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ABSTRACT

In order to encourage efforts to improve access to postsecondary education, this booklet offers data on students, enrollments, and financial aid. A highlights section opens the booklet. A section on the college student describes six actual students and discusses the diversity of the current student body in terms of race/ethnicity, gender, age, disabilities, persistence, fields of study, and character and traditions. A section on financing higher education describes the individual financing of four actual students and then discusses employment, need for assistance, federal assistance (Pell Grants, loan repayment), and costs and benefits. The final section "The Jackpot" looks at whether the hardship to students is worth the effort of obtaining a degree, and whether the cost of federal programs to support higher education and student financial assistance are justified. This section also describes the achievements of several individuals who benefitted from financial assistance as well as analyzing the financial returns to society by looking at income levels, unemployment rates and other factors. Appendixes offer further data on enrollment by type of institution and ethnic group, approximate undergraduate budgets, and a description and funding status of major federal student aid programs. A bibliography cites 22 sources. (JB)

Investing in the American Future:

COLLEGE ATTENDANCE, COSTS, AND BENEFITS

American Council on Education

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CONTENTS

PREFACE

An Irish writer who taught in the United States, Séan O'Faolain, once claimed it is the student "who makes a university [and] gives it its lasting character...and tradition." If O'Faolain was correct, the character and traditions of American colleges and universities have changed radically in the last generation. Dramatic demographic and social developments of the last 25 years have remade the face of America's student population.

Virtually everyone who examines this document either attended college or knows someone who did. Most readers' perceptions of undergraduate life will be filtered through this personal experience. But that filter is likely to be distorted by the flaw of yesterday's memories. Typical college students in 1992 bear very little resemblance to their counterparts of just a generation ago.

Old assumptions need to be brought into line with today's realities. Some may consider colleges to be sanctuaries for the well-to-do or the best hope for the nation's poor. Others may understand the college experience as life lived in a suburban or rural ivory tower, or as the hurly-burly of part-time study barely removed from busy city streets. Still others may be convinced that college students barely subsist from paycheck to paycheck or, conversely, live largely (in the words of a former federal official) for "stereos, automobiles, and three-weeks-at-the-beach." All of these views, including their internal inconsistencies, are true somewhere, for some students, on some campuses. Not one of them is universally true everywhere.

Investing in the American Future is a rich source of data and information on students, enrollments, and financial aid. Policy makers interested in understanding how to enhance access to postsecondary education will find it a basic sourcebook. More than that, they will find that this document challenges conventional wisdom about how students enroll, where they enroll, and how they finance their education.

Robert H. Atwell
President
American Council on Education
September 1992

HIGHLIGHTS

This document describes the students entering American colleges and universities today, how they pay their education bills, and the benefits graduates and society derive from their investments in higher education. It also illustrates the trials, frustrations, and triumphs involved in earning a degree – and the value of that degree in later life – with nearly two dozen real-life case studies of students and their families. The case studies put flesh and blood on the skeletal description that data and statistics provide on today's undergraduates. This section highlights the bare bones of the skeleton.

The Students

- If the traditional image of a college student is that of a relatively affluent, young white male who attends college full time, fewer and fewer students today can be called "traditional."
- About one student in five is a member of a minority group: African American, Asian American, Latino, or Native American.
- Equalizing access and graduation rates for minorities will be a major issue in coming decades. By 2010, the number of minority youth will increase by 4.4 million; the number of white youth will decline by 3.8 million.
- In every year since 1979, more women than men have been enrolled in institutions of higher education.
- The older student population increased by 141 percent in the past 20 years, and now includes 300,000 students over the age of 50.
- The proportion of part-time students on campus increased from one-third in 1970 to 43 percent today, and is expected to rise to 45 percent in five years.
- About one student in ten reports a health problem or disability of some kind.
- Three-quarters of traditional students – students who enroll full time at four-year institutions immediately after high school, and remain full time for four consecutive years – obtain a bachelor's degree within 5.5 years.
- Nonetheless, overall graduation rates are disappointing. Graduation rates for nontraditional students (those who delay entry, stop out,

switch to part-time status, or transfer) are very low. Consequently, only 56 percent of *all* students who enroll full time in four-year institutions receive a bachelor's degree within 5.5 years.

- In terms of degrees awarded, the study of business is in a league of its own. Nearly one-quarter of a million business bachelor's degrees were awarded in 1989. The next most favored majors are the social sciences and psychology (156,000 degrees), education (nearly 100,000), engineering/engineering technologies (85,000), and the letters and humanities (78,000).

Paying the Bills

- Total costs (tuition, fees, room and board, transportation, and other expenses) averaged $7,600 at four-year public institutions and $16,300 at four-year private institutions in 1991-92.
- Sixty-three percent of all students enrolled at four-year institutions (public and private) faced fixed costs for tuition and fees of less than $3,000 in 1991-92. Barely 7 percent of all undergraduates pay the full price at colleges with total charges above $20,000, and most of those who do so come from families with incomes in excess of $80,000.
- Most students need financial assistance. Nearly half of all freshmen report family incomes of $40,000 or less, including 25 percent who report family incomes below $25,000.
- A college education means upward mobility for many. For every two students whose fathers are college degree holders, three come from families in which the father did not earn a degree. One in eight reports the father dropped out of high school.
- Sixty-two percent of students of all ages work, including nearly half of traditional college-age students. One in ten full-time students also works full time.
- Six of ten full-time undergraduates received financial assistance in 1989. The average aid award totaled $4,800.
- Students increasingly are forced to rely on loans. The average loan exceeds $2,700 annually, and loans (once a fifth of federal assistance) are now the largest source of federal student aid. The number of loan applicants tripled between 1977 and 1987.
- Inadequate funding and inflation are hobbling the Pell Grant program. The explosion in the numbers of eligible recipients combined with inflation means that, in 1992, 4.2 million students are forced to share

the same amount of money (in constant dollars) that served 2.8 million students in 1987.

- One-quarter of all student borrowers in postsecondary education (including for-profit trade schools) are defaulting on their loans. About 10 percent of the dollars lent to students in four-year colleges and universities are not being repaid, while 46 percent of the dollars lent to students in for-profit institutions are in default.

The Jackpot

- College degrees make an extraordinary difference in the lives of people holding them and in the lives of their communities.
- Earning a college degree pays dividends throughout the college graduate's career. In a lifetime of employment, a man with a college degree earns about $12,000 more annually than a man with a high school diploma. Women with degrees earn about $9,200 more annually than women who complete only high school.
- College graduates are much more likely to be employed than non-graduates. In 1990, the unemployment rate for high school *dropouts* was about 12 percent; a high school diploma cuts that rate in half; a college degree cuts the rate in half once again.
- Because they earn more, hold greater financial reserves, and are unemployed less frequently, college graduates make fewer demands on the public purse for needs such as unemployment compensation and health care.
- Wage earners with incomes approaching $50,000 annually (the median for college-educated men) are far more likely to be paying the highest marginal tax rates than wage earners with incomes below $30,000 or $20,000, the medians for male high school graduates and dropouts, respectively.
- The extension of the opportunity to earn a college degree has been an important component of national economic growth. It is estimated that throughout this century, increases in educational attainment have accounted for 27 percent of the growth in national income.

Each year in the United States, millions of citizens spend $20 billion or more purchasing tickets in 35 state lotteries. Powerful incentives have spurred the growth of lotteries in recent years. For the state, the incentive lies in the revenue stream generated by the accumulation of individual small wagers. For the individual, the incentive lies in the hope of hitting a big payoff, perhaps $1 million or more paid out over a 20-year time span. Success for the ticker buyer requires little time, no effort, and a lot of luck. The buyer's chance of hitting it really big is really slim: In a typical state, the odds of winning $1 million are one in 7.1 million. In the biggest rollover lotteries, the odds reach one in 52 million.

And every year, about 15 million citizens purchase a different ticket. The incentive is frequently similar: the hope of a big financial payoff. All levels of government benefit from the tax stream produced by the people holding winning tickets. Rewards for individuals can be an additional $20,000 (or more) paid out annually over a lifetime. Success for the ticket buyers requires a lot of time and a great deal of effort. But no element of chance is involved because ticket buyers and government hold an ironclad guarantee: Three out of four young ticket buyers – and half of all buyers – will hit the jackpot. The ticket allows one to enter college. The jackpot is a college degree. In the final analysis, higher education is not a sweepstakes at all, but a blue chip investment for individuals and the nation.

Who are the students in today's colleges and universities? What are they studying? How successful are they in completing their studies and how do they finance them? What changes in enrollments, and the demographic base underlying them, are likely in the decades to come? What are the financial implications, for individuals and the larger society, of obtaining a college education? These are among the questions the American Council on Education set out to explore in this document.

A Student Scrapbook

Trends and developments among college students can be defined by data at the national, state, and institutional levels. But numbers and statistics are sterile things, impersonal aggregates without a human face. Individually, each of the 15 million undergraduates enrolled on American campuses has

a unique story to tell, and numbers do not do those stories justice. One way to understand the college student today is to listen to some of their stories, with their undertones of hope, sacrifice, ambition, frustration, and triumph. Each of the vignettes that follows is a true story. Unless these stories have been publicly reported before, the names of the students have been changed. But each vignette illustrates a major aspect of the experience of today's undergraduate.

- **Kyle Lewis**, 24, realized a childhood dream this year when she received a degree in chemical engineering from Northeastern University.[1] But her dream is accompanied by a nightmare: the anxiety of the $22,000 debt she has piled up to finance her education. The daughter of a police dispatcher, Kyle made it through the first four years with the help of Northeastern's co-op curriculum (a five-year program in which full-time study alternates with full-time work experience), her parents, merit scholarships, government and school loans, two campus jobs, and clerical work at a local church. But when her brother graduated from Morehouse College, her financial aid package was reduced by $4,000 – at the same time, her parents realized they had run out of financial steam.[2]

  She dropped out for two years to work and returned with a larger loan, a stipend for heading the Black Student Association, and three additional scholarships (two targeted to minority students) to finish her degree.

