the right amount or more than enough free time, despite homework and other activities. Affluent parents are typically concerned about their kids’ lack of free time.

How much free time do you believe your child is getting?

- More than enough: 27.2%
- About the right amount: 53.5%
- Not nearly enough: 3.7%
- Not quite enough: 13.9%
- Do not know: 1.6%

*Percentages do not total 100 due to rounding.

Given the level of distractions in modern life, it’s likely that some families who complain about homework overestimate the amounts, says Loveless. “Compare a middle-class kid’s bedroom today to one 30 years ago,” he says. “It didn’t have cell phones or instant messaging or downloading from the Internet. So when kids are supposedly in their rooms doing homework, how much time are they actually spending on homework?”

East Tennessee University’s Stone argues that many adults are “too likely to ignore the key reality about learning: It’s more than play.”

“Learning takes work; it’s a life-dislocating activity” that will inevitably lead to some parent-child struggle, Stone says. It’s parents’ job to require children to complete school chores, despite struggles, because the short-term pain brings long-term gain, he says. “Kids aren’t aware of their long-term needs,” so they protest, he says. “They don’t realize they’re going to run into a world where there are no excuses.”

Homework loads are about the same as they’ve always been for most students, says Penn State’s LeTendre. What has changed is the amount of “structured time” experienced by children today, a fact that “has been left out of policy discussions,” he says. Unlike in the past, most “parents are no longer home to welcome the kids after school,” in part because many children play sports or attend classes until nearly dinner time. The result is a changing perception about what constitutes “too much” homework, he says.

“Fifteen minutes of homework doesn’t seem like a lot if you have nothing to do,” but it can seem overwhelming if a child arrives home from another structured activity at 5:30 in the afternoon and has a 7:30 or 8 o’clock bedtime, LeTendre says.

But homework opponents say there’s evidence that many children are assigned unreasonable amounts of work.

In the recent Associated Press-AOL poll, elementary school students reported an average of 78 minutes of homework each school night, and middle-schoolers reported 99 minutes, says The Case Against Homework coauthor Bennett. That’s a far bigger homework load than children would have if teachers were following the so-called 10-minutes-per-grade rule of thumb endorsed by groups like the National Education Association and the National Parent Teacher Association, Bennett points out.

In addition, “there is no evidence of any correlation between homework and achievement in elementary school,” yet homework amounts for grade-school children have been rising, says Bennett, and possibly causing harm.

In researching her book, Bennett found that “homework can cause a lot of family conflict.” Moreover, assigning homework to young children may be conditioning them to cheat later on, she says. Many parents “say their kids come home and need help in math” or help with a project, like a diorama or science project. “When the kids get a lot of parental help” in the early years, “they get dependent on it,” Bennett says. “It confuses them about whether it’s OK to get help with your work.”

Researchers have found that about five math problems “are enough to tell whether a child understands the concept and can move on or doesn’t understand and needs help,” yet many teachers assign 30 or more problems, says coauthor Kalish.

“Even the U.S. Department of Education” makes the five-problem recommendation, says Kalish. “If a child who didn’t get the right idea in class slogs through 30 problems, she’s just cementing the wrong method in her brain.” Meanwhile, a child who did catch on, finds the 30 problems drudgery and ends up hating school, Kalish says.
Excessive homework has caused some low-income students to drop out of school, according to Etta Kralovec, an associate professor of education at the University of Arizona at Sierra Vista and author of the book *The End of Homework*. The more hectic family lives and greater responsibilities of many lower-income students, along with a lack of the Internet and other learning tools at home have led some to give up on school altogether, Kralovec said. 10 (See sidebar, p. 582.)

Despite popular belief, eighth-graders in some industrialized countries actually do less homework than U.S. children while scoring just as well or better or achievement tests, said Kralovec. (See chart, p. 588.) Many other countries depend on more in-class time and less homework than the United States, with better results, because classrooms are a “sacred space” specially set aside for study, and teachers’ help is available, she said. 11

“It’s not that homework is wrong,” it’s that too much current homework is of the fill-out-the-worksheet variety and keeps children from other valuable activities, like social interaction, says Arizona State’s Berliner. “If homework has the effect of isolating the child from his family, then that’s bad, generally,” says Berliner. A better idea would be to ask children and parents to play some games together and talk about them or watch and discuss a television program, he says.

Experts on all sides of the issue agree that the current American practice of increasing homework for younger kids while allowing many high-schoolers to carry a relatively easy load makes little sense.

“All the data suggest that homework helps at the high school level, has mixed results in middle school and either makes no difference or even has negative consequences for elementary students,” says LeTendre, yet current U.S. homework trends go exactly the other way.

### Few Complain About Homework

*A majority of parents and students think the right amount of homework is being assigned. Only one-fifth of students complain about too much work.*

**Overall, do you feel that you/your child is getting too much homework, too little or about the right amount?**

![Chart showing percentages of parents and students regarding the amount of homework](chart.png)

*Percentages do not add to 100% due to rounding.*


### Are high-stakes tests putting too much pressure on students?

About 20 years ago, some states began implementing so-called high-stakes tests — exams that students must pass to earn diplomas or move to the next grade. The 2002 No Child Left Behind law added another layer of tests, this time with high stakes for schools themselves. Under federal regulations set by NCLB, schools that don’t produce required test scores could eventually have their entire staffs replaced or be taken over by the state or a private group. 12

Some critics argue that the tests unduly increase pressure on students. Others, however, say there’s no evidence that testing is creating rushed or anxious classrooms.

