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ABSTRACT

This booklet, which is addressed to middle school and high school students, explains the financial rewards of education beyond high school and ways students can improve their chances of getting into college and finishing a degree. The booklet begins with a brief overview of available postsecondary institutions and degrees and the time typically required to complete each one. The average incomes of high school dropouts, high school graduates, individuals who have earned associate degrees, individuals who have earned bachelor degrees, and individuals with various postgraduate degrees are compared and considered from the standpoint of the types of lifestyles that can generally be supported by the various income levels. The types of courses that improve students' chances of getting into college and finishing a degree are discussed. Alternatives to a four-year college are listed along with the 1999 median annual wages for 14 careers that can be pursued with a two-year associate's degree or postsecondary technical training. The real monetary trade-offs involved in going to college versus going directly to work are explained. Factors such as lost wages, loan debt, the higher wages associated with postsecondary degrees, and the relatively higher growth rates characterizing jobs requiring higher education are considered. (MN)

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higher learning =
higher earnings

What you need to know
about college and careers

CE 082 627

This guide can help you make decisions about college and careers.

If you're a student in middle school or high school, you're making decisions that will affect the rest of your life — decisions about which courses to take and whether to aim for college in the future. Your parents, teachers, and counselors have probably told you how important it is to go to college. But you're probably still wondering: Is college really worth the time, effort, and money? How much education do I really need for the career I want? If I plan to go to college, what should I be doing right now to prepare? What should I do if I'm not sure about college?

You need to know the facts for yourself. This guide can help you (and your parents) make decisions about your education after high school. It contains up-to-date information about:

- ▶▶ How much more money you're likely to earn if you continue your education beyond high school.
- ▶▶ Which kinds of courses you should take in high school to improve your chances of getting into college and finishing a degree.
- ▶▶ What money tradeoffs are really involved in going to college vs. going directly to work.
- ▶▶ How a 2-year or 4-year college degree can put you on track for a career in a fast-growing field.

You can
"go to college"
in lots of
different
ways.

The traditional image of an 18-year-old heading off to an ivy-covered campus for 4 years to live in a dorm, frat house, or sorority doesn't really apply to most college students today.

- ▶▶ Most college students live at home or in apartments and drive to class.
- ▶▶ One-third of the students who attend college directly after high school go to a 2-year community college.
- ▶▶ People often think of a bachelor's degree (a B.A. or B.S.) as a 4-year degree. But the average student now takes 6 years to complete a bachelor's degree. Many students work part-time and go to college part-time. Others take time out from college to work, travel, or take care of family responsibilities.

Going to college today can mean attending a 4-year college or university, a 2-year community college, or a technical institute or trade school. It can mean working toward a bachelor's degree, an associate's degree (A.A.), or a certificate showing you've mastered the skills needed for a technical career. It can mean studying full-time or part-time, or living at school or commuting from home. It can even mean going to a community college to learn a new skill *after* you've gotten a degree and worked for a while.

To decide which option is right for you, first you have to think seriously about the kind of career you want. Many good careers that pay well don't require a bachelor's degree, but they do require formal education and preparation beyond high school. Your school counselor can help you find more information.



If you go to college, you'll probably earn more money and enjoy your work more.