- **Jane Jones** graduated from high school in 1983 and received a bachelor's degree in general studies from Radford University in 1991. Her story is the exception to the general rule that younger students complete college faster than older students, and it illustrates the fruits of perseverance. Major surgery in high school successfully removed a congenital, non-malignant brain tumor, but compounded the routine difficulties of studying by interfering with the young woman's stamina and ability to concentrate for extended periods. Overwhelmed by the twin pressures of college work and being away from home for the first time, Jones dropped out of a women's liberal arts college after her first year.

  Returning home, she enrolled at a local community college in Southwest Virginia. Alternating full-time enrollment with work for four semesters, Jane carefully enrolled in courses that would transfer to

another liberal arts college. Accepted in 1986, she still found the pressures of college life away from home overwhelming; her grades suffered and she was asked to leave. Returning to the community college, she concentrated on raising her grade point average and completing general education requirements. Transferring to Radford (a local state institution) in 1989, Jones obtained her degree two years later while living at home. Immediately after graduation, she worked for several months as a trainee with a nationwide electronics retailer before switching to telemarketing sales.

- **Rogelio Dominquez**, a year out of high school in 1973, thought he was on top of the world. An apprentice with Inland Steel, he was making more money than his father and preparing to get married. His father jolted him out of his complacency. "You dumb Mexican," he was told, "You don't know anything. You should be trying to get an education, to make something out of yourself." It was like a slap in the face; Rogelio's father resented racial slurs bitterly, never used them, and certainly never directed them at his own family.

  An indifferent high school student, Rogelio needed the counseling and tutoring of the Office of Special Services to be admitted to Indiana University Northwest. Graduating with a degree in sociology in 1979, he had already completed three years with the State Police and was one of the first Hispanics to be accepted to the State Police Academy. Dominquez received his law degree from Valparaiso University in 1982 and while pursuing a career in prosecution has spearheaded Hispanic voter registration drives and created a Hispanic law students' support group.

- **Jack Morris** was awarded a degree in mechanical engineering from Philadelphia's Drexel University in 1992. In the spring of his senior year in high school (1987), his father, a self-employed contractor and sole supporter of the family (who had dropped out of school at the age of 14), was diagnosed with terminal cancer. Forced to retire, the father supported himself, his wife, and four children on a monthly Social Security disability check. Despite financial hardship and the fact that Jack's sister, Karen, was already enrolled at Villanova University as a business major, Jack's family persuaded him not to abandon his plans for college. With the help of a Pell Grant, a state grant, and a Stafford Loan (all based on financial need), Jack enrolled in Drexel's co-op engineering program.

Assigned for his work experience to an engineering firm holding a multi-year contract with the U.S. Navy, he received his degree in 1992. He also received a remarkable introduction to the world of work. In the course of five years, his employer brought him to most of the major naval facilities in the United States – from Hawaii to Connecticut – to help repair hydraulic systems on naval vessels. On graduation, Jack accepted a handsome job offer from the contractor.

- **Susan De Rosa**, 38, decided it was time to pursue her dream of becoming a teacher after being robbed at gunpoint.[4] "I realized that life is short," she said. "I decided I was going to do something that I always wanted to do." With two children (15 and 11 years old), a husband, and a full-time job, she enrolled at Queens College in New York as an education major. Her third child arrived in her junior year; undeterred, she is now a fifth grade teacher pursuing a graduate degree. Susan's story is not unusual on today's campus. The late singer and actress **Pearl Bailey** enrolled at Georgetown University in 1978 at the age of 60. For seven years, she mixed study with an international career before receiving a bachelor's degree in theology in 1985.[5]

- **Eran Rosenthal's** tale is more conventional in many ways. He spent his first three years at the University of North Carolina at Chapel Hill as a part-time student.[6] He could not afford to cut his work schedule to shoulder a full academic load. To meet expenses, he managed a clothing store, tended bar, modeled clothes, and wrote advertising copy. His single mother covers part of the cost of his education, providing he maintains a B- average in each course. Otherwise, his mother's contribution reverts to a loan. When he receives his degree in December 1992, Eran (at the age of 24 with six years of full- and part-time undergraduate work behind him) plans a career in advertising.

The New Diversity

What these vignettes reveal is the remarkable diversity of students on campus in the 1980s and 1990s. Fewer and fewer students today match the traditional image of a college undergraduate – a white male from a relatively affluent family, under the age of 22, attending college full time. More and more students today are from minority backgrounds and from families living in straitened circumstances. Also, more and more students are older, seeking

opportunities to study part time so that they can manage career and family obligations as well.

Race and Ethnicity. The demographic realities of the United States have changed substantially in recent years. Table 1 displays the numerical and proportional change in the U.S. population, by race and ethnicity, between 1980 and 1990. The most striking aspect of these figures is the following: Although the total population of the United States increased by about 10 percent in the last decade and white Americans accounted for the lion's share of the numerical increase, the minority proportion of the U.S. population is increasing much faster than the white population.

Table 1
Change in U.S. Population, 1980-1990 by Race and Ethnicity

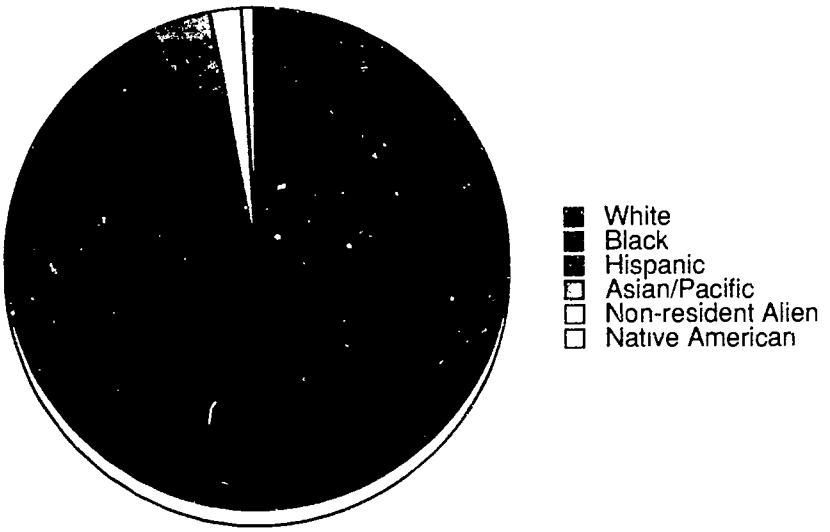
	Numerical Increase	Percentage Increase
Asian or Pacific Islander	3,773,223	107.8
Black	3,491,035	13.2
Hispanic (of any race)	7,745,386	53.0
Native American, Eskimo, or Aleut	538,834	37.9
White	11,314,448	6.0

Source: Bureau of the Census, 1992.

Undergraduate enrollments at institutions of higher education are beginning to reflect these changes: As Figure 1 indicates, about one in five undergraduates today is a member of a minority group, a proportion that reflects rising enrollments of Hispanics and Asians as well as African-American women, and declines in the number of African-American men. Although still underrepresented, Kyle Lewis and Rogelio Dominguez no longer are the oddities they would have appeared to be on predominantly white campuses just a generation ago.

Although encouraging, these figures are hardly cause for satisfaction. They reflect rough parity between undergraduate enrollments and the proportion of the majority and minority populations in the United States. None-

Figure 1
Undergraduate Enrollment, Institutions of Higher Education, by Race/Ethnicity of Students, Fall 1990



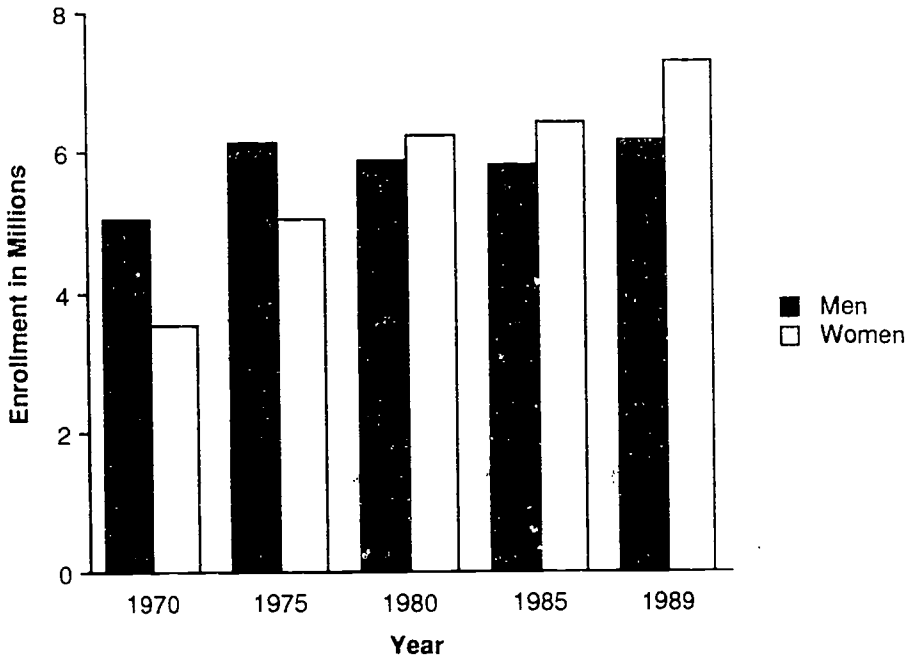
Source: American Council on Education, 1992.

theless, they do not reflect parity with the general youth population (in 1990, about 30 percent of people below the age of 18 were members of minority groups) or the increasing proportion of minority high school graduates.

The issues of access of minority youth to higher education and success while enrolled are likely to become even more pressing in the decades to come. Recent projections of the youth population (up to 17-year-olds) indicate that between 1990 and the year 2010, the total youth population will increase by only 500,000. But a demographic sea change is disguised in the overall figure. In that 20-year period, the number of non-white youth (African Americans, Latinos, and other peoples) will increase by 4.4 million, while the number of white, non-Hispanic youth will decrease by 3.8 million.[7]

Enrollment Change by Gender. One of the clearest indications of the effect of the women's movement on American institutions can be found on the nation's college and university campuses. Although the revolution in gender roles is far from complete on campus or elsewhere, it already has had a profound effect on enrollments in institutions of higher education. College and university enrollments traditionally have been dominated by men, but since

Figure 2
Women's Enrollment Exceeds Men's Throughout Last Decade



Source: National Center for Education Statistics, 1991.