In a study of Arkansas fourth-graders, University of Arkansas Professor of Educational Statistics Sean W. Mulvenon found “the vast majority of students do not exhibit stress and have positive attitudes towards standardized testing programs.” 13

While some students did express anxiety, the “overall student sentiment” was that the tests didn’t raise anxiety or result in greater pressure from teachers or parents to perform, according to Mulvenon. Furthermore, students who did report more anxiety or pressure didn’t do worse on the tests, Mulvenon reported.

In a study of Minnesota’s high-stakes tests, University of Minnesota Assistant Professor of Evaluation Studies Stuart S. Yeh found that most principals and teachers believed that the state’s program — which takes pains to make tests match the school curriculum — has improved the learning environment in many schools.

To prepare students for the tests, teachers now work as teams to “enrich the curriculum,” a middle-school principal told Yeh. Contrary to what many experts fear, teachers aren’t “teaching to the test” — by exclusively drilling students on questions similar to those on the exam or alerting them to test-taking tricks, said an elementary school
What gets lost for such students is not only “the pleasure of learning” but also the ability to apply their learning outside of the test, Peterson says. “If the class focus is, ‘You have to do this because of the test,’ ” the goal of “mastery learning” — learning to transfer new skills to other places — often suffers, she says. “You end up only going through the motions.”

Some testing pressure falls on the youngest children, preschoolers through second-graders, who aren’t even old enough to be required to take the tests. “If a school is getting pressure for students to perform on tests in third grade, then the third-grade teacher is looking to the second-grade teacher and the first-grade teacher” to help make that happen, says Peterson. Such pressure has an upside, when “a group of teachers ends up working more together.”

But some schools take the collaboration too far, pushing teachers of younger children into teaching content that most of the children in their classes aren’t ready to master, Peterson says. International comparisons warn that too-early academic lessons actually may slow students down, says Arizona State’s Berliner. Finland and Sweden, for example, delay many formal lessons such as reading until first grade and later, and yet their students are “among the highest achievers” on international tests, he says.

### Background

#### Schooling Expands

Today’s lawmakers and business leaders have upped the pressure on American schools, urging them to raise graduation rates to 100 percent. Meanwhile, a growing number of students, mostly from affluent families, compete ever more fiercely for a limited number of spots in top colleges.

At the root of the pressure, according to Penn State’s Baker, is a single, big idea that has come to dominate the thinking about education: Academic achievement “has become about the only way to invest in your kids’ future.”

In the past, numerous paths could be taken to successful adulthood, including joining a family business and learning a trade. But today, in the United States and, increasingly, worldwide, alternate opportunities “are gone,” Baker says. As a result, “Longer and longer school careers are being seen everywhere. You’re ending up with a schooled society, where school is the only game in town, so everybody has to play it.”

Continued on p. 588
1880s-1940s

Some educators and doctors argue against homework on health grounds. Boston, San Francisco and other cities ban or limit homework.

1890
Less than 6 percent of American students attend high school.

1900
Ladies’ Home Journal Editor Edward W. Bok calls homework “barbarous,” publishes articles by doctors and parents who argue it harms children’s health.

1930
Nearly 51 percent of American students attend high school, but academic courses begin to give way to classes that have no tests or homework, such as health.

1940
More than 73 percent of American teenagers attend high school.

1948
Only 8 percent of high school students do two hours or more of homework daily.

1950s-1960s

High school homework increases amid fears that the U.S. is becoming less economically competitive.

1957
U.S. high schools increase homework in response to the Soviet Union’s surprise launch of the first satellite, Sputnik 1. For most of the 1960s, about 20 percent of high-schoolers do two hours or more of homework daily, an all-time high.

1958
National Defense Education Act funds schools to beef up math, science and foreign-language courses.

1961
Sociologist James Coleman’s book The Adolescent Society declares that a separate, influential, teenage culture has developed that values good looks over learning.

1970s

High school students’ homework drops to pre-1950s levels.

1970
Percentage of students taking demanding academic courses falls. . . . Harvard University accepts about a third of students who apply.

1980s

U.S. students’ scores slip on international tests, prompting a rise in homework levels, especially for elementary- and middle-school students.

1983
National commission initiated by President Ronald Reagan reports in A Nation at Risk that a “tide of mediocrity” is overwhelming American schools.

1990s

Parents and educators fight rising homework loads for children. Some states institute standardized tests as a high school graduation requirement.

1997
Students 6 to 8 years old do twice as much homework as in 1981.

1999
TV host Oprah Winfrey highlights parents’ complaints about an “onslaught of homework.”

2000s

Congress inaugurates “high stakes” testing for schools, which can eventually face takeover or mass firings if they fail to meet federal goals.

2002
Congress passes No Child Left Behind law (NCLB).

2006
The principal of Needham High School in Massachusetts limits homework and stops publishing the honor roll in the local newspaper. . . . College freshmen report some of the lowest levels of high school homework ever. . . . Associated Press poll finds 57 percent of parents say their children get the right amount of homework. . . . Schools in Greenville, S.C., limit homework.

2007
School districts in San Marcos, Calif., and Middletown, Ohio, try excluding homework from course grades. . . . Norwalk, Conn., considers limiting daily homework and banning weekend homework for grade-schoolers. . . . Several San Francisco Bay-area schools ban elementary-grade homework. . . . Harvard accepts about 10 percent of applicants.

2014
All U.S. students must demonstrate proficiency in math and reading by this date under NCLB.
Even for students who don’t fit the linguistic/mathematical mode of most academic schooling, “there are far fewer alternatives” than in the past. “That’s what creates the pressure,” he says.

