

TELL YOUR CHILDREN -- IT *PAYS* TO STUDY HARD!

Raising Achievement Takes Effort from Students, Too

There's a lot of activity going on today to improve student achievement. States have set high standards for what students should know and be able to do in academic subjects like math, science, English, and history. To help students meet these standards, school superintendents and principals are reorganizing their staffs, using resources in different ways, and changing how time is used during the school day. Teachers are participating in intensive training about effective teaching methods and are working hard to make sure all students achieve at the expected levels. States are keeping track of which schools don't do well on state tests. These schools will have to make some dramatic changes.

But there's another *very* critical part of raising student achievement that doesn't always get the attention it should -- namely, how much effort the students themselves make. Learning can't take place if students don't work at it.

Unfortunately, too many kids don't see the connection between studying hard in school and succeeding in adult life. According to one study of 20,000 teenagers, about 40% are just going through the motions in school. These students put little energy into their classes or assignments and do only the minimum necessary to stay out of trouble. Many students face strong pressure from their peers *not* to succeed academically. One in five students say their friends make fun of kids who try to do well. More than half say they never discuss their schoolwork with their friends (Steinberg, 1996).

As parents, you're in the best position to help your children understand that studying hard brings payoffs that may not be obvious right now but are very worthwhile later. This paper summarizes what research has found about the benefits of studying hard. It suggests some things you can do to encourage your children to make the extra effort. The last part of this paper is a short summary aimed at students about why it pays to study hard.

Facts to Share with Your Children about the Benefits of Studying Hard

Here are some facts your children should be aware of by the time they enter middle school. This is when they must start making critical decisions about courses that will affect their futures.

The more years of education your children complete, the more money they'll probably earn as adults. And the better their chances will be of getting and keeping a good job.

- Adults who finish high school typically earn \$6,300 more per year than high school dropouts. Getting a four-year college degree increases earnings even more. Adults with a bachelor's degree earn \$14,100 more per year, on average, than those with just a high school diploma -- enough of a difference to buy a late-model used car. Completing a master's degree, doctorate, or professional degree (such as a law or medical degree) can really boost a person's income. Here are the 1997 median annual earnings for full-time workers age 25 and over (Bureau of Labor Statistics (BLS), 1999):

Less than high school diploma	\$19,700
High school graduate	\$26,000
Some college, no degree	\$30,400
Bachelor's degree	\$40,100
Master's degree	\$50,000
Doctorate	\$62,400
Professional degree	\$71,700

- Unemployment is highest among high school dropouts and declines with additional years of schooling. In 1998, the unemployment rate was 7% among high school dropouts age 25 and over -- much greater than the rates of 4% for high school graduates and 2% for college graduates (BLS, 1999).

Your children will need a good education to compete in today's—and tomorrow's—global job market.

- More jobs today require at least some education beyond high school. In 1959, only 20% of workers in their prime working years (between ages 30 and 59) needed more than a high school education. Today that figure is 56% (Carnevale, 1998).
- Most new jobs in fast-growing sectors of the economy require some postsecondary education. More than two-thirds of the jobs in the health care sector, the education sector, and the office sector (which includes sales, marketing, management, accounting, editorial, legal, and other fields) call for some education beyond high school. These three sectors not only are growing fast, but also employ sizable numbers of people. In high-

tech fields, which are growing fast but still employ relatively small numbers of workers, more than 80% of the jobs require some higher education (Carnevale, 1998).

- Even for jobs that don't require postsecondary education, employers want workers with good math, science, reading, writing, and thinking skills. Young people with stronger skills are more likely to be hired and trained for higher-paying, more interesting jobs -- anything from travel agent to computer repairer to teacher assistant -- while those who lack good basic skills may have trouble moving beyond low-wage service or laboring jobs (U.S. Department of Education (USED), "Mathematics," 1997).
- Companies that can't find well-educated workers at home can move their operations overseas. So American graduates are actually competing for jobs with young people from other countries. And the competition is stiff. Twelfth-graders in many other countries outperformed U.S. 12th graders on an international math and science test (National Center for Education Statistics (NCES), *Pursuing Excellence*, 1998). Often students in other countries must pass difficult tests before they can graduate, so their high school diploma means they've learned a lot.

Your children's future depends not just on whether they have a diploma or degree, but also on how much they actually *learned* in school or college.

- According to a 1992 study of adult literacy, adults with higher literacy and number skills earn more money than those with the same level of education but lower skills. This

national study defined literacy broadly to include three types of skills -- using written texts, working with everyday documents, and using numbers to do common tasks. In each of the three areas, adults were rated according to five levels of proficiency, from the highest level 5 to the lowest level 1 (NCES, "Labor market outcomes," 1996).