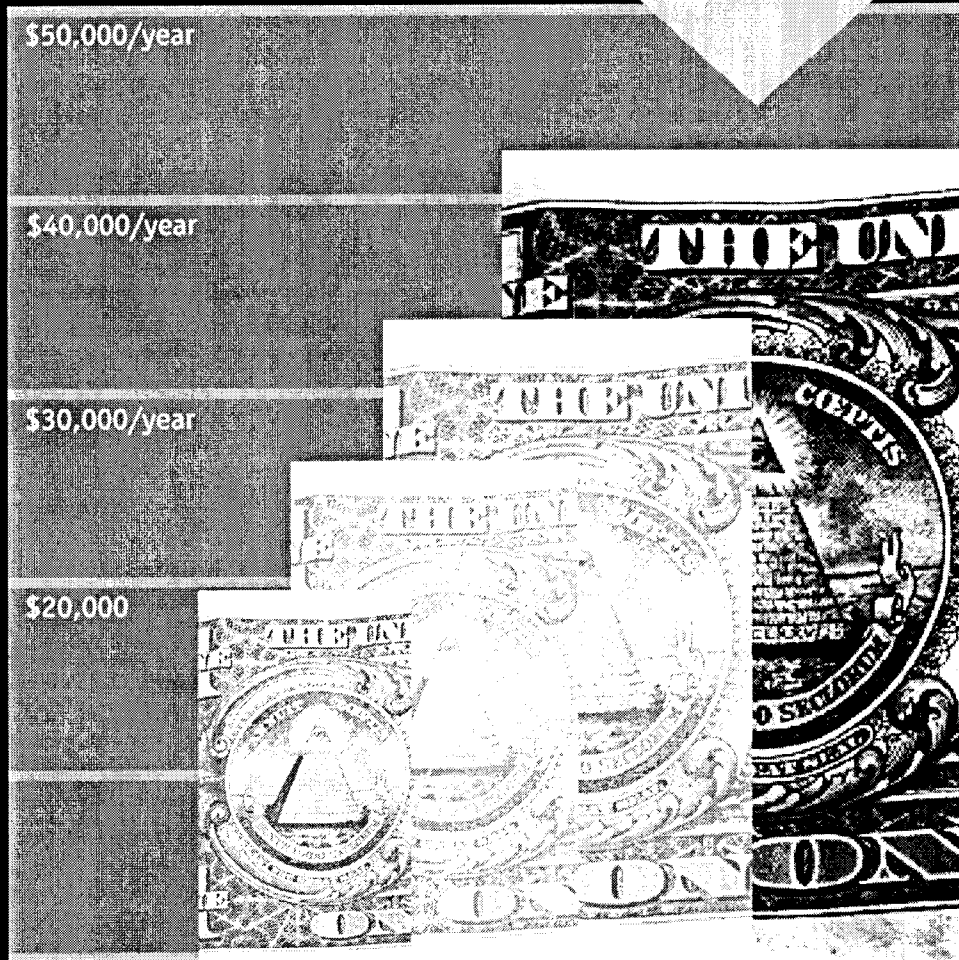
Earning and learning go hand-in-hand. The more years of schooling you complete, the higher your income is likely to be — and the less likely you are to be unemployed. The income gap between people with no college education and people with some college education has widened in recent years — mostly because wages for workers without college are going *down*.

Here's what a difference higher education makes:

- ▶▶ High school dropouts have the lowest earnings — about \$19,000 a year in 1999. This is just \$2,000 more than the poverty level for a family of 4.
- ▶▶ High school graduates with no additional education earn an average of \$26,200 a year.
- ▶▶ People with an associate's degree earn an average of \$33,400 a year — \$7,200 more than the average high school graduate and \$1,900 more than the average full-time worker aged 18 and over. The kind of lifestyle you could afford on this income would depend on where you lived, whether you were single or married, and whether you had children. If you lived somewhere other than a high-cost city, you could live in a decent apartment or house, own a car, and cover other basic expenses. You could raise a family, especially if your spouse worked too.
- ▶▶ People with a bachelor's degree earn an average of \$42,200 a year — \$16,000 more than the average high school graduate. At this income level, you would be earning more than the average *household* income in the U.S., so you might say it represents a middle-class living. In many parts of the country, you could own your own home and raise a family comfortably, especially if your spouse worked too.