1979 more women than men have been enrolled every year. (See Figure 2.) For the last decade, there have been more Jane Joneses, Susan DeRosas, and Kyle Lewises on campus than Jack Morrises and Eran Rosenthals.

Older and More Part-time Students. Another significant change in higher education is the growth in both the number of students beyond the traditional college age and the number of students attending school part time. (See Figures 3 and 4.)

The number of older students on campus increased at a remarkable rate in the last 20 years, by 141 percent. Susan DeRosa and Pearl Bailey would feel much more comfortable on campus today than they did in the early 1980s: About 43 percent of today's undergraduate students are over the age of 25. In fact, nearly 20 percent of all students are older than 35, including nearly 300,000, like Pearl Bailey, over the age of 50.

The "greying" of the campus has been accompanied by steady increases in the proportion of all students (undergraduate and graduate, two

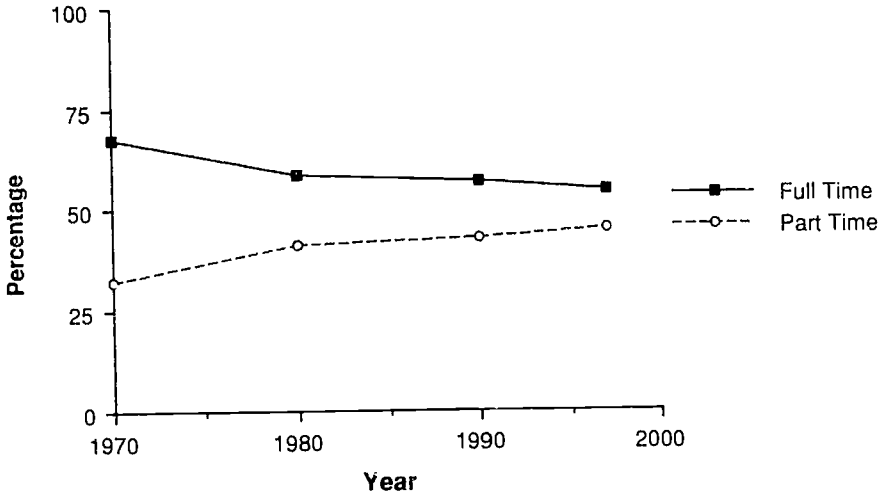
year and four year) enrolled part time. In 1970, about one-third of all students were enrolled part time. That proportion has risen steadily in recent years. Today, more than four of ten undergraduate and graduate students (43 percent) resemble Eran Rosenthal and Jane Jones: They attend school part time for at least part of their studies. The proportion of students attending part time is expected to rise to 45 percent by 1997.[8]

Students with Disabilities. Finally, Jane Jones' experience on campus is not uncommon. About one student in ten (a total of more than 1.3 million students) reports a health problem or disability of some kind.[9] The most frequently reported problems are visual impairments, health problems, hearing difficulties and deafness, and orthopedic issues. Since 1978, there has been a three-fold increase in the proportion of entering full-time freshmen reporting disabilities, from 2.6 percent to 8.8 percent.[10] It is likely that recent federal legislation, including the Americans With Disabilities Act and the Rehabilitation Act of 1973 – both of which require improved access to programs and to public buildings and facilities (e.g., ramps and elevators) – will continue to encourage this growth.

Figure 3
One-Third of 1987 Undergraduates Older than Traditional Age

Source: National Center for Education Statistics, 1991.

Figure 4
Full- and Part-time Enrollments, 1970-1989
with Projections through 1997



Source: National Center for Education Statistics, 1991.

Persistence

The changes described above raise anew longstanding questions about persistence and completion patterns in American higher education. In light of growing numbers of nontraditional students with different enrollment and attendance patterns, is the enterprise of higher education less efficient than it was? Are students graduating within a reasonable period after they enroll?

The traditional understanding of college attendance is that of students entering a four-year college in the fall immediately following high school graduation, studying full time for four consecutive years, and then graduating. In fact, three out of four 1980 high school graduates who followed that pattern received a degree within 5.5 years.[11] It is difficult to believe that this graduation rate for traditional students can be improved substantially: Some traditional students will find they dislike the academic experience and drop out. Others will be asked to leave. And yet others will find their initial plans for a major unrealistic or unattractive, and will switch course in midstream and lengthen their college careers to meet graduation requirements.

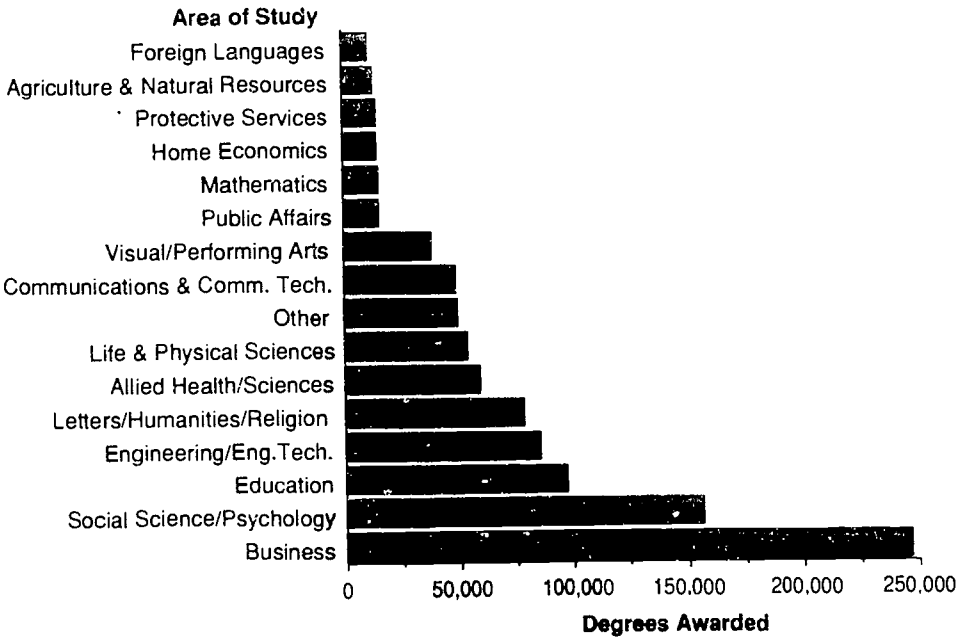
Nevertheless, only about one-half of all students who enroll full time in four-year institutions receive a bachelor's degree within six years. Completion rates for nontraditional students are very low: Students who delay entry to

college after high school, stop out for personal reasons or to take care of other obligations, or transfer to another institution take longer to attain degrees. Those who enroll part time – initially or in midstream – have even more difficulty. Income and racial background also play their part: High school seniors of high ability but low "socioeconomic status" are less likely to attain a bachelor's degree than their counterparts from more affluent families. African American and Hispanic students are both less likely to enter college on the traditional path and less likely to continue full time for four years.

Fields of Study

What do today's undergraduates study? What do most of them seek as a major? Their studies cover the range of human knowledge from agriculture and agricultural science (e.g., agricultural mechanics, horticulture, and pest management), to communications and communications technologies (e.g.,

Figure 5
Areas of Study in which 10,000 or more Bachelor's Degrees Were Awarded by Colleges and Universities, 1989



Source: National Center for Education Statistics, 1991.

advertising, journalism, radio and television technology), to education (e.g., bilingual/bicultural, adult, and special education), to allied health and health sciences (e.g., dentistry, nursing, and rehabilitation services), to theology (e.g., Bible studies and religious music), to the visual and performing arts (e.g., film, fine arts, and music).

Figure 5 displays every area of study in which 10,000 or more bachelor's degrees were awarded by American colleges and universities in 1989. Business appears to be in a league of its own: nearly one-quarter of a million bachelor's degrees were awarded in business administration, commerce, and finance in 1989. The social sciences, including psychology, constitute the next most popular field of study, followed by education, engineering and engineering technologies, and a combined category including letters, the humanities, and religion and philosophy.

New Character and Traditions

The "character and traditions" of American campuses, to use O'Faolain's phrase, have been changed irrevocably because the nature of the student body has changed. Most of these students appear to be more worried about finding money for tuition than about financing three weeks at the beach. They are serious about their education, not frivolous. They and their families appear willing to go to great lengths to finance their education. At the same time, the growing number of new kinds of students – students who are low income, or from minority backgrounds, or part time, or older, or who arrive with disabilities or as parents – has reshaped the undergraduate experience in terms of offerings and services. Evening courses, Saturday classes, daycare, student support groups, accessible facilities, special counseling, and other services have helped transform the campus.

PAYING THE BILLS

Few higher education issues generate as much public interest as the question of the cost of a college education today – and how to cover it. In particular, recent reports of steep increases in tuition have fueled concern that college costs are rising beyond reason. This is a legitimate concern. But despite recent increases, the costs for most students and parents still appear to be moderate.

Higher education institutions share a common purpose with the nation's public schools (kindergarten through grade 12): Both entities educate millions of students. But after that, the comparison breaks down. Public schools rarely undertake the public service obligations of the nation's colleges and universities; have nothing to do with the advanced research carried out throughout higher education (often at great expense); and almost never provide a 24-hour-a-day living environment for their students. But the teaching mission of the nation's colleges and universities on the one hand, and public schools on the other, is identical, despite differences in clientele, organization, and level of instructional difficulty. How do these two major national entities compare with each other in terms of instructional expenditures?