- College graduates who scored at level 5 in using written texts earned \$796 per week in 1992, compared with earnings of \$504 for those at level 2. College graduates with the highest levels of literacy were much more likely to have jobs as managers, professionals, or technicians, while those with low literacy skills were more likely to take jobs that usually go to high school graduates (Educational Testing Service, 1993; Pryor & Schaffer, 1997).
- Among high school graduates with no college, those with higher levels of literacy and number skills earned more money annually than those with lower levels of literacy. For example, male high school graduates who scored at level 4 in using written texts earned \$26,825 per year, compared with \$16,417 for those at level 1. Female high school graduates at level 4 earned \$14,686 per year, compared with \$10,510 for those at level 1 (NCES, "Labor," 1996).
- Test scores from the Armed Services Vocational Aptitude Battery (ASVAB) also show that it pays to study hard in high school, even if you are headed straight for work. But it generally takes until age 22 for the income benefits to show up. After that age, high school graduates who scored in the top one-fourth of test takers in the math, science, and paragraph comprehension sections of the ASVAB earned more money than those who

scored in the second one-fourth. And those in the second one-fourth earned more than those in the third or bottom one-fourth (Barton, 1999).

Taking challenging courses is a good idea whether your children are headed for college, technical training, or work.

- Many students who hope to go to college don't realize how important it is to start taking courses like algebra and a foreign language in the 8th grade. Students who take these courses in middle school can complete more advanced courses in high school, such as trigonometry, calculus, chemistry, physics, and higher-level foreign language courses -- the kinds of courses most colleges want students to have. And most students who take algebra in 8th grade do go on to college (Atanda, 1999).
- Taking challenging courses in high school is a better predictor of whether a young person will *graduate* from a four-year college than either high school grades or test scores. For example, students who take four years of English, two years of laboratory science, math beyond the algebra 2 level, and two years of a foreign language in high school have a much greater chance of completing a bachelor's degree than those who take a less intensive curriculum (Adelman, 1999).
- Many two-year colleges or technical programs require students who want a degree to understand intermediate algebra. Students who want to pursue such popular programs as

business, nursing, or computer science must take even more rigorous math courses (USED, "Mathematics," 1997).

- High school graduates with a strong math and science background earn more than those with lower achievement. By age 30, high school graduates who didn't attend college but scored in the top one-fourth on the math section of the ASVAB earned 38% more per hour, on average, than those who scored in the bottom one-fourth. They were also far less likely to be unemployed. As technology becomes more common in fields like auto mechanics, health care, and office occupations, a math and science background will count for even more in the workplace (USED, "Mathematics," 1997).
- Challenging courses are not just for the top students. The percentage of high school students choosing a rigorous curriculum has gone up considerably in recent years -- from only 14% in 1982 to more than 50% in 1994 (Forgione, 1997). These students are proving they can reach high standards when they are taught at high levels and when they put forth some effort.

Knowledge can improve your children's quality of life.

- Learning brings benefits that can't be measured in dollars and cents. People who are well-educated are better prepared to cope with the demands of the Information Age. They can make informed decisions about issues in their communities, their nation, and the world. They can discuss things intelligently and can solve complex problems at work or

at home. They can appreciate the arts and explore a wide range of interests. They can help others by sharing their knowledge and skills. And they will be better teachers of their own children.

Young people who study hard learn more.

- Time spent studying makes a difference. For example, students who said they read more pages every day had higher average scores on a national reading test than those who read fewer pages. On national tests of U.S. history and geography, the high-scoring students were more likely than the low-scorers to spend at least an hour a day on homework (National Assessment of Educational Progress, *NAEP 1998 Reading*, 1999; NCES, “Good Study Habits,” 1997).
- Success in any field depends on hard work. Ask a successful pilot, software designer, screenwriter, stockbroker, or veterinarian. All will probably tell you they had to put forth a lot of effort, and they didn't give up if they didn't get something the first time. School is the same way. Learning doesn't just come naturally. If you make an effort, stick to your goals, and give it time, you'll do better.

What Parents and Others Can Do To Help

As parents, you can strongly influence how much effort your children put into school. Here are some things you can do to encourage them to study hard.

Encourage your children to take challenging courses in middle school and high school.

- Seventy-nine percent of students in grades 9 through 11 said they had decided by themselves which mathematics courses to take (USED, “Mathematics,” 1997). This statistic suggests some parents don't recognize how important it is to guide their children's decisions. Start early by encouraging your children to think about and talk to you about their future education and career goals. Help them map out which courses they'll have to take to get there. If you aren't sure yourself, ask a school counselor or teacher. Make sure your child understands why it's worthwhile to take courses like algebra in middle school. If your school district doesn't offer the advanced courses your child will need, work with other parents and teachers to try to get the district to revise its priorities.
- Society expects schools to fill a variety of needs, including many non-academic ones. When asked to rate which topics definitely belonged in state curriculum standards, adults gave higher rankings to health education (such as teaching about disease prevention) and work skills (such as cultivating a work ethic) than to academic standards in language arts, math, and science. They gave the lowest rankings to standards in history, geography, foreign language, and fine arts (Mid-Continent Regional Educational Laboratory, 1999). You can help to reverse this trend by supporting school administrators and teachers who want to increase time for academic standards.