It was only a hundred years ago that industrial nations came to believe that government should provide basic education to all, says Baker. Since then, the proportion of children attending school has grown rapidly. During the early 20th century, wealthier countries expanded their primary education, and in the 1930s and ’40s secondary education took off. But “only in the mid-’60s was it assumed that everybody should finish high school,” Baker says.

As early as 1930, about half of all American students attended high school. And by the late 1960s, only half of all students were graduating from high school, Baker says.

The change didn’t happen just because modern jobs require more training, says Baker. Instead, it reflects “the success of a cultural idea — that we can make people better through education.” That’s evident in the fact that vocational training now takes a back seat to academic courses in most places, including the United States, says Baker. Governments around the world “have totally bought into” the idea that higher-order thinking skills and academic subjects, rather than vocational skills, should be the main content of education for virtually all students, he says.

Baker doesn’t foresee any letup in the expansion of academic schooling. “Every time people predicted over the past 100 years that schooling wouldn’t expand, they were totally wrong,” he says. Today “graduate students and undergraduates want two degrees rather than one. A smart kid in law school wants a PhD in economics,” too.

### Different Visions

But while the world’s children go to school in ever greater numbers, exactly how students learn best remains a matter of debate.

Among Americans, especially, some parents believe in allowing children to develop largely at their own pace, pressure-free, says Brookings’ Loveless. These parents are likely to oppose both homework and testing, he says. Meanwhile, some cultures embrace a general belief “that children’s main job is to master all the stuff that the culture thinks is important,” leading parents there to value study highly, Loveless says.

Most American students are below the international average for time spent on academics, taking class time and homework time together, although many may be busier in some ways than students in other countries.

#### Foreign Middle-Schoolers Do More Homework

The percentage of American elementary school students who spend four hours or more a day on homework is roughly the same as for the average student overseas. Among middle-schoolers, however, the percentage of Americans is half that of the average foreign student.

**Percentage of Students Who Spend Four or More Hours Daily on Homework**

(in selected countries)

<table>
<thead>
<tr>
<th>Elementary Students</th>
<th>Middle School Students</th>
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International average: 9%

International average: 10%


Continued from p. 586
American teenagers “go to school less,” with “a shorter school year . . . a shorter school day . . . and less homework,” said Loveless. “When you look at how education is thought of as part of a teenager’s life in Europe and Asia, it is totally different than the United States.” 17

By international comparisons, American students have less academic work but “more structured time” — in extracurricular lessons and clubs, team sports and after-school jobs — than in other countries, perhaps partly accounting for the stress that some feel, says Penn State’s LeTendre.

“Over half of American seniors work part time at some point during the school year,” said Loveless. Around the world this is . . . absolutely unheard of. In fact, it is a stigma in most of Europe and Asia if you work when you are a teenager; it means something bad. It means your parents don’t care enough about education. Your family needs money,” he said. 18

When it comes to homework, international comparisons are tricky, partly because cultures have different notions about what actually counts as homework.

Some “high-achieving Asian nations report almost no homework,” but that report may be deceiving, says Loveless. In China, for example, “a child may come home without a homework assignment, but nevertheless the kid will sit down at a table with mom and study all evening,” he says. In countries like Korea and France, there’s “a thriving market of after-school schools,” but that work often isn’t called “homework” when people are surveyed, he says. Whether there’s formal homework or not, however, in most European and Asian countries “the kids are really focused on learning” as their main occupation, Loveless says.

Moreover, when it comes to assigned homework, international studies don’t show a clear connection between homework and achievement.

For example, on international tests many countries with the highest scores, including Japan, the Czech Republic and Denmark, report very little assigned homework, says Penn State’s Baker. Meanwhile, students in countries including Thailand, Greece and Iran get low average scores but attend schools that assign a lot of homework. 19

Differing views of homework’s purpose also make cultural comparisons difficult. For example, the United States is one of the few nations where teachers include homework scores as an element of course grades. Elsewhere, homework is often regarded as practice or preparation only. Eighty-two percent of American teachers give grades to homework, compared to 14 percent in Japan and 6 percent in Germany. 20

Cold War Fears

In the United States, the pros and cons of homework are regularly debated. However, many researchers say that while attitudes have varied, the average American student has seldom been overburdened with take-home work.

Beginning in the final decades of the 19th century, education theorists, doctors and others launched a long campaign against what many thought was an overemphasis on at-home drill and memorization, especially in high schools. 21

In 1901, for example, California legislators banned homework for children under age 15, who lawmakers declared would be better off playing outdoors. In 1941, an article in the Encyclopedia of Education Research declared that “the benefits of assigned homework are too small to counterbalance the disadvantages.”

By the 1940s, homework opponents had largely won the day, and in 1948 only 8 percent of U.S. high school students reported doing more than two hours of homework daily.
Tailoring Teaching to Fit the Brain

Neuroscience helps overcome students’ cognitive difficulties

Learning research suggests that “the more homework is individually structured to the student, the better it may work,” says Pennsylvania State University Professor of Education Gerald LeTendre. But time-pressured teachers often respond to demands for improved student achievement with one-size-fits-all assignments like worksheets. And “there is not a lot of evidence this is effective,” says LeTendre.

Some education experts say that as the findings of neuroscience seep into schools of education, the tide may turn in favor of more individualized instruction. That prospect isn’t as scary as some teachers think, says Mary Dean Barringer, CEO of the All Kinds of Minds Institute, in Chapel Hill, N. C., which educates parents and teachers on individualized approaches to teaching children, based on cognitive science.