The answer is that instructional expenditures per student in higher education are higher than they are in public schools (K-12), but they do not appear to be exorbitantly higher. The last year in which comparable per-student cost and expenditure data for both higher education and public schools are available is 1987–88. In that year, current instructional expenditures per full-time-equivalent student in higher education were $3,882.[12] For public schools, current expenditures per pupil in average daily attendance were $2,459.[13] Although considerably higher, it must be acknowledged that "instructional expenditures per full-time-equivalent student in higher education" include expenses not only for large underclass lectures, but also expenditures for small upperclass seminars as well as instructional costs for *graduate and professional students*. In considering the comparison of these expenditures, the advanced nature of the instruction provided in colleges and universities must, if the comparison is to be meaningful, be taken into account.

Moreover, the average undergraduate is asked to absorb only three-quarters of these expenditures. The average charge for undergraduate tuition

and required fees in 1989–90 was $2,892 for all institutions, four year and two year. Obviously, the average costs to students for tuition and fees do not include support provided by state and local government to public two-year and four-year institutions. This support permits the institutions to reduce their charges to students and parents. Nonetheless, the average costs requested of students for direct education services appear to be eminently reasonable.

Tuition and fees for public colleges and universities averaged $1,022 at two-year institutions and $2,137 at four-year institutions in 1991–92.[14] Undergraduates attending private institutions faced fixed costs for tuition and fees averaging $5,290 at two-year colleges and $10,017 at four-year institutions. Room and board charges add substantially to these costs, averaging $3,351 at four-year public institutions and $4,386 at four-year private colleges and universities.

Most of the nation's students are enrolled at public institutions, and thus pay lower costs. In fact, 63 percent of all undergraduates enrolled in four-year institutions (public or private) faced tuition and fees of less than $3,000 in 1991–92.[15] Barely 7 percent of all students are charged more than $12,000 for tuition and fees, and many of them receive scholarships, grants, subsidized loans, or all three. Most of the public concern about costs relates to reports of annual college charges (tuition, fees, room and board, books, and living expenses) in excess of $20,000. But barely 2 percent of all undergraduates pay these charges in full; most who do come from families with annual incomes in excess of $80,000.

Still the question remains: Are most students so well off that taxpayers are supporting expensive consumer goods and vacations for undergraduates? Coming to grips with student finances is, if anything, more complex than understanding enrollment composition. The distinctions – between two-year and four-year institutions, between public and private institutions, between costs for tuition and fees and costs for all expenses including room and board – are endless, and their complexity is multiplied by a maze of federal, state, and local financial aid schemes, each with its own eligibility requirements and peculiar Catch-22s. Even a grasp of these distinctions, moreover, is useful only in an analytical and abstract sense. But the distinctions involve real students, not abstractions. No grasp of student finances is complete without some understanding of the endless variability in the financial circumstances students bring with them to college.

- **Chris Milz**, from the small town of Monroe, Wisconsin (population 10,000), had an all-American childhood.[16] Delivering newspapers, mowing lawns, and cleaning streets, Chris had saved nearly $6,000 toward his college expenses by the time he graduated from high school. The middle of three children, he set his sights on the University of Wisconsin at Madison, where millions have since seen him on television as one of the five unpaid "Bucky Badger" mascots entertaining crowds at football and basketball games.

  The son of a manager for a business-forms printer and a professional housecleaner, Chris continues to work in college, primarily each summer, earning more than $6,500 a year giving tennis lessons. The rest of his college funds come from his parents ($1,000) and grants ($1,200). He hopes to go into sportscasting. Having switched majors twice, first from business to education and then to radio and television, he will take six years to earn his degree. But the "sweat equity" he has in the degree means he probably will graduate debt free.

- By the time **Jeremy Coate** receives his degree from Reed College in Oregon, his parents will have contributed $40,000 from savings, income, and a second trust on their home, and Jeremy will be $8,000 to $10,000 in debt. Jeremy qualified for loans and a work-study program totaling $3,000 in his first year and, subsequently, received an Oregon state scholarship and an institutional award of $20,000 for his final three years of study. A biology major planning on graduate study, Coate works ten hours a week as a data-entry clerk during the school year and as a convenience store cashier and fund raiser for an environmental group during the summer. His parents have no regrets about the expense they have incurred. "This is what money is for," says his father. "We would have spent it on other things, but they wouldn't have been as valuable."

- **Ellen Smith** of Arlington, Virginia, became so concerned about the state of the nation's inner cities after the Los Angeles riots in the spring of 1992 that she wrote a letter to the editor of *The Washington Post* explaining how public programs to help the unemployed finance their way through college had turned her life around.[17]

Her own words tell the story: "I am a CETA 'graduate' and now a journalist.[18] Before CETA I was pumping gas for minimum wage in New Jersey. I became ill, and I went on welfare so that I could get health care. I did not want to get off welfare and go back to pumping gas, because I would lose my health benefits. I had no hope until my welfare case worker got me involved with the CETA program....CETA paid me minimum wage to attend classes and take the math and science courses I needed to get into a community college....I went to Rutgers University thanks to the help of Pell Grants and the Equal Opportunity Fund. Now I am an editor of a newspaper on mining law." Ms. Smith often wonders where she would be without this help: "No other members of my family have been to college. CETA helped me when my parents could not. Financial aid for college helped me where my parents would not."

- **Michelle Mello's** financial road through Stanford University looked smooth as she left her Modesto, California high school at the top of her class. Stanford offered her a $16,000 grant toward freshman costs, which were in excess of $22,000. Her divorced parents helped as they could: $3,000 from her father, who tests electronic manufacturing equipment, and $1,000 from her mother, an administrator for a food distributor. A happy event in the lives of both parents during her freshman year had unhappy consequences: The financial aid rulebook was thrown at Michelle. Both parents remarried and, on the theory that there were now four adults to help finance Michelle's education, Stanford cut her grant by $12,000. But the parents and step-parents had six other children to support. Michelle took a loan, began working 15-20 hours a week and, to save $800 a year, dropped her student meal plan and cooked in her room. By the time she graduates in 1993, she expects to owe at least $18,000.

Common Threads. Three threads tie these stories together, whether the students attended community colleges, public institutions, or private colleges or universities. First, large numbers of students work, and they work extremely hard, often at two or more jobs, to finance their education. Taxpayers support very few "free-loaders" on campus.

Second, large numbers of students require assistance with their expenses. Although nearly three-quarters of all students attend low-tuition public institutions, most also have to find the money to cover their meals

and lodging. Even at lower cost public four-year institutions, total charges for tuition, fees, room and board, transportation, and other expenses totaled nearly $7,600 in 1991–92.[19] Sending two or more children to school at the same time can be a financial nightmare, even for a middle class family. Finally, the changing undergraduate population has changed the extent and severity of need. Growing numbers of students from low- and moderate income backgrounds in the traditional age group – and many more nontraditional students with significant family obligations – mean that many more students experience difficulty with college costs.

Third, the financial aid system is so underfunded that students are forced to rely more and more on loans to get through school, and many of them graduate encumbered with enough debt that 25 or 30 years ago, they could have purchased a home with it, free and clear.

Employment

The working student is not a new phenomenon, and "working one's way through college" is part of the appealing Horatio Alger legend in the United States. But the number of students working today is surprisingly high. Kyle Lewis, Chris Milz, Jeremy Coate, and Michelle Mello, far from being the exceptions, are the norm in college today.

According to a 1990 profile on students who work:[20]

- 62 percent of students of *all ages* are working.
- 46.5 percent of *traditional college students* (full time between the ages of 16 and 24) work, an increase from 35 percent in 1972.
- Employed full-time students work an average of 20 hours a week. One in five is working 30 hours or more, and one in ten is working 35 or more hours a week, the equivalent of a full-time job.
- Very few students are getting rich. They work in food service, sales, and clerical jobs, not in technical or professional positions.

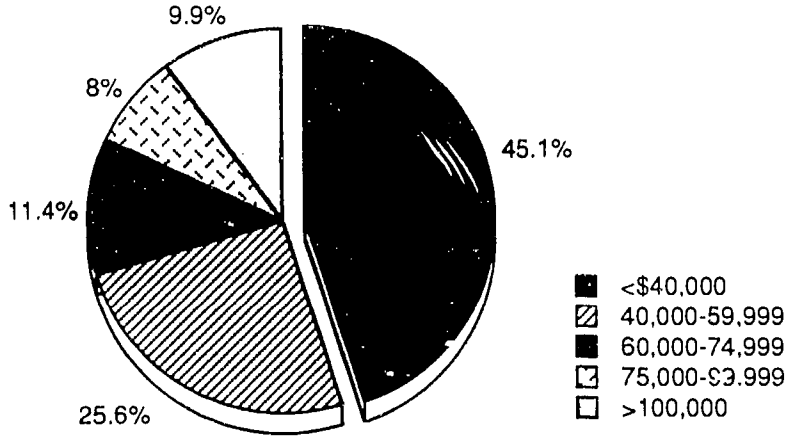
Students undoubtedly receive benefits from their employment beyond the immediate one of wages to help with college expenses. They learn something about the responsibilities and obligations of holding a job. They obtain a better understanding of the world of work. They may begin to develop a network of employment contacts that will stand them in good stead later in life. Many will develop a workplace polish that may impress interviewers as the students graduate and seek professional employment.

Nevertheless, there are significant disadvantages as well. The number of students enrolled part time has grown significantly in recent years, and for students like Kyle Lewis and Eran Rosenthal, studying has to take a back seat to earning their tuition. Moreover, student employment, particularly in excess of 25 or 30 hours a week, interferes with student participation in campus life. Very few students can be "Bucky Badger" even on a very large campus, but with nearly half of all traditional students working, campus activities and opportunities for community service must suffer.

Many Students Need Assistance

The vignettes on previous pages illustrate what the families of college students know from their own experiences: An undergraduate is a financial black hole in sneakers. Students are voracious consumers of the family's savings; they gobble money for tuition, fees, lodging, meal plans, books, computers, software, transportation, clothes, laundry, and leisure. The financial problems many students experience are real and revolve most frequently around buying academic supplies and eating. Computers and affiliated software are necessities for many students, but far from the only unanticipated academic expense. A course with a heavy reading load can

Figure 6
Nearly One-Half of All Full-Time Freshmen Report Family Incomes below $40,000



Source: Higher Education Research Institute, UCLA, 1991.