Make clear that school is the number one priority for young people.

- It's normal for your child to want to play sports and participate in after-school activities. But an overload of after-school activities can take time away from studies. Make sure academics aren't lost in the shuffle.
- Limit the number of hours students work, if they have to work at all, and make sure it doesn't cut into their studies. Fifty-eight percent of U.S. teens have a paying job, far more than in most other industrialized countries. Students who work more than 20 hours a week generally earn lower grades, spend less time on homework, cut class more, and cheat more often (Steinberg, 1996). While teenagers can learn values like responsibility from after-school jobs, any benefits must be balanced against the long-term costs of falling behind in their studies. This is especially important if teenagers are working mostly to buy things they don't really need.
- Keep close tabs on social activities and home responsibilities that take time away from learning. Compared with young people in many other countries, American teenagers spend more time dating, caring for younger siblings, and doing household chores, and less time reading for pleasure (Steinberg, 1996).

Look at your own beliefs about achievement and the messages you send.

- Make clear that effort counts more than inborn ability as the key to success in school. When we say such things as, "I just don't have a head for math," or "He's a born artist," we may signal to our children that it's not worth trying things that don't come easily. In one major study, American mothers gave much lower ratings to effort and higher ratings to ability than mothers in Japan or Taiwan did. Not surprisingly, American students also placed more emphasis on factors related to ability than Japanese and Taiwanese students did (Stevenson & Stigler, 1992).
- Hold high expectations. American parents tend to be more accepting of lower achievement than parents in some other countries. For example, 40% of American mothers report being "very satisfied" with their children's current academic performance, compared with only 5% of Japanese and Chinese mothers (Stevenson & Stigler, 1992).
- Support teachers who maintain high standards. Some parents send inconsistent messages about academic achievement when they pressure teachers to give their children higher grades than they deserve, or make disparaging remarks about teachers, or blame tests for being too hard. One-third of teachers surveyed said they felt pressure from parents to raise students' grades or reduce the amount and difficulty of homework they assigned (American Federation of Teachers, 1994).

Encourage and supervise your children's studies at home.

- Make space and time at home for serious study, and monitor your children's homework. Students who said they had home discussions about their studies at least once a week had higher average scores on a national reading test than those who had these discussions less often (NAEP, *Reading*, 1999). Helping your children doesn't mean doing their homework for them. Your children will learn more if you offer guidance instead of answers, discuss things they don't understand, and ask them to think about why the teacher assigned work that seems tedious or silly to them. If the homework doesn't make sense to you, ask the teacher about it.

Become involved with your teenager's school activities.

- High school students do better when their parents take an active interest in their studies and attend school activities. Unfortunately, many parents have dropped off in participation by the time their children reach high school. Only one-fifth of parents of high school students consistently attend school activities, and more than 40% never do (Steinberg, 1996).

Help to create a society that values academic achievement.

- Teenagers care a lot about what their peers think, and it's hard when their friends tease people who study. But friends aren't the only problem. Negative messages about school

achievement pop up on television, and in movies, music, and magazines. You can give your children information, confidence, and deep values that will help them stand up to outside pressure. You can also enlist support from other people your children admire, such as a college student, a successful coworker, or another family member.

- All of us can help raise student achievement, whether or not we have children in school. If you're a business person, you can pay more attention to student transcripts when you hire young workers. If you're an educator, you can help your friends and neighbors understand why certain courses are important and why high standards are necessary. If you belong to a community group, church, or other organization, you can set up programs that recognize and reward high-achieving young people. If you're a college alumnus, faculty member, or administrator you can urge your institution to give greater weight to the kinds of courses taken, rather than just grades or test scores. The whole nation benefits when students learn more and become more productive citizens.

Adolescence is a critical time when young people are defining who they are and where they are going. Parents are a major influence on their children's attitudes and choices, but it takes more than just occasional words of advice to counteract negative messages from peers and others. Parents can motivate their children by participating in school and home learning activities, by helping to organize their children's activities so that school comes first, and by modeling a positive attitude about academic achievement in their own actions and words.

A MESSAGE TO STUDENTS -- IT *PAYS* TO STUDY HARD!

Working hard in school brings big payoffs. Friends who say otherwise don't know what they're talking about. The person who will have the most impact on your future is *you*! Here are some reasons why you should study hard right now.