“The main mistake teachers make is they think you need a different plan for every kid,” says Barringer. “That’s not it. The key is: Just don’t go right down the middle in your instruction, she says. Teachers can learn the particular cognitive challenges presented by different subject matter and point them out to students, along with some strategies that will help those with differently wired brains.

For example, many youngsters are more spatially than verbally oriented, says Michael Gurian, a family therapist in Colorado Springs who has written several books on learning.

One strategy that helps spatially oriented kids succeed at writing is having them tap into their spatial-thinking abilities before committing pen to paper, Gurian says. “Allow the kids to draw a storyboard of what they want to write; then, after an hour of drawing it have them start writing,” he says. The visual kick-start makes their writing better organized and more detailed, he says.

Different lessons call for different learning skills, and students can be shown how to compensate if they’re weaker in those areas, says Barringer.

For example, in a science course, “there are lots of sequences that students must keep track of,” such as the individual steps of an experiment they’re carrying out in class, she says. “You will have some kids whose minds aren’t wired for temporal sequences,” so it’s important to point this out and suggest other ways they can approach the task, like visualizing a sequence as they read or hear about it, Barringer says.

Over the past three decades, neuroscience studies of conditions like Alzheimer’s disease and dyslexia have shown a lot about the very different wiring of individual human minds, says Barringer. “There have been just amazing breakthroughs in brain research and learning,” she says.

But while much of the new science has emerged in the last decade, many teachers were trained 20 to 30 years ago and aren’t aware of the information, she says. Nevertheless, many observant teachers already have a repertoire of strategies that facilitate learning different kinds of material, although they don’t often realize that they do, says Barringer.

The place for teachers and parents to start is by observing an individual child’s behavior and schoolwork to see how the child’s mind is wired. Too often, when a child has learning difficulties, the entire focus is on what is going wrong, says Barringer. Instead, “look first at what’s going right,” she recommends. “You get a very good profile from looking at the child’s strengths,” which enables teachers and parents to help the child compensate for deficiencies.

“Kids who have differences in learning have faced added pressure from being in schools where their minds were misunderstood, she says. But today there’s a much greater possibility of finding a parent or an educator who has the knowledge to help. Kids in this decade have a better chance of finding someone.”

Beginning around 1950, however, a new wave of critics complained that American schools had become anti-intellectual and soft.

In 1957, the Soviet Union’s surprise launch of Sputnik 1, the world’s first satellite, further roused the critics. Worried that schools weren’t preparing students to best America’s Cold War rivals, Congress in 1958 passed the National Defense Education Act, increasing federal aid for math, science, foreign language and technical education.

The new national focus on education ushered in an era of more homework, primarily in high schools. By 1960, more than 20 percent of high school students reported doing more than two hours of homework each day.

But the trend survived only for about a decade. By the early 1970s, high school homework levels were nearly back to the very low levels of the 1940s, with fewer than 10 percent of students reporting more than two hours daily. By the early 1980s, the proportion of high school students reporting more than two hours of daily homework edged up slightly, to just over 10 percent, where it has largely remained ever since.

Bulging Backpacks?

In the early 1980s, homework again became a national issue. In 1983, President Ronald Reagan’s National Commission on Excellence in Education issued *A Nation at Risk*, a report arguing the once mighty American education system was “being eroded by a rising tide of mediocrity.”

Effort and discipline were prominent among the elements missing from the schools, the commission said. “Our society and its educational institutions...
How Cognitive Science Helps Teachers

Educators say research findings are not widely understood

Are our children overscheduled? Should preschool children be taught to read? When does academic challenge become academic pressure?

Cognitive science is beginning to answer such questions, but the findings don’t make it into the classroom.

Putting discoveries in cognitive science — the study of thought and learning processes — to work in education will happen, but the process is only beginning, says Bror Saxberg, chief learning officer at K12 Inc., a Herndon, Va., firm that develops online-learning products. “When you look at how teachers are trained, there’s still not much said about how minds work,” he says.

Here are some of the research findings that analysts say should be more widely understood by schools and families:

• Many American children and teens are overscheduled and overstimulated, putting their health and ability to learn at risk. What look like activities that lead to children’s success, such as sports teams and music lessons, are “overstimulation that actually can stress a growing child’s brain,” says Michael Gurian, a family therapist in Colorado Springs.

Parents should remember that “boredom is crucial” for children to develop their own personalities and talent profiles, Gurian says. “You have to let your kids be bored for at least an hour a day” — with no TV or computer — to figure out what they enjoy doing. “If they’re never bored, they’ll never find out who they are.”

Sleep is also crucial for brain development and learning, and “about 40 percent of children don’t get enough,” Gurian says. Sleep deprivation is an unrecognized problem for many teenagers, too, says Denise Clark Pope, a lecturer at the Stanford University School of Education. “Not a lot of people know that adolescents need nine and a half hours.”

• Studies show “that kids who attend preschool — traditional, non-academic preschool — do well in K-12,” says Gary Mangiofico, CEO of Los Angeles Universal Preschool, an independent public-benefit corporation promoting preschool.

“However, some have backward-mapped from that to argue that we should focus on preschool as an academic thing, to begin preparing children at age 4 for the high-stakes testing they will face later,” Mangiofico says. But 4-year-olds’ main developmental jobs include learning how to socialize, use their bodies in large-motor and fine-motor skills and get better control of their emotions — skills they must master before they can successfully tackle reading and writing, he says.