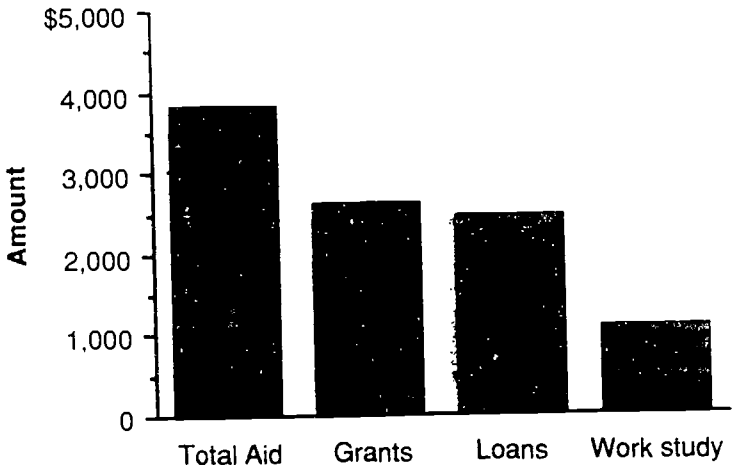
require expenditures of $100 to $150 just for required texts; quarterly or semester expenditures for books often exceed $500.

These costs must be understood in the following context: Most students arrive on campus from families of quite modest means. The median income for all families in the United States in 1990 was $35,353.[21] As Figure 6 indicates, nearly half of all first-time, full-time freshmen arriving on campus in 1991 reported family incomes of $40,000 or less, including about one-quarter who reported family incomes of less than $25,000. Fewer than one student in five reported coming from a family with an income of $75,000 or more.

Although self-reported by incoming college students (and therefore likely to contain many errors), the income estimates shown in Figure 6 appear to be consistent with student reports of their parents' education. Members of the entering freshman class of 1991 were children of the postwar baby boomers, perhaps the most highly educated generation in American history in terms of years of schooling completed. Nevertheless, whether one examines the reported education of the father or the mother, the majority of entering freshmen report that their parents did not graduate from college.

In fact, about one in eight students resembles Jack Morris and Ellen Smith: The father was a school dropout. One in ten reports his or her

Figure 7
Average Aid Awards, Full-time Undergraduates, Fall 1989



Source: National Center for Education Statistics, 1992.

mother does not have a high school diploma. Overall, nearly six out of ten report that their fathers left school before attaining a college degree; for mothers, the figure is nearly seven out of ten. It seems clear that a college education remains a major avenue for upward mobility in the United States. Three students from families in which the father did not hold a degree entered college in 1991 for every two from families in which the father had completed college.

Against this backdrop and the cost of attending college, it is perhaps to be expected that six of ten full-time undergraduates receive financial assistance, averaging more than $4,800 per year. Figure 7 maps the average aid awards made to full-time undergraduates in the fall of 1989. The average work-study award exceeded $1,000; the average loan exceeded $2,700; and the typical grant was just over $3,000. Because not every recipient receives all three types of aid, the average total aid awarded was less than the sum of the three kinds of assistance.

Although nearly 60 percent of full-time undergraduates receive financial aid, students increasingly are forced to rely on loans to finance their education. Loans, which accounted for just 20 percent of federal assistance in 1976, have become the largest item in the federal student aid budget because grant funds have not kept pace with inflation.[22] The number of students applying for Guaranteed Student Loans tripled between 1977 and 1987.[23] With average annual loan awards above $2,700, more and more students leave school in the same situation as Kyle Lewis, Jeremy Coate, and Michelle Mello: They have accumulated debts of $10,000 or more, often approaching $20,000, just for their undergraduate education.

Federal Assistance

Table 3 outlines the major sources of federal financial support available to students.

Table 3
Sources and Amounts of Federal Student Aid, 1992
($ in millions)

Source	Appropriated	Generated or Available	Recipients
Pell Grants	$5,460	$5,460	3,800,000
SEOG Program*	577	577	970,000
Perkins Loan Appropriation	156	700	688,000
Stafford Appropriations	7,101**	12,300***	3,600,000
SLS/PLUS*	-0-	2,577***	887,000
SSIG*	72	1,800	240,000
CWSP*	615	800	984,000
Totals	**13,981**	**24,214**	**Not Applicable**

* For descriptions of these programs, see Appendix C.
** Includes interest subsidies; reimbursement for default, death and disability; and administrative allowances.
*** Loan volume, private sector.

Sources: American Council on Education and Committee for Education Funding, 1992.

The aggregate amount of aid available and the multiple sources from which it can be obtained are impressive. Even more impressive is the amount of additional public and private assistance federal appropriations help unleash. The federal government's sticks and carrots – guaranteeing banks and other lenders that loans will be repaid, subsidizing interest on large numbers of loans, requiring states to initiate their own grant programs to qualify for the SSIG program, and requiring the nonprofit sector to pay 30 percent of the wages of students employed under College Work-Study –

nearly double the federal expenditures on financial aid, helping literally millions of students.

The Pell Grant Program. But what is impressive in the aggregate can be extremely disappointing at the level of individual students and their families. The dynamics of how federal student assistance in the aggregate works itself out at the level of the individual student are perhaps most apparent in the Pell Grant program. Pell Grants were established as Basic Educational Opportunity Grants in 1972 and were designed to serve as the "foundation" for other federal grant, work, and loan programs. Students like Kyle Lewis, Rogelio Dominquez, Jack Morris and his sister Karen, and Ellen Smith are prototypical Pell Grant recipients – from circumstances so poor that college attendance is out of the question without a significant foundation grant.

First funded in 1973 (and only for full-time freshmen in academic year 1973-74), the Pell program was intended to provide a maximum award of $1,400 and a minimum of $200, but in no case to exceed 50 percent of the cost of attendance. The statute included a formula for reducing awards in the event that appropriations were insufficient to cover all eligible students. Unlike borrowers in the Guaranteed Student Loan program, now called the Stafford Loan program, students are not *entitled* to Pell Grants. Pell Grants are rationed: The money available under the program is stretched as far as it can go each year to cover all eligible recipients.

Subsequent amendments in 1976, 1978, 1980, and 1986 authorized substantial increases in the maximum award, which rose to $3,100 by academic year 1991-92. In fact, 1992 legislation authorizes a maximum amount of $3,700. But the authorized increases in maximum awards have never been funded fully; in 1992, the maximum award reached $2,400. Amendments since 1972 also often increased the number of eligible families (e.g., the 1978 amendments incorporated families with incomes up to $25,000, or $54,833 in 1992 dollars), and added independent and half-time students. As a result, the universe of eligible students increased 50 percent between 1976 and 1981, from 1.9 million to 2.7 million, and has continued to grow.

As Figure 8 illustrates, while annual funding for the Pell program appears to have grown substantially since the program was enacted 20 years ago, two factors have powerfully reduced the effect of the extra funds. First, taking inflation into account, funding growth for the Pell program has been virtually nonexistent since 1979, just three years after the program became

available to all students throughout their college years. In constant 1973 dollars, funding actually declined in the first half of the 1980s and today is barely above its 1987 level. At the same time, the dramatic growth in the number of eligible students has created a situation in which 4.2 million recipients are forced in 1992 to share essentially the same amount of money (in constant dollars) that only 2.9 million students drew on in 1987. The important trend to keep one's eye on in Figure 8 is not the attractive rise in annual appropriations, but the slow and steadily widening gap between appropriations in constant dollars and the number of eligible recipients.

The short-term consequence of these trends is that average awards in 1992 reached only $1,452 per student in 1992 dollars. Ironically, that is almost exactly the level of the maximum award contemplated in the original legislation, but the purchasing power of today's average award is equal to only $452 in 1973. Maximum awards, as a percentage of college costs, have declined from about 46 percent in academic year 1979-80 to 23 percent in academic year 1992-93.[24]

Loan Repayments. On one level, the various guaranteed student loan programs administered by the U.S. Department of Education (see Appendix D) have all the earmarks of a successful public/private partnership between government and the financial community. Between 1966 and 1991, at a cost to the federal government of about $42.6 billion, financial institutions have made more than $127.4 billion available for more than 57.4 million student loans. Each federal dollar is leveraging nearly three from the private sector, enabling literally millions of Michelle Mellos, Jack Morrises, Eran Rosenthals, and Jeremy Coates to enter and complete college (and graduate or professional school) or training programs in proprietary (for-profit) schools.

But growing concern about default rates has, in the last decade, turned the sweet taste of successful policy sour. Default rates for the Stafford Loan program, the major loan program administered by the Department of Education, have risen alarmingly. Throughout the latter half of the 1980s, more than one-quarter of all student borrowers defaulted on their loan obligations.[25] In terms of the dollar volume of the defaults, the picture is quite clear (see Figure 9): About one in ten of the dollars lent to students attending both public and private four-year institutions is not being repaid.