More Education = More Money

1999 Median Earnings for Full-Time Workers



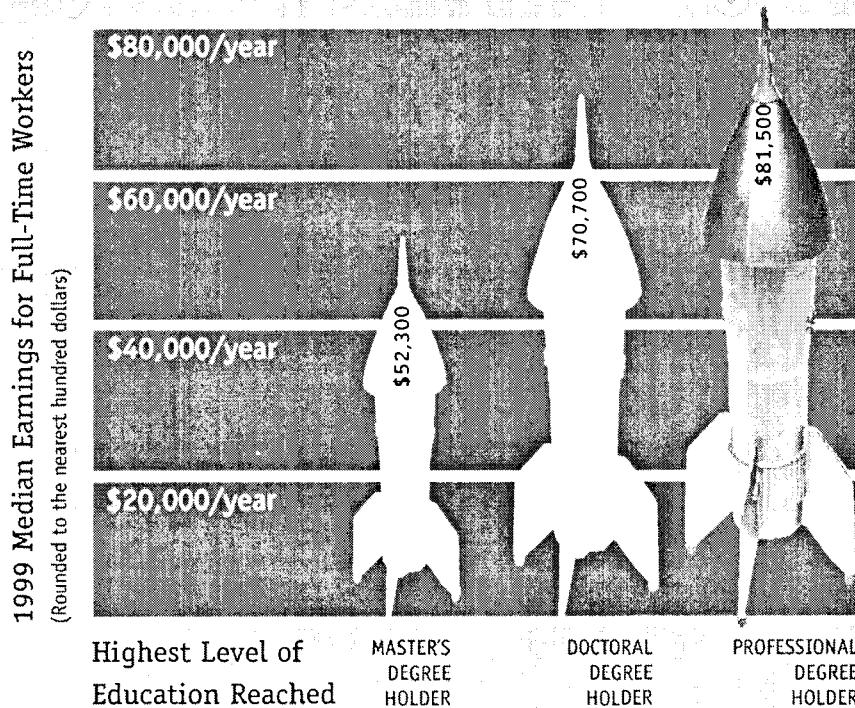
Highest Level of
Education Reached

A college degree is not a guarantee that you'll earn as much as these averages. Your income also depends on your occupation. If you become an engineer, a biologist, or an advertising manager, for example, you'll typically earn more than the average college graduate. Or you may decide to pursue a career that pays less but is rewarding in other ways. Teachers, social workers, ministers, and librarians, for instance, don't make as much as some other college graduates, but they often find great satisfaction in giving something back to the community. Or you might choose to be a park ranger because you enjoy being outdoors, or to be an artist because you like doing creative work.

Whether high-paying or not, the jobs available to a college graduate are often more interesting and challenging than those typically available to a high school graduate. Once you gain some work experience, a college education can increase your chances of getting a promotion or raise.

You can boost your earning power even more by completing a graduate school degree. On average, someone with a master's degree, a doctorate, or a professional degree (like a law degree) earns much more than someone with just a bachelor's degree.

Education Beyond College can Really Boost Your Earnings



Source: U.S. Department of Commerce, Bureau of the Census, *Educational Attainment in the United States: March 2000*, Table 9.

Taking challenging courses in high school will help you get into college and complete a degree.

Almost two-thirds of high school graduates go directly to college. But many of those who start college never finish a degree. College is demanding, and it can be frustrating if you're not prepared.

The best way to improve your chances of getting into college — and *finishing* college — is to take challenging courses in high school, in academic subjects like math, science, English, history, and a foreign language. These courses will provide you with the knowledge base, thinking skills, and study skills you'll need to succeed in college.

If you wait until you're a junior or senior to think about the courses you need, it might be too late. It pays to start planning when you're in middle school. It's especially important to take algebra by the 9th grade and geometry by the 10th grade, because these courses give you the foundation for harder courses in high school.

- ▶▶ A very high percentage (83%) of students who take algebra I and geometry in high school go on to college. Students who *don't* take algebra and geometry in high school are much less likely to go to college — only 36% of them do.
- ▶▶ Taking challenging courses in high school not only helps you get into college, but also increases your chances of *completing* college. In fact, the course work taken in high school is a better predictor of whether a student will complete a bachelor's degree than either high school grades or test scores. High school students who take 4 years of English, 2 years of laboratory science, math beyond the algebra II level, and 2 years of a foreign language have a much greater chance of completing a bachelor's degree than those who take less intensive high school courses.

If you're not sure about a 4-year college, think about attending a community college or technical institute.

Completing a bachelor's degree takes determination. If you don't think you're ready for a 4-year college program, or if you're unsure about making a long-term commitment, there are other smart choices you can make.

You should ask your school counselor whether a 4-year degree is necessary to meet your career goals. The best answer for you may be a community college or a reputable trade or technical school that offers a degree or skill certificate. A 2-year program after high school can prepare you for many well-paying or rewarding careers, including jobs in some of the fastest-growing fields. So even if you don't get a bachelor's degree, you can earn a good living doing work you enjoy.