If you complete more years of education, you'll earn more money and be better prepared for a career that interests you.

If you graduate from high school, you'll probably earn at least \$6,000 more per year than a high school dropout, and you'll be less likely to be unemployed. If you get a four-year college degree, you'll probably earn at least \$14,000 more per year than people who have just a high school diploma, and at least \$20,000 more than a high school dropout -- enough extra income to make a real difference in how you live. If you go on to graduate school, or to law, business, or medical school, you'll probably make enough to have a comfortable lifestyle and save money, too.

Most new jobs require some education beyond high school. For example, more than two-thirds of the many new jobs being created in health care, education, and office occupations require some education beyond high school. For jobs that don't require college, employers still want workers with strong academic skills and will go overseas to find them if they have to.

If you learn a lot while you're in high school or college, you'll probably earn more money than someone with the same diploma or degree who didn't learn as much.

College graduates who are very good at reading texts, using everyday documents, and working with numbers earn significantly more than college graduates who don't have these kinds of literacy skills. This is also true for high school graduates.

If you're a college graduate with strong literacy and number skills, you'll be more qualified to be a manager, professional, or technical person. Otherwise you may have to compete with high school graduates for lower-paying, less challenging jobs. If you're a high school graduate with strong skills, you'll be more likely to be hired for interesting jobs that pay above minimum wage. But if your academic skills are low, you may be stuck in low-wage service or laboring jobs.

If you take challenging courses in middle and high school, you'll be more likely to attend college and complete a degree. If you're going directly from high school to work, you'll be better qualified for a good job with opportunities for raises and promotions.

If you begin taking courses like algebra and a foreign language in the 8th grade, you'll be better prepared for college by the time you graduate from high school. If you're headed for the workplace, taking challenging math and science courses will help you to get a higher-paying job and to use technology effectively on the job. Don't shy away from these courses because you fear you won't get a high grade. Taking challenging courses in high school is a better predictor of whether you'll graduate from college than either your high school grades or your test scores.

References

- Adelman, Clifford, *Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment* (Washington, DC: U.S. Department of Education, 1999).
- American Federation of Teachers, *Valuable Views* (Washington, DC: American Federation of Teachers, 1994).
- Atanda, Robert, "Do gatekeeper courses expand education options?," *Statistics in Brief*, NCES 1999-303 (Washington, DC: National Center for Education Statistics, 1999).
- Barton, Paul, "Learn more, earn more?," *ETS Policy Notes*, Summer 1999, 1-12.
- Bureau of Labor Statistics (BLS), "More education: Higher earnings, lower unemployment," *Occupational Outlook Quarterly*, Fall 1999, 40.
- Carnevale, Anthony, "A college degree is the key," *Crosstalk*, Spring 1998, pp. 10-11.
- Day, Jennifer, and Andrea Curry, "Educational attainment in the United States: March 1997," *Current Population Reports*, P20-505, May 1998.
- Educational Testing Service, *Adult Literacy in America* (Washington, DC: U.S. Department of Education, 1993).
- Forgione, Pascal D., "Achievement in the United States: Are students performing better?," testimony before the Senate Budget Committee, Task Force on Elementary and Secondary Education, October 28, 1997.
- Mid-Continent Regional Educational Laboratory, "What Americans believe students should know," McREL, 1999 (available at www.mcrel.org/survey).
- National Assessment of Educational Progress (NAEP), *NAEP 1998 Reading Report Card for the Nation* (Washington, DC: U.S. Department of Education, 1999).
- National Center for Education Statistics (NCES), "Good study habits and academic performance: Findings from the NAEP 1994 U.S. history and geography assessments, *NAEP Facts*," August 1997.
- National Center for Education Statistics, "Labor market outcomes of literacy and education," *Indicator of the Month*, NCES 96-793, January 1996.

National Center for Education Statistics, *Pursuing Excellence: A Study of U.S. Twelfth-Grade Mathematics and Science Achievement in International Context* (Washington, DC: U.S. Department of Education, 1998).

Pryor, Frederick L., and David Schaffer, "Wages and the university educated: A paradox resolved," *Monthly Labor Review*, July 1997, 3-18.

Public Agenda, *Assignment Incomplete: The Unfinished Business of Education Reform* (New York, Public Agenda, 1995).

Steinberg, Laurence, *Beyond the Classroom: Why School Reform Has Failed and What Parents Need to Do* (New York: Touchstone, 1996).

Stevenson, Harold, and James W. Stigler, *The Learning Gap* (New York: Summit Books, 1992).

U.S. Department of Education (USED), "Mathematics equals opportunity," white paper prepared for Secretary of Education Richard W. Riley, October 20, 1997.