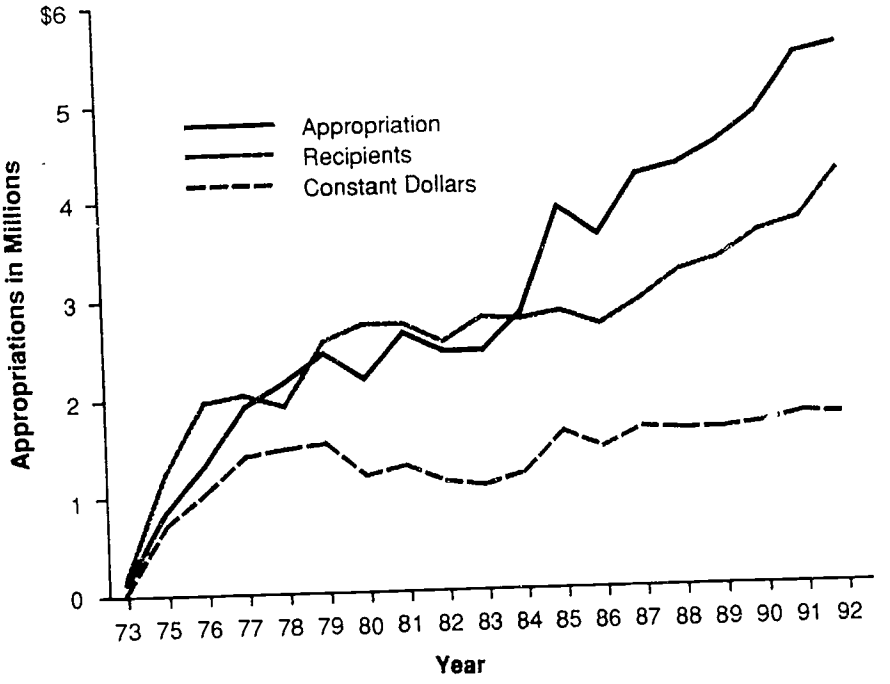
The dollar-default rate for students who attended public and private two-year institutions is somewhat higher, although the total amount borrowed by these students is very small due to the low tuition charged by most of these institutions. At the other extreme, fully half of former proprietary

school students who entered repayment in 1985, 1986, and 1987 are in default status.[26]

By comparison with default rates on conventional credit arrangements (e.g., automobile loans, home mortgages, or personal or small business lines-of-credit), the overall default rates, for both borrowers and dollar volume, are remarkably high and the 50 percent borrower-default rate for proprietary institutions is unprecedented. Indeed, in the context of this program, the relatively low default rate for former students of four-year institutions is a small triumph, approaching the experience of federally insured "VA mortgages" for former members of the armed forces.[27]

With regard to guaranteed student loans, in fairness to the public officials who created and developed the program, the lending institutions who participate, the educational institutions involved, and the students who borrow the money, several considerations must be kept in mind. First,

Figure 8
Appropriations for Pell Grant Program 1973-1992 (Actual and Constant 1973 Dollars) and Number of Grant Recipients



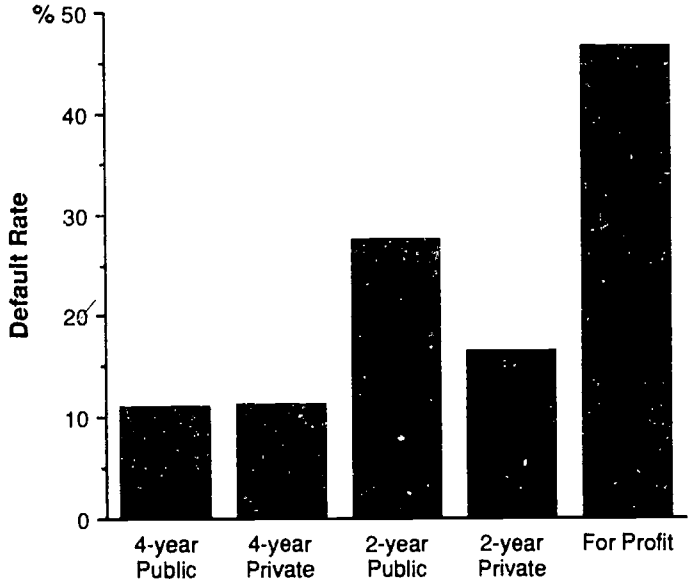
Source: American Council on Education, 1992.

lending institutions have no discretion in making the loans. They are not free to pick and choose among potentially sound borrowers. If banks participate in the program and a student can demonstrate enrollment or acceptance at an accredited institution, the bank is required – under the terms of the statute – to make the loan.

Second, most of the students who default on these loans are among the poorest of the poor. Virtually none of them could obtain an automobile loan, much less an unsecured line of credit or a home mortgage from the very bank that is required to approve their student loans. Many of them probably could not obtain a loan from a finance company, no matter what interest rate they were willing to pay. The painful truth is that credit for the families of these students probably is available only from a pawnbroker.

Third, despite some well-publicized cases of comfortably established college graduates (including doctors and dentists and lawyers) thumbing their

Figure 9
Comparison of 1990 Stafford Default Rates (Dollars) for Students Entering Repayment in 1987, by Type of Institution



Source: U.S. Department of Education, 1992.

Note: Default rates calculated by dividing dollars in default by total dollars in repayment for each type of institution. Sample included 7,096 randomly selected borrowers who entered repayment in FY 1987, with default status as of 9/30/90. Default status: no payment on loan for 180 days.

noses at repayment obligations, it is likely that many if not most of the students in default never completed their education. The Jeremy Coates and Michelle Mullos in the program are not defaulting. Much more likely are high default rates among students who attend school for a year or a semester, or less, leave without a degree or usable certificate, and see little reason to repay a loan that has brought them no tangible benefit.

Despite the huge amount of data on loan defaults, it is maintained for financial and administrative purposes, not to shed light on the educational progress of the borrowers. Nonetheless, the average claim amount of the typical default was less than $3,000 in 1991. Most students are not defaulting on mountains of debt. Indeed, typical cases appear to involve unsophisticated high school graduates, even public assistance recipients, who, lured into for-profit institutions with promises of a cheap (perhaps free) education, leave in days or weeks without understanding that they have borrowed, and their schools have pocketed, money for their tuition.

Costs and Benefits

In the final analysis, nobody expects the 3,300 non-profit colleges and universities in the United States to educate 15 million undergraduates at no cost. Despite the widespread availability of relatively inexpensive undergraduate programs, the changing nature of need in the undergraduate population has forced more and more students to work to meet college expenses and more families to seek financial assistance.

In this context, the long-term effect of constraints on funding for the Pell Grant program is particularly troublesome. Forced to supplement relatively small grants with large loans, students like Kyle Lewis, Rogelio Dominquez, and Ellen Smith – and their families – may begin to wonder if a college degree is worth the effort. As the following chapter demonstrates, there is no doubt that the benefits of college attendance readily outweigh the costs, for both individuals and the nation.

In light of the academic stress and financial hardship frequently associated with college attendance, the obvious question arises: Is a degree worth the time and effort required to attain it? And the inevitable corollary to that question also must be raised: Is the public investment in supporting higher education and providing student financial assistance justified?

There will always be some high school graduates, or dropouts, who succeed financially beyond the wildest dreams of most college degree holders. There will always be some college graduates who are unable to obtain employment in their field of interest. And, inevitably during difficult budget times, public officials will be tempted to pass more of the costs of higher education on to the students on the theory that most of the benefits of a college degree accrue to the graduate. Despite these realities, there can be no doubt that the answer to the two broad questions raised above is "Yes."

A Graduate Scrapbook

Statistics come nowhere close to capturing the difference college degrees make in the quality of individual and societal life. No matter how compelling, data simply cannot bring human and community progress to life. For several years now, the National Association of Student Financial Aid Administrators has celebrated the profession it represents by recognizing the success of graduates who, but for financial aid, probably would never have made it through school. Throughout the dozens of stories reported by NASFAA, the phrases "financial aid made the difference" and "without the aid, I would not be where I am today" are repeated like a refrain. The accomplishments and contributions of these graduates tell their own story.[28]

- The **Marguia** family of Kansas has lived the American dream. Three of the seven children of a steelworker obtained bachelor's and law degrees from the University of Kansas; a fourth broke with family tradition by leaving Kansas with a B.A. to complete law school at Harvard University. They give most of the credit to their parents and their community, but they also give a lot of credit to the financial aid that made their education possible. Janet Marguia volunteers as a mentor for Hispanic teens in Washington, D.C. and helped her boss,

U.S. Representative Jim Slattery, as an official observer of the Nicaraguan elections for the Organization of American States. Her sister, Mary, has built a career as a prosecutor in Arizona and Kansas (specializing in prosecuting sex crimes and child molestation), while serving as a volunteer leader and advancing the interests of Hispanic women. Ramon (from Harvard), an attorney in Kansas City, Missouri, serves as chairman of the Greater Kansas City Hispanic Development Fund, overseeing an endowment of more than $1 million. Carlos, an attorney in Kansas, serves as a district court judge in Wyandotte County and is an active volunteer leader with several local Hispanic organizations. The Marguias are repaying with social and community interest every cent society invested in their futures.

- President George Bush undoubtedly would have an allergy specialist to call on even if federal financial aid did not exist, and Seattle would have a mayor. But President Bush's specialist probably would not be **William Ebbeling**, head of allergy and immunology at the National Naval Medical Center and special advisor to the president's personal physician. And it is unlikely that Seattle's mayor would be **Norman Rice**, one of about 300 elected African-American mayors in the United States.

  Without federal aid, it is not clear that either would be where he is today. Says Dr. Ebbeling: "Student aid really made the difference. Every week in the mail I got a letter with $5 from my parents. They were contributing everything they could. The 1965 Higher Education Act provided the loans. I couldn't conceive of not paying them back. I hope that money now goes to someone else to go to college." Mayor Rice has a similar story to report. He confesses to "flunking out" of college in 1962; by the time he returned six years later, he had a family to support. "I really needed assistance to get a degree. The availability of financial aid is critical because it is an investment in the future." The United States' investment in Norman Rice's future means that Seattle has a mayor committed to strengthening public schools, creating police-community partnerships, and restructuring city government to make it more responsive to citizens.

- Child therapist **Joan Stanton** earned her degree in psychology from Holy Cross College in Massachusetts and was working on her doctorate in 1988 when she reported, "When I applied for college in 1980,

my concern was...whether I would be able to afford it. My father had died, my mother was disabled, and all we had was a large stack of medical bills. But financial aid was there for me. A Pell Grant, scholarships, and student loans have given me a $125,000 education. Without that, I would not be where I am today looking forward to a...career of helping others."

- **Mel A. Tomlinson** has helped bring beauty into the lives of thousands as a dancer with the Dance Theater of Harlem, the Alvin Ailey American Dance Theatre, and the Joffrey Ballet. The chances of that happening were not promising when Mel was a young boy. Mel was one of six children in a very poor family; his father worked two jobs to make ends meet. But financial aid made it possible for Mel to graduate from the North Carolina School of the Arts with a dance diploma and a bachelor of fine arts degree.