Here are a few examples of careers you could enter with an associate's degree, a technical certificate, or postsecondary vocational training:

- ▶▶ **Computer support specialist:** Answer technical questions and resolve hardware and software problems for computer users.
- ▶▶ **Aircraft mechanic:** Diagnose, repair, and overhaul jet engines, hydraulic systems, and other major aircraft assemblies.
- ▶▶ **Teacher assistant:** Help children work on their reading skills or other learning activities, and help the teacher keep the classroom running smoothly.
- ▶▶ **Medical sonographer:** Operate an ultrasound scanner to produce images of internal organs that can help doctors diagnose problems.
- ▶▶ **Jeweler:** Design and craft jewelry from gold, silver or other metals.
- ▶▶ **Environmental science technician:** Do field tests and collect samples to investigate sources of pollution.
- ▶▶ **Camera operator:** Run a TV or video camera for broadcasts, advertisements, meetings, or other events.

CAREER	1999 MEDIAN ANNUAL WAGES
Computer Support Specialist	\$36,480
Legal Secretary	\$31,290
Environmental Science Technician	\$32,510
Dental Hygienist	\$47,200
Jeweler or Precious Stone and Metal Worker	\$23,270
Aircraft Mechanic and Service Technician	\$39,300
Diagnostic Medical Sonographer	\$42,330
Court Reporter	\$36,980
Teacher Assistant	\$16,420
Emergency Medical Technician or Paramedic	\$21,240
Heating, Air Conditioning, and Refrigeration Mechanic and Installer	\$30,160
Mechanical Drafter	\$36,120
Physical Therapy Assistant	\$33,070
Camera Operator for TV, Video, or Movies	\$24,830

Source: U.S. Department of Labor, *1999 National Occupational Employment and Wage Estimates*; and *Occupational Outlook Handbook, 2000-01 Edition*.

To succeed in these careers, you need to be able to solve practical problems, adapt to new technologies, and use math, writing, reading, and speaking skills. So it helps to take challenging academic courses in high school — even if you're not aiming for a bachelor's degree.

A community college can also be a path to a 4-year degree. Many students start out at a community college to save costs or get a handle on college-level work. After a year or two, you can transfer to a 4-year college and pursue a bachelor's degree.

Pursuing a college degree involves some money tradeoffs, but the costs are usually worth it in the long run.

You've heard the expression, "No pain, no gain." College is a gain — no question. It can improve your finances, your intellect, and your social skills. So what's the painful part?

If you're aiming for an associate's or bachelor's degree, you'll be postponing some of the wages you would have earned if you'd taken a job straight out of high school.

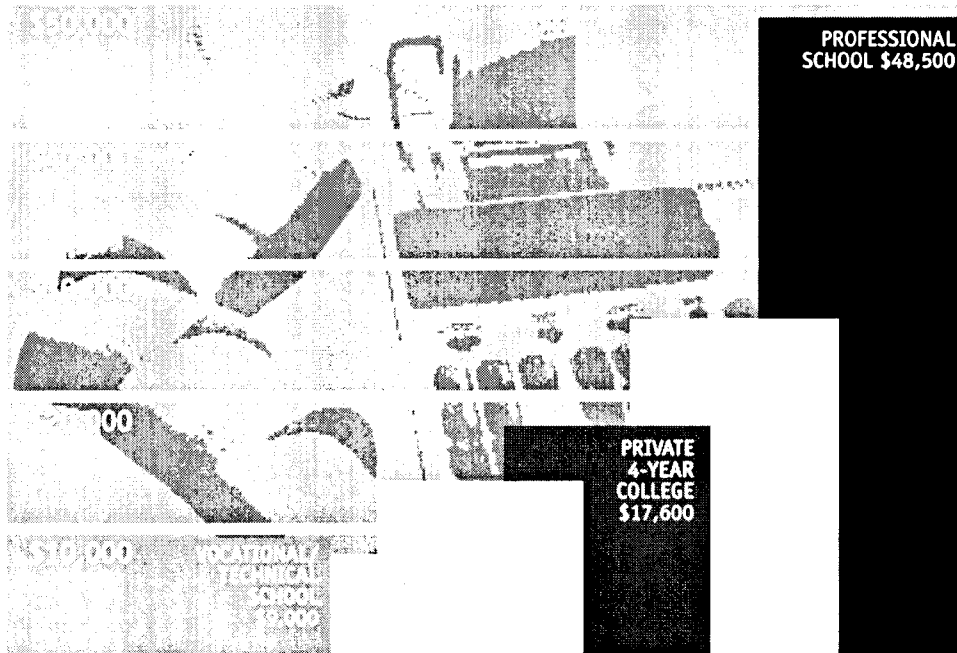
- ▶▶ A full-time student who takes 4 years to finish a bachelor's degree gives up about \$41,800, on average, in wages he or she would have earned from a full-time job.
- ▶▶ A full-time student who takes 6 years to earn a bachelor's degree gives up an average of about \$72,400 in wages.