• Cognitive scientists say mastering a complex skill takes “10 years of deliberate practice,” according to Saxberg. “It’s the way Tiger Woods keeps rethinking his swing.” After a period of slow, conscious practice, though, skills are mastered and move into “the huge infrastructure of subconscious modules in which expertise you’ve already developed is stored,” he says. That’s what has happened once we can write longhand and think through an essay at the same time, he explains.

There’s “no short cut” to going through an initial period of slow practice building any skill, says Saxberg. But the good news is that mastering a skill doesn’t depend on innate talent but “whether you have the will, patience and interest to put in that practice,” he says.

• Another lesson from cognitive science is that minds do best “when they’re challenged, but not too challenged,” says Saxberg. Teachers assigning homework must make sure that the work is doable and that kids have a way to prove that they’ve mastered the task; then they can stop practicing, Saxberg explains.

“Some teachers think they’re doing the right thing by assigning mounds of worksheets for practice, he says. But once children know how to do it, they begin to hate the work, and their performance drops off, Saxberg says. Assignments that are too difficult also prevent students from performing well, he says.

Available online: www.cqresearcher.com

High school students’ homework burden has increased little overall. In a national survey in 1999, for example, 11th-graders reported only slightly more homework than eighth-graders.

Only 12 percent of 11th-graders reported two hours or more of daily study, compared to 8 percent of eighth-graders, although two hours of homework is often considered the gold standard for high
school students and too much for middle-schoolers. Close to two-thirds of both eighth- and 11th-graders said that they had less than an hour of daily homework.

Research shows little evidence that homework improves learning or school achievement for children in the early grades, says Arizona State’s Berliner. “Through junior high, the relationship between homework and achievement doesn’t exist, while in high school there is a relationship,” he says.

For older students, a moderate amount of homework — 60 to 90 minutes per night for middle-schoolers and 120 minutes for high-schoolers — has been shown to improve student achievement, says Cooper of Duke University. Students who do less as well as those who report doing more both achieve less, says Cooper, who published a study in 2006 synthesizing all existing research on homework amounts. (See “At Issue,” p. 593.)

For elementary school students, no amount of homework raises academic achievement, Cooper says. Nevertheless, a rule of thumb for many educators is that 10 minutes of daily homework per grade of school is appropriate, and that principle seems to be in line with children’s developing attention spans and grasp of study skills, he says.

Even more important than how much homework is what kind, say many educators. Nevertheless, while schools of education acquaint teachers-in-training with theories of learning and lesson planning, none actually offers specific classes on assigning homework.

“I called 15 schools of education, and I’ve spoken to thousands of teachers, but I never came across a teacher yet who has taken a course” on home-

Heavy backpacks suggest these Boston students have plenty of homework. The National Education Association and the National Parent Teacher Association endorse the so-called 10-minutes-per-grade rule of thumb for homework.

work, says The Case Against Homework coauthor Bennett.

Teachers don’t always give enough thought to the ramifications of their assignments, but they should, said Bea McGarvey, an education consultant who formerly was executive director for education in the Portland, Maine, public schools.

She had traditionally asked her grade-school students to build dioramas depicting favorite scenes in the children’s book Make Way for Ducklings, McGarvey recounted. But as she considered the issue of homework more closely, she decided that the assignment didn’t make sense.

Did students need to complete a three- to-five-day project that in the end would demonstrate only a literal understanding of the story? No, McGarvey decided. Writing a short description of a favorite scene would demonstrate exactly the same amount of learning without wasting hours with scissors and glue, she concluded.

The question of how much and what homework to assign will be crucial as long as schools look for the best ways to help students learn.

But the current battle — mostly led by parents who decry homework’s threat to family time — reflects “larger cultural wars” over the place of work in Americans’ lives generally, said John Buell, an education scholar and columnist for the Bangor [Maine] Daily News and the author of two books on homework.

As commutes lengthen and more adults have a 24/7 connection to their jobs through cell phones and laptops, “Americans increasingly have a . . . love-hate relationship with work,” considering it “one of the central meanings of life” but resenting the time it takes from other things, said Buell. “Although the debate over homework involves genuine pedagogical issues, one cannot fully understand . . . the heat surrounding it without . . . attention to this cultural civil war over whether work is to retain its all-encompassing place in our culture.”

Continued on p. 594
Do American students get too much homework?

When most of us were growing up, our homework was manageable. We were able to complete it without constant supervision, then run out to play (and burn some calories), have dinner with our families and go to bed at a reasonable hour. But today many young children are giving up all those things to spend hour after sedentary hour at their desks.

According to a 2006 Associated Press-America Online poll, elementary school students average 78 minutes of homework per night while middle school students average 99 minutes. That might not sound like much. But it means children are routinely spending 50 percent more time on their homework than the 10 minutes total per grade level per night recommended by the National Education Association, the National PTA and Duke University's Harris M. Cooper (essay at right). And when researching our book, my coauthor and I had no trouble finding many children who put in much more time, including first-graders working more than an hour each night.

Those time limits were established for a reason: When schools push beyond them, many children, including teens, are developmentally unable to cope. They react by misbehaving, becoming anxious, burning out and eventually coming to hate school — not exactly the way we want our young people to feel about learning. The stated goals of homework — to foster responsibility and reinforce learning — are often overshadowed by the crushing load.