- Anglo teachers at **Elmer Yazzie's** Navajo school in New Mexico encouraged him to become a teacher because he would not experience their difficulties learning the customs and culture of his nation. They convinced him to "Put your energy into your own community." With a 1972 bachelor's degree from Calvin College (Michigan), Yazzie returned with energy to burn. An art teacher and marathon runner, Yazzie earned an $11,000 prize for his school in a cereal manufacturer's competition for amateur athletes. Teaching students from grades one to 12, he has completed three major murals in New Mexico, covering 7,600 square feet. One of these recasts Bible stories from the Navajo perspective.

- **Blaine A. Brown** and his twin sister were raised in a foster home along with nine other children. At the age of 18, they were declared independent adults. "I can emphatically say that financial aid (a small scholarship, work-study, and a small loan) was my lifeline to independence." After graduating from Kutztown University (Pennsylvania) Brown joined Allstate Insurance before moving to Armstrong World Industries in 1984. As manager of equal opportunity programs, Brown is responsible for recruitment, personnel placement, and employee development programs.

The data only confirm what should be apparent from these stories. Whether they labor in relative obscurity or rise to positions of

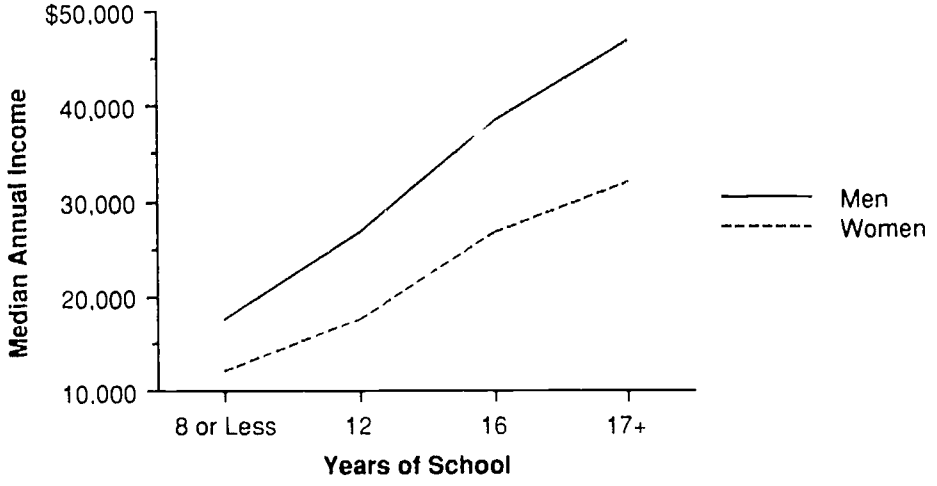
national and international prominence, college graduates enjoy unusual success – as our society normally defines success – and many, if not most, return several times over the investment society has made in their future.

The Financial Returns

Periodically, surveys indicate that college graduates in a particular year face bleak employment prospects. But a college degree is earned for a lifetime, not for the first months after graduation, and the evidence is clear: On average, median income rises to reward more years of schooling for both men and women.[29] Earning a college degree, in fact, is almost as good as holding a winning lottery ticket: In a lifetime of employment stretching out up to 50 years beyond college, the median annual payoff for college graduates compared to high school graduates is impressive. For men, the estimated difference amounts to $12,000 each year; for women the figure is $9,200.

As Figure 10 indicates, the average male high school graduate can add 44 percent to median annual earnings by obtaining a college degree, the average woman 52 percent. Entering graduate or professional school is even

Figure 10
Median 1989 Income of Year-round, Full-time Workers 25 Years and Older, by Years of Schooling Completed



Source: National Center for Education Statistics, 1991.

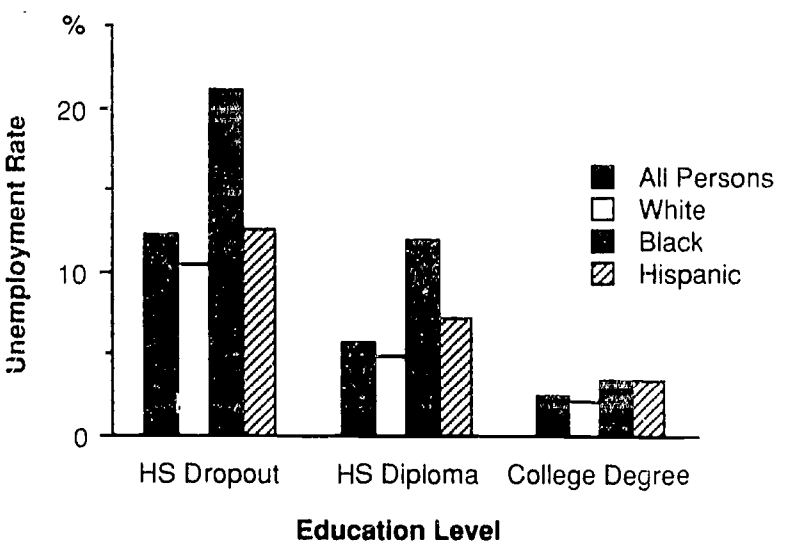
more rewarding financially: Median income for men with 17 or more years of schooling is 78 percent higher than for male high school graduates; for women the reward is 82 percent higher.

Despite the fact that women receive a higher proportional reward for more years of schooling, at no stage in the progression does their median income approach that of men with the same education. In fact, the median income for a women with a college degree is just about the same as that of a male high school graduate. Nonetheless, although inequities remain, women are much better off with a college education than without one.

People with a college degree not only earn more than workers without a degree, they also are far less likely to be unemployed. Figure 11 demonstrates that unemployment declines, for all racial and ethnic groups, as education levels rise. Gender differences in unemployment rates, by education level, are negligible – in some cases favoring women. Across racial and ethnic groups, however, the general proposition holds true: The more years of schooling completed, the lower the unemployment rate in 1990.

Unemployment rates for all high school dropouts averaged about 12.2 percent in 1990. The rate for those with a high school diploma is about one-half the rate for dropouts, and obtaining a college degree cuts the rate in half

Figure 11
Unemployment by Education Level, 1990



Source: National Center for Education Statistics, 1991.

once again. Unemployment rates for African-American and Hispanic degree holders were far higher than rates for white degree holders; however, while unemployment rates for African-American dropouts and high school graduates were, respectively, about 11 points and 7 percentage points higher than the rates for their white counterparts, only 2 points separated white and African-American college graduates.

Returns to the Nation

College graduation clearly provides significant financial benefits to individuals. But it also provides significant benefits to the larger society as well. In qualitative terms, the benefits can described. The Mel Tomlinsons, Janet Marguias, Norman Rices, and Elmer Yazzies of the world put far more back into their communities than they ever take out. Their art, leadership, and community spirit enrich not only their own lives but the lives of all around them. But if these contributions can be described, they cannot be quantified.

In crass terms, however, some of the social contributions of college graduates can be analyzed. Referring simply to Figures 10 and 11 once again, it is apparent that college graduates are far less likely than high school graduates or dropouts to be unemployed and, hence, to turn to units of government for unemployment compensation or health care assistance. The college educated, in short, are likely to make fewer demands on the public purse. It goes without saying that a wage earner with an income approaching $50,000 annually (the median income for college-educated men) is far more likely to be paying the highest marginal tax rates than wage earners with incomes below $30,000 or $20,000, the medians for high school graduates and dropouts, respectively.

Other national outcomes of investment in education, particularly higher education, also deserve attention. Since 1929, increases in the educational attainment levels of the workforce accounted for 27 percent of the growth in national income.[30] Advances in knowledge (better education, research, new technologies, and improved managerial and organizational know-how) accounted for 55 percent. The extension of the opportunity for a college education to millions of American men and women has been an important component of national economic growth throughout this century.

At the same time, households with a college-degree holder make up a significant portion of all households with discretionary income, and the purchasing power of these homes makes them a market of major interest to

producers of upscale, high-profit products and services. In today's free market, college degrees push and pull the economy along: They create both more highly skilled producers of goods and services and more powerful and discriminating consumers.

Sweepstakes or Investment?

Throughout this document, holding a college degree has been compared to holding a winning lottery ticket in order to highlight the financial returns of college attendance. But when all is said and done, entering college bears little resemblance to entering a sweepstakes. Winning a lottery involves little energy and a lot of luck. For every ticket buyer fortunate enough to win, millions lose. Obtaining a degree, by contrast, involves an enormous commitment of energy and very little chance. Three out of four young entrants obtain the degree they seek.

The proper analogy for college attendance is not entering a lottery, but undertaking a blue-chip investment strategy that, over the long haul, pays dividends that appreciate, accumulate, and grow. This strategy has provided the United States with rich rewards. It has produced the skilled workforce essential to a complex, modern economy. It has guaranteed financial stability for millions of American families. It has enriched the quality of life for all. As a new century dawns, the strategy and its dividends become all the more essential.

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Wendy Bresler, ACE's Assistant Director of Publications, prepared the manuscript for publication. The report was designed by Candy Kurz Rogers. Jack Caldwell, ACE's Director of Central Services, oversaw the publishing.

APPENDICES

Appendix A
Total Enrollment in Higher Education (Numbers in Thousands) by Type of Institution and Race/Ethnicity, Fall 1980 to 1990

Appendix B
Approximate Undergraduate Budgets 1991-92

Appendix C
Description and Funding Status of Major Federal Student Aid Programs

Appendix A
Total Enrollment in Higher Education (Numbers in Thousands) by Type of Institution and Race/Ethnicity, Fall 1980 to 1990

	1980	1982	1984	1986	1988	1990	% Change 1988-90
ALL INSTITUTIONS	12,087	12,388	12,235	12,504	13,043	13,710	5.1
White (non-Hispanic)	9,833	9,997	9,815	9,921	10,283	10,675	3.8
Total Minority	1,949	2,059	2,085	2,238	2,400	2,639	10.0
African American (non-Hispanic)	1,107	1,101	1,076	1,082	1,130	1,223	8.2
Hispanic	472	519	535	618	680	758	11.5
Asian American*	286	351	390	448	497	555	11.7
American Indian**	84	88	84	90	93	103	10.8
Nonresident Alien	305	331	335	345	361	397	10.0
FOUR-YEAR INSTITUTIONS	7,565	7,648	7,708	7,824	8,175	8,529	4.3
White (non-Hispanic)	6,275	6,306	6,301	6,337	6,582	6,757	2.7
Total Minority	1,050	1,073	1,124	1,195	1,292	1,450	12.2
African American (non-Hispanic)	634	612	617	615	656	715	9.0
Hispanic	217	229	246	278	296	344	16.2
Asian American*	162	193	223	262	297	343	15.5
American Indian**	37	39	38	40	42	48	14.3
Nonresident Alien	241	270	282	292	302	322	6.6

Source: American Council on Education, *Minorities in Higher Education, Tenth Annual Status Report*, based on data from National Center for Education Statistics, *Trends in Racial/Ethnic Enrollment in Higher Education: Fall 1980 through Fall 1990*. Washington: U.S. Department of Education, December 1991.