And then you have to factor in the costs of college, like tuition, fees, and room and board. These costs average about \$1,300 a year at a community college, \$8,300 at a public 4-year college, and \$20,800 at a private 4-year college.

You may have to take out student loans to pay for college. After you leave college, you must pay off these loans, with interest, even if you didn't complete your degree.

- ▶▶ Students leave a public 4-year college with an average loan debt of \$13,200. If you go to a private 4-year college, your average loan debt will be higher.
- ▶▶ Students leave a 2-year community college with an average loan debt of \$7,700.

Average Federal Student Loan Debt 1997

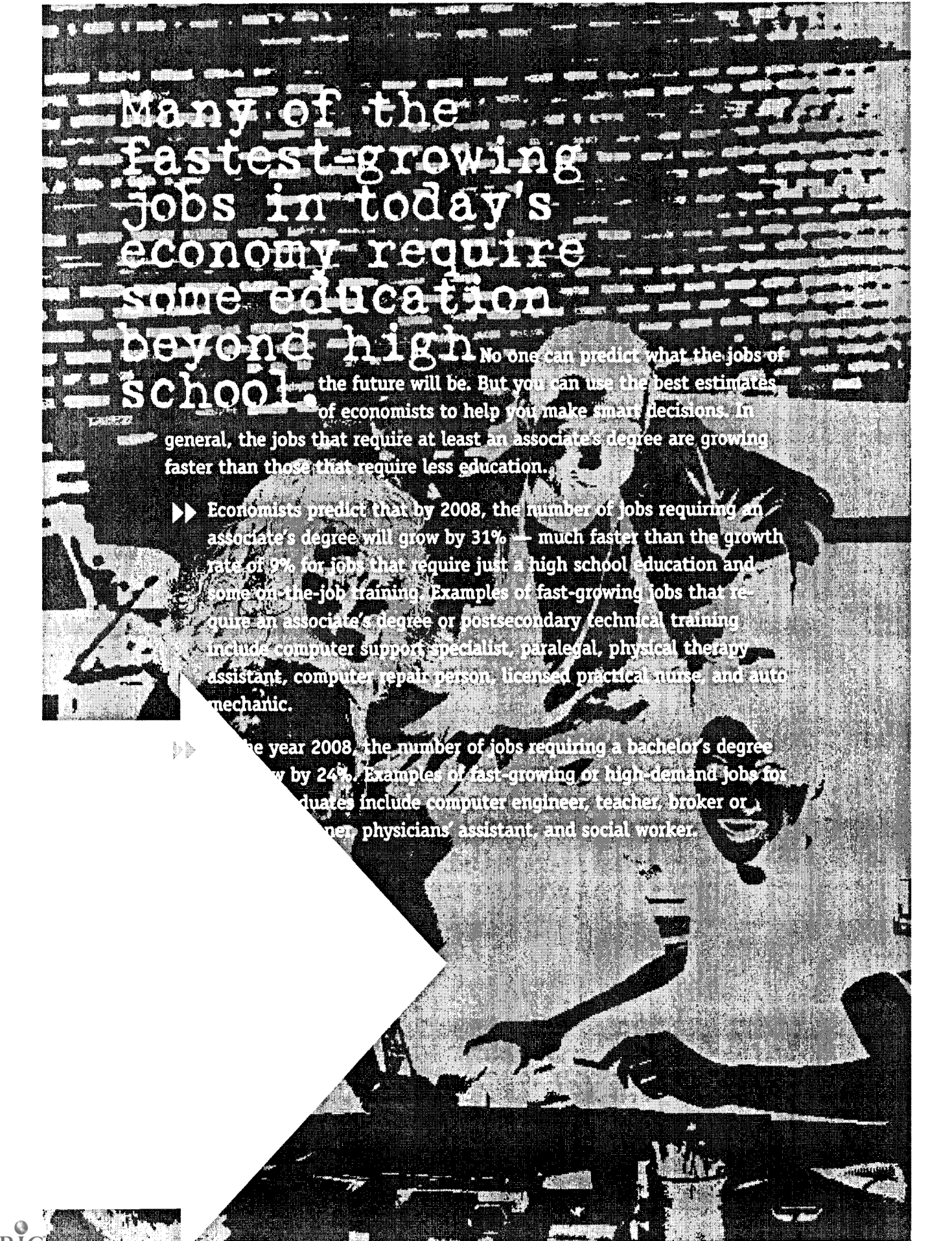


Source: Institute for Higher Education Policy, Sallie Mae Education Institute, The Education Resources Institute, *Student Loan Debt: Problems and Prospects*, 1998.

Note: Debt amounts for graduate and professional schools also include amount for undergraduate debt.

Between lost wages and loan debt, it may sound like you're sacrificing a lot of money to go to college. But let's do the math. If you earn \$16,000 more per year with a bachelor's degree than you would with just a high school diploma, you can make up for those "lost" wages of \$40,000 in less than 3 years.