For all this sacrifice, you'd assume there's a great payoff. But there isn't. Cooper's own review of the homework research found little correlation between homework and achievement in elementary school and only a moderate correlation in middle school. Even in high school, Cooper says more than two hours of homework can diminish its effectiveness and become counterproductive. Ironically, there's plenty of research showing that exercise, play and the family dinner — all things children are giving up — are more highly correlated with cognitive development and achievement than is homework.

So where does this leave us? I don't believe homework should be abolished — just brought back into balance. It's true that homework overload doesn't affect every child. But even if only 10 percent of America's 54 million schoolchildren are suffering (and I believe it's much more), it's still a serious problem for those 5.4 million. All children need time for active play, time to spend with their families and time to be, well, children. No American child deserves any less.

An Associated Press poll in 2006 found that about 57 percent of parents felt their child was assigned about the right amount of homework. Another 23 percent thought it was too little, 19 percent thought it was too much.

Educators should be thrilled. Pleasing a majority of parents and having equal numbers shouting "too much!" and "too little!" is about as good as they can hope for.

My colleagues and I have conducted a combined analysis of dozens of homework studies to examine whether homework is beneficial and what amount is appropriate.

The question is best answered by comparing students who are assigned homework with students assigned no homework but who are similar in other ways. Such studies suggest that homework can improve scores on class tests. Students assigned homework in second grade did better on math, third- and fourth-graders did better on English skills and vocabulary, fifth-graders on social studies, ninth- through 12th-graders on American history and 12th-graders on Shakespeare.

Less authoritative are 12 studies that link the amount of homework to achievement but control for other factors that might influence this connection. Such studies, often based on national samples of students, also find a positive link between time on homework and achievement.

Yet other studies correlate homework and achievement with no attempt to control for student differences. In 35 such studies, about 77 percent find the link between homework and achievement is positive. Most interesting, though, these results suggest little or no relationship between homework and achievement for elementary school students.

Why might this be so? Younger children have less-developed study habits and are less able to tune out distractions. Studies also suggest that young students who are struggling in school take more time to complete assignments.

So, how much homework should students do? A parent guide from the National PTA and the National Education Association states, "Most educators agree that for children in grades K-2, homework is more effective when it does not exceed 10-20 minutes each day; older children, in grades 3-6, can handle 30-60 minutes a day; in junior and senior high, the amount of homework will vary by subject." These recommendations are consistent with the conclusions reached by our analysis.

My feeling is that policies should prescribe amounts of homework consistent with the research evidence, but also give schools and teachers some flexibility. In general, teachers should avoid either extreme.
Reevaluating Homework

A spate of recent books and news reports questioning the value of homework has prompted many schools to reevaluate their policies. Meanwhile, data are just beginning to emerge about how the new era of high-stakes testing under NCLB is affecting students and teachers.

Dialogue among parents, teachers, and school administrators often leads to lighter loads of more carefully developed assignments, says anti-homework author Kalish. The dialogue can be a bit hard to launch, she says. Parents tend to consider homework such a time-honored tradition “that there’s no hope of change,” she says. At the same time, “the school administration often thinks homework is a ban on grading homework. The policy would establish a more “level playing field” among students by putting “the emphasis of homework on practicing for assessments such as tests, projects and quizzes” and avoiding the possibility of some students ending up with higher course grades based on homework for which they got substantial help from their parents. 31

Some parents and teachers have loudly opposed the plan, however. Older students won’t study at all if they don’t get an immediate payback for it in the form of grades for completion of homework, said a high school teacher. 32

The private Hopkins School in New Haven, Conn., is also reconsidering its homework policies to ensure that only homework that really increases learning is assigned. “If five problems help students understand a concept, then don’t assign 15,” said Assistant Head of School John Roberts. 33

Testing the Tests

Schools that fail to meet NCLB goals could eventually face compulsory reorganization, mass firings and state or private takeover.

With NCLB testing only a few years old, its effects on students are still largely unknown. Some information is emerging, however, about how the tests are changing things in classrooms.

“Teachers aren’t all opposed to NCLB, but we saw a big problem with teacher morale” in a new large-scale study of teachers’ and administrators’ responses to high-stakes testing in California, Georgia and Pennsylvania, says Laura S. Hamilton, a senior behavioral scientist at the Rand Corporation, a Palo Alto, Calif., research organization. “Majorities of teachers were telling us that NCLB was badly affecting teacher morale,” but majorities “also said it was having a good effect on coordination in the schools.”

Teachers are particularly bugged by NCLB’s measurement standard for schools — called Average Yearly Progress, or AYP — because it “doesn’t reflect what they’re really doing,” Hamilton says. The AYP compares, for example, achievement by this year’s fourth-grade class to last year’s, and many teachers and education analysts point out that the two classes may not be comparable.

In addition, many teachers don’t feel confident that current tests actually match their states’ learning standards or curricula, and virtually all believe NCLB’s ultimate goal — having 100 percent of students test at “proficient” levels by 2014 — is unrealistic, says Hamilton. For some, that dissatisfaction could lead to “dumbed-down” classrooms where teachers focus on test-taking strategies rather than important content, she says. “When people perceive goals as impossible to attain, they’ll tend to take shortcuts,” such as “teaching to the test,” she says.

Many schools, especially in low-income areas, “can’t possibly meet next year’s goals,” let alone the 2014 goal, says Hamilton. 34 That may create a feeling of defeat, even in teachers who believe they’ve made real progress, she says. “The teachers say, I’ve moved these kids up significantly, but it doesn’t show up in the results.”