Note: Includes estimates for nonresponse and underreporting. Details may not add to total because of rounding.

*Asian American includes Pacific Islanders

**American Indian includes Alaskan Natives

Appendix A (Continued)
Undergraduate Enrollment in Higher Education (Numbers in Thousands) by Race/Ethnicity, Fall 1980 to 1990

	1980	1982	1984	1986	1988	1990	% Change 1988-90
TWO-YEAR INSTITUTIONS* **	4,521	4,740	4,527	4,680	4,868	5,181	6.4
White (non-Hispanic)	3,558	3,692	3,514	3,584	3,702	3,918	5.8
Total Minority	899	987	961	1,043	1,107	1,189	7.4
African American (non-Hispanic)	472	489	459	467	473	509	7.6
Hispanic	255	291	289	340	384	414	7.8
Asian American*	124	158	167	186	199	212	6.5
American Indian**	47	49	46	51	50	54	8.0
Nonresident Alien	64	61	53	53	60	75	25.0
UNDERGRADUATE TOTAL	10,560	10,875	10,610	10,798	11,304	11,863	4.9
White (non-Hispanic)	8,556	8,749	8,484	8,558	8,907	9,231	3.6
Total Minority	1,797	1,907	1,911	2,036	2,192	2,406	9.8
African American (non-Hispanic)	1,028	1,028	995	996	1,039	1,124	8.2
Hispanic	438	485	495	563	631	702	11.3
Asian American*	253	313	343	393	437	485	11.0
American Indian**	79	82	78	83	86	95	10.5
Nonresident Alien	208	220	216	205	205	226	10.0

Source: American Council on Education, *Minorities in Higher Education, Tenth Annual Status Report*, based on data from National Center for Education Statistics, *Trends in Racial/Ethnic Enrollment in Higher Education: Fall 1980 through Fall 1990*. Washington: U.S. Department of Education, December 1991.

Note: Includes estimates for nonresponse and underreporting. Details may not add to total because of rounding.

*Asian American includes Pacific Islanders

**American Indian includes Alaskan Natives.

***The reader should be cautious in interpreting 1990 data for two-year institutions. Approximately 34 percent of two-year data were inputed to adjust for underreporting and nonreporting in five states: California, Florida, Hawaii, Indiana, and South Dakota.

Appendix B
Approximate Undergraduate Budgets 1991-92*

Type of College	Tuition and Fees	Books and Supplies	Room and Board	Trans-portation	Other Expenses	Estimated Total Expenses
Two-Year Public						
Resident	$1,022	$480	**	**	**	**
Commuter	$1,022	$480	$1,543	$902	$966	$4,913
Two-Year Private						
Resident	$5,290	$476	$3,734	$519	$895	$10,914
Commuter	$5,290	$476	$1,529	$786	$925	$9,006
Four-Year Public						
Resident	$2,137	$485	$3,351	$464	$1,147	$7,584
Commuter	$2,137	$485	$1,468	$793	$1,153	$6,036
Four-Year Private						
Resident	$10,017	$508	$4,386	$470	$911	$16,292
Commuter	$10,017	$508	$1,634	$795	$1,029	$13,983

*Data in this table are weighted by enrollment to reflect the budget of the average college student at a particular type of college. Estimates of total expenses are approximations because the number of responding institutions varies with each component.
**Sample too small to provide meaningful information.

Source: Press release on the College Board Annual Survey of Colleges, 1991.

APPENDIX C

Description and Funding Status of Major Federal Student Aid Programs

Where applicable, descriptions of major federal student aid programs in this section reflect changes enacted in the Higher Education Act Amendments passed by Congress and signed by the president in July 1992.

Discretionary Programs

Pell Grants

The Pell Grant program is the foundation of federal student aid programs for undergraduate students. Eligibility based on family financial resources is determined by a formula established by Congress. The maximum grant award in academic year 1992–93 is $2,400 for the neediest student. The size of the award decreases as family income increases. Beginning in academic year 1993–94, the effective maximum eligible income for a typical family of four with one dependent in college is approximately $34,500; the student in this family would receive a minimum award of $400. Approximately 4.2 million students in public, independent, and proprietary institutions currently receive Pell Grants.

Supplemental Educational Opportunity Grants (SEOG)

Supplemental Educational Opportunity Grants are awarded to institutions, which must provide 15 percent matching funds (rising to 25 percent in 1993), and which select undergraduate recipients who have documented financial need. Institutions must give priority to students with exceptional need and to Pell Grant recipients. In academic year 1992–93, approximately 970,000 students will receive SEOGs. The average award will be $700; the maximum grant one may receive is $4,000.

College Work-Study (CWS)

College Work-Study grants are awarded to institutions, which must provide 30 percent matching funds in academic year 1992–93 (25 percent in subsequent years), to pay needy undergraduate, graduate, and professional students for part-time employment. In academic year 1992–93, approximately 984,000 students will receive CWS awards, averaging $945.

Perkins Loans

New federal capital for Perkins Loans (formerly National Direct Student Loans) is awarded to institutions to provide low-interest loans to needy undergraduate, graduate, and professional students. Institutions will provide 10 percent matching funds in 1992–93, 15 percent in 1993–94, and 25 percent in subsequent years. Institutions are required to make loans first to students with exceptional need. The interest rate for new borrowers is 5 percent. Interest is not accrued while the student is in school. Borrowers have up to ten years to repay their loans after leaving school, following a nine-month grace period. As students repay their loans, these funds become part of the institutions' revolving funds to be lent to other needy students. Annually, institutions make more than $700 million in new loans from these revolving funds. Approximately 688,000 students will receive loans in academic year 1992–93, averaging $1,250 each, from revolving funds and newly appropriated federal capital.

Students may borrow up to $3,000 per year as undergraduates, to a maximum of $15,000, and up to $5,000 per year for graduate or professional study, to a maximum of $30,000, including Perkins Loans received during their undergraduate program. At institutions with very low default rates, students may be allowed to borrow up to $4,000 per year as undergraduates, to a maximum of $20,000, and up to $6,000 a year for graduate or professional study, to a maximum of $40,000, including Perkins Loans received during their undergraduate program.

State Student Incentive Grants (SSIG)

State Student Incentive Grant funds are awarded to states to stimulate the creation and expansion of programs to provide grants for needy students and funding for campus-based community service work-study. The program requires 50 percent state matching funds. All states and territories currently participate in this program; however, states vary widely in the amount of support for state grants, with many states considerably overmatching the federal contribution.

A full-time student may receive up to a maximum of $2,500 in academic year 1992–93 and $5,000 per year in subsequent years. Approximately 240,000 students will receive an average of $600 in assistance under this program in academic year 1992–93.

Funding Since 1980

Pell Grant appropriations increased from $2.2 billion in fiscal year 1980 to $5.5 billion in fiscal year 1992, an increase of 150 percent in nominal dollars, and 43 percent in constant dollars. The maximum award, however, increased from $1,750 to only $2,400 (a 37 percent increase in nominal dollars, but a decline of 22 percent in constant dollars).

An increase in the number of very low-income applicants in the early 1980s boosted program costs significantly, and appropriations have been insufficient to raise the maximum Pell award at the same rate as inflation. In fiscal year 1988, several changes in the family contribution schedule went into effect. These changes also increased program costs significantly.

Since 1980, funding for the campus-based programs has not kept pace with inflation:

- Funding for the SEOG program increased from $370 million in fiscal year 1980 to $577 million in fiscal year 1992, an increase of 56 percent in nominal dollars, but a decline of 11 percent in constant dollars.
- CWS program funding increased from $550 million to $615 million in fiscal year 1992, an increase of 12 percent in nominal dollars, but a decline of 36 percent in constant dollars.
- Federal funding for the Perkins Loan program decreased between fiscal year 1980 and fiscal year 1992 from $286 million to $156 million, a 45 percent decline in nominal dollars and 69 percent in constant dollars.

Funding for the SSIG program declined from $77 million in fiscal year 1980 to $72 million in fiscal year 1992, a decline of 6 percent in nominal dollars and 47 percent in constant dollars.

Entitlements

Stafford Loans

Under the Stafford Student Loan program (formerly the Guaranteed Student Loan program), the federal government reinsures loans to needy students that are made by private lenders and insured by state agencies, and provides interest subsidies while borrowers are in school and in repayment. The federal government pays the interest on behalf of student borrowers while the students are in school. The interest rate for continuing borrowers is 8 percent, increasing to 10 percent in the fifth year of repayment. For loans made after October 1, 1992, the interest rate will be variable (Treasury bill rate plus 3.1 percent, with a 9 percent cap).The federal guarantee and interest subsidies are entitlements to the lenders. The return to the lender

varies quarterly, and is pegged to the 91-day "T-bill plus 3.1 percent" rate effective October 1, 1992. However, the federal government will pay a special allowance to the lender if the "T-bill plus 3.1 percent" rate equals more than 9 percent for loans made after October 1, 1992.

Currently, the annual loan limit is $2,625 for first- and second-year students and $4,000 in the third and fourth years. For graduate and professional study, the annual limit is $7,500. Maximum borrowing for undergraduates is $17,250, and for graduate students, $54,750. Students must pay 5