Student loans also sound like a major burden. But these loans are set up so you can take several years to pay them back, with low monthly payments. The extra money you'll typically earn with a college degree should be more than enough to cover the payments. And once you've paid back the loans, you'll continue to make more than if you hadn't gone to college — which just proves the old saying that college is an investment in your future.



Many of the fastest-growing jobs in today's economy require some education beyond high school.

No one can predict what the jobs of the future will be. But you can use the best estimates of economists to help you make smart decisions. In general, the jobs that require at least an associate's degree are growing faster than those that require less education.

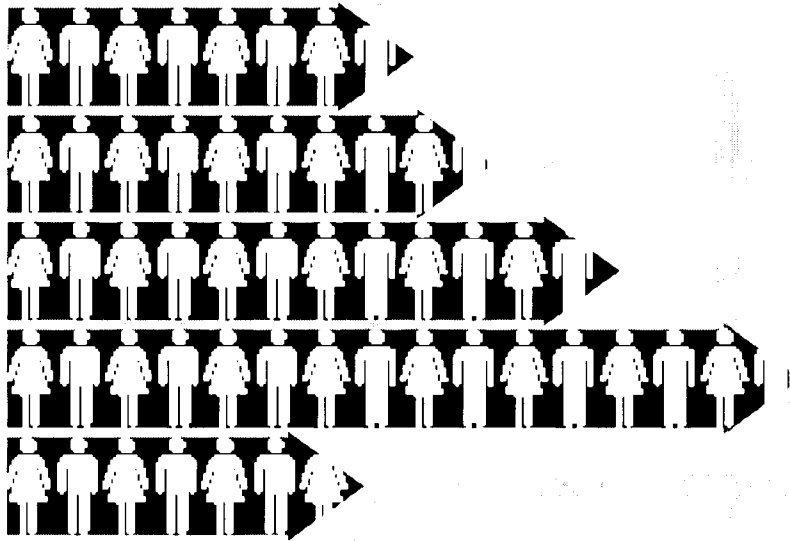
▶▶ Economists predict that by 2008, the number of jobs requiring an associate's degree will grow by 31% — much faster than the growth rate of 9% for jobs that require just a high school education and some on-the-job training. Examples of fast-growing jobs that require an associate's degree or postsecondary technical training include computer support specialist, paralegal, physical therapy assistant, computer repair person, licensed practical nurse, and auto mechanic.