The Rand study finds that “teachers are spending a fair amount of time with practice tests, test-taking strategies and problems that mirror what will be on the tests,” says Hamilton. In addition, “a lot of states now have benchmarking tests,” which don’t carry any stakes but help teachers see how well students are doing and enable
them to readjust their teaching accordingly — “four to six times a year,” Hamilton says. “All these things together have classrooms very focused on tests.”

In addition, today’s test questions, state learning standards and textbooks “don’t always fit with one another,” says Hamilton.

That’s a problem, because it means that tests — not decisions about what content students should master — “are driving what we teach,” says Sharon L. Nichols, an assistant professor of educational psychology at the University of Texas, San Antonio.

“The more you specifically practice a skill in a single situation” — such as for a standardized test — “the less transferable your learning is,” Nichols says. For example, “when teachers teach formulaic writing because they know that kind of written answer will succeed on a certain test,” they are not actually preparing students to write in the real world, she explains.

High-stakes tests “are also dictating the pace and the timing of what’s taught,” sometimes in ways that make a hash of the curriculum, says Nichols. For example, middle school teachers she surveyed complained about tests that include Civil War information the state curriculum dictates should be taught in the weeks after the test. “So they have to roar through it” to cover it in time for the exam.

Too much focus on tests can damage students’ motivation, Nichols says. Many who fear they won’t pass give up too easily, while others who are confident of passing lose interest in school because the tests “don’t challenge them and the test has become the only thing that matters in the classroom.”

Meanwhile, beyond homework and standardized testing, an era of ultracompetitiveness has overtaken students in many affluent neighborhoods, says Stanford’s Pope.

The belief among many parents and teachers that only superkids who graduate from Harvard are truly successful takes a devastating toll on some students, Pope maintains. Nevertheless, she says there’s a growing awareness among psychologists, college admissions officers and school administrators that current ideas about success are skewed.

Some colleges now focus less on test scores and more on effort and other factors in admissions decisions, says Pope. “That gives me some hope” that criteria for success are beginning to broaden and that pressure may ease for teenagers, Pope says.

Pope and some of her Stanford colleagues are launching a campaign to alert families and schools to the dangers of what she calls overcompetitiveness, which she says is perpetuated by myths and ignorance.

For example, while many suburban parents focus on a handful of the best-known colleges for their children, “in fact there are about 200 different schools” whose graduates attain the same levels of career achievement, Pope says. “Two hundred vs. 10. That’s a much healthier message to send.”

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**OUTLOOK**

**Learning to Teach**

One thing is certain for the future: The pressure on schools to provide more academics to more students is here to stay.

Education systems around the world are inexorably moving to require more years of strictly academic education for more students than ever before, says Baker of Penn State. The “slow
death of vocationalism” that sees virtually all students pursuing a math-and-literacy-heavy curriculum through high school is occurring globally and in the United States, he says.

Exactly what that implies for homework and testing, however, is unclear. Much is still unknown about how particular homework practices and testing policies affect students and about how to teach academic subjects successfully to everyone.

For her part, anti-homework activist Bennett sees the tide turning against homework, especially for younger children.

“I’ve noticed that many people take it as a given now that homework and achievement don’t go together,” Bennett says. Ten years ago, when she first became alarmed about homework’s ill effects on her own family, Bennett says most other parents in her children’s schools simply assumed that more homework translated to greater academic success.

Today, more people question that assumption, and the questioning is beginning to pay off in revised homework policies as well as more scrutiny of other school traditions that reinforce overcompetitive attitudes, Bennett says. She expects that trend to continue.

“A school in Menlo Park [Calif.] just got rid of homework, and one in Ohio recently dropped grades altogether,” Bennett says. “In a school in Alberta, Canada, the principal asked the teachers to read up on homework over the summer, and when school started in the fall they changed their policies,” greatly limiting the homework assigned, Bennett says.

Many education researchers say the demands of educating all students to a high academic standard will require understanding much more about how students learn. Some also say Americans may have to make a tough shift to a more academics-friendly society to see real results.

“If you believe in very high academic achievement, you can’t be satisfied” with the current U.S. showing on international tests, says Brookings’ Loveless. To improve U.S. standings, increased study time on academic subjects would be required, as well as increased attention to academics and learning by families and the society at large, he says. But “even though everybody wants the nation’s schools to be better, there’s not a huge push” for that kind of cultural change.

Furthermore, just requiring kids to spend more time studying, in school or out, won’t help all that much, Loveless says. Research shows that “you can add an hour to the school day” and “get a small gain in achievement but not nearly as much as you’d expect,” he says. “The missing element is — productivity,” says Loveless. Extra hours must be spent addressing individual children’s specific academic deficiencies to pay off, he says.

In coming years, cognitive science will help in that direction, says Bror Saxberg, chief learning officer at K12, a Herndon, Va., firm that develops online learning products.

The current need is to find out how people learn and then figure out what interventions can help learners past identifiable stumbling blocks, says Saxberg. Research to tackle those questions is just beginning, he says. “As we go forward and develop more sophistication about what goes wrong” when people get stuck in learning a skill, “we’ll be able to provide teachers with a better set of tools” to diagnose individual problems and remedy them.

Notes

6 Hofferth and Sandberg, op. cit.
8 For background, see Marcia Clemmitt, “AP and IB Programs,” CQ Researcher, March 3, 2006, pp. 193-216.

About the Author

Staff writer Marcia Clemmitt is a veteran social-policy reporter who previously served as editor in chief of Medicine & Health and staff writer for The Scientist. She has also been a high-school math and physics teacher. She holds a liberal arts and sciences degree from St. John’s College, Annapolis, and a master’s degree in English from Georgetown University. Her recent reports include “Climate Change,” “Health Care Costs,” “Cyber Socializing” and “Prison Health Care.”
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All Kinds of Minds, 24-32 Union Square East, 6th Floor, Suite A, New York, NY 10003; (888) 956-4637; www.allkindsofminds.org. A nonprofit institute that educates teachers and parents about neurodevelopmental differences that create different learning challenges for students.

AVID, AVID Center, 5120 Shoreham Place, Suite 120, San Diego, CA 92122; (858) 623-2845; www.avidcenter.org. A nonprofit group that establishes in-school support programs to help students who might otherwise not attend college.

Center for Public Education, 1690 Duke St., Alexandria, VA 22314; (703) 838-6722; www.centerforpubliceducation.org. Supported by the National School Boards Foundation, the center provides information on homework and other education issues.

Education Next, Hoover Institution, Stanford University; www.educationnext.org. An online quarterly journal on education reform produced by a conservative think tank.

FairTest (National Center for Open and Fair Testing), 342 Broadway, Cambridge, MA 02139; (617) 864-4810; www.fairtest.org. Campaigns against what it calls the abuses and flaws of standardized testing.

National Education Association, 1201 16th St., N.W., Washington, DC 20036-3290; (202) 833-4000; www.nea.org/index.html. The nation’s largest teachers’ union posts education articles and studies on its Web site.

Parenting Bookmark, www.parentingbookmark.com/index.html. Posts articles by psychologists and education experts on topics such as children’s stress and choosing a preschool.

The Preteen Alliance, 400 Hamilton Ave., Suite 340, Palo Alto, CA 94301; (650) 497-8365; http://forum.lpfch.org/index.html?r=Bz7aa01d1QQ. A Web site sponsored by the Lucile Packard Foundation for Children’s Health that posts articles and hosts discussions about adolescent issues, including school-related stress.

Books


Professors of education at Pennsylvania State University compare education trends gleaned from a four-year investigation of K-12 education in 47 countries, including homework, student achievement in math and science, private tutoring, teacher workloads and curriculum development.


Two organizers of parental campaigns to change homework policies at their children’s schools explain why they believe homework is harmful and what steps families can take to get schools to adopt better homework strategies.


A political economist and former professor at the College of the Atlantic in Bangor, Maine, argues that unstructured play is more important for children’s learning than homework and that anti-homework activism is part of a larger cultural debate on the place of work in society.


A Duke University professor of psychology and neuroscience examines academic research on homework and explains how it could be put into practice by teachers.


A professor of history at Temple University traces 150 years of ongoing struggle between parents and schools over who should control children’s lives in and out of the classroom.


An education writer and critic argues that homework is detrimental to family life and discusses a century of research questioning homework’s value as an educational tool.


A professor of pediatrics at the University of North Carolina Medical School explains how differing brain structures cause children to struggle with different learning tasks and outlines strategies to help.


A lecturer at the Stanford University School of Education argues that American society’s overcompetitive view of education harms students.


A longtime teacher of high school Latin argues that current education trends put the onus for success on teachers and ask for far too little effort from students.

Articles


Kindergarteners are filling out the worksheets that first-graders used to do, and tutoring companies sell academic programs for preschoolers. Nevertheless, experts are divided on whether academic acceleration is too much too soon.


Public and private schools in some affluent neighborhoods are changing their homework policies, cutting down on the amounts of homework assigned and asking teachers to ensure that each assignment is worth students’ time.

Reports and Studies


An education researcher at the Rand think tank and a Carnegie Mellon University history professor analyze survey data and conclude American high school students in the 1960s had substantially more homework than subsequent students.


Analysts from a nonprofit research organization survey school teachers and administrators about pressure and other consequences of high-stakes standardized tests.


The latest edition of this annual analysis examines current student-achievement scores and how student attitudes like confidence and enjoyment of classes affect learning.
Homework

“Less Homework, More Trouble,” editorial, USA Today, July 3, 2006, p. 8A.

Ample evidence suggests lack of homework leaves American students less prepared to compete in the global economy.


Sean Gordon-Loebl, a 15-year-old student at prestigious Stuyvesant High School in Manhattan, has convinced school officials to restrict homework during vacations.


A growing minority of teachers and experts wants to end homework as it currently exists, while some are out to abolish it altogether.


Elementary school students do not get any real benefit from doing homework, according to the country’s best-regarded researcher on the subject.


New research is showing that an increase in dull and repetitive homework has little education value.

International Competition


A closer look at American kids’ performance suggests that U.S. education may not be falling behind the rest of the world.


American high school students are taking harder courses and scoring higher but learning less.

Stress and Students


The dean of admissions at MIT speaks out about the stresses that the college-admissions process places on teens.

Jayson, Sharon, “Gen Nexters Have their Hands Full: Over-

achievement Plus a Drive to Succeed at a Young Age Makes for Stressful Equation,” USA Today, Aug. 21, 2006, p. D1.

Increased competition and teenagers’ drive to succeed in school are ratcheting up the pressure on many high-schoolers.


Some students are skipping lunch to take classes, hoping to impress colleges by taking more challenging academic courses.


Some schools are cutting back on tests and homework.

Testing


Education Secretary Margaret Spellings is recommending more standardized tests for high schools, but students already have to take too many exams.


More and more California schools are choosing oral presentations over standardized tests in assessing performance.


In Florida, which is at the forefront of the testing and accountability movement, the backlash against standardized tests has become broader and more politically potent.

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