▶▶ By the year 2008, the number of jobs requiring a bachelor's degree will grow by 24%. Examples of fast-growing or high-demand jobs for graduates include computer engineer, teacher, broker or salesperson, physician's assistant, and social worker.

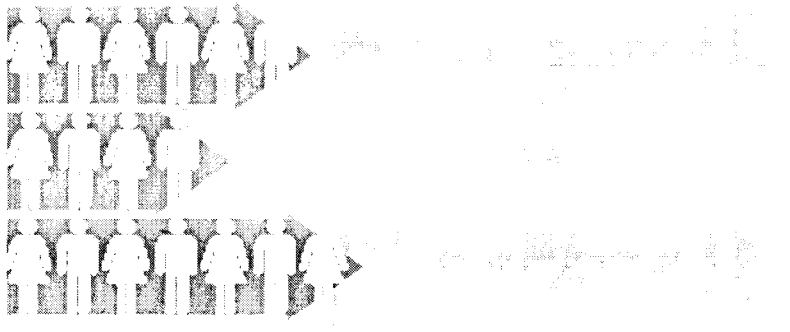
Jobs That Require Higher Education Are Growing Faster Than Those That Require Less Education

Average Projected Growth Rate for All Jobs, 1998-2008

Growth Rates for Jobs That Require Some Higher Education



Growth Rate for Jobs That Do Not Require Higher Education



Level of Education Required

Projected Rate of Increase in Number of Jobs

There will still be plenty of jobs in the near future for people with a high school diploma and some on-the-job training. In fact, the majority of jobs today do not require a higher education — for example, there is still a high demand for food service workers, sales clerks, and health care aides. But most of these jobs don't pay well and involve low-level skills. They offer few chances for steady pay raises or promotions. They may not provide essential benefits like health insurance. And they may not be very secure, so you could be laid off every time business slumps. Your best bet is to get a solid academic foundation and pursue some kind of education after high school.

You can shape
a future that's
right for you.

Many forces will have an impact on your future career — the demand for workers in the field you choose, the job market in the area where you live, the people you meet, and the unexpected opportunities that come your way. You can't control all of these things, but you *can* take charge of your own learning — now. Here are two of the surest ways to prepare for a successful and satisfying career:

- ▶▶ Work hard at academic courses in middle school and high school.
- ▶▶ Complete formal education and training beyond high school.

And remember: College offers benefits that can't be measured just in terms of money. College can open your mind to new information and new ways of looking at the world. It can prepare you to make decisions and solve problems at home and at work. And it can give you more control over how you spend your working hours. There's a big difference between a job you do just because it pays the rent and a job you actually like. College can help make that difference.

The Center on Education Policy is the national independent advocate for public education and for more effective public schools. The Center works to help Americans better understand the role of public education in a democracy and the need to improve the academic quality of public schools. We do not represent any special interests. Instead, we help citizens make sense of the conflicting opinions and perceptions about public education and create conditions that will lead to better public schools.

Working at the national, state, and local levels, the Center achieves its mission by producing publications, writing articles, convening meetings, making presentations, and, upon request, providing expert advice. The Center also works jointly with many other education, business, government, and civic organizations.

Based in Washington, D.C., and founded in January 1995, the Center receives nearly all of its funding from charitable foundations, including The George Gund Foundation, The Atlantic Philanthropies, The Joyce Foundation, The Ford Foundation, and the Phi Delta Kappa International Foundation. To learn more about our work, please visit our web site at www.ctredpol.org

The American Youth Policy Forum is a nonpartisan professional development organization providing learning opportunities for policymakers and practitioners working on youth issues at the local, state and national levels. AYPF's goal is to provide participants with information, insights and networks on issues related to the development of healthy and successful young people, productive workers and participating citizens in a democratic society, including: schooling, transition to careers and career development, training and preparation for employment, postsecondary education, national and community service and related forms of youth development.

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This publication was researched and written by Diane Stark Rentner, the associate director of the Center on Education Policy, and Nancy Kober, a freelance writer and consultant to CEP. They received assistance from Jack Jennings, CEP's director, and from Betsy Brand, co-director of the American Youth Policy Forum, and Samuel Halperin, founder and senior fellow of AYPF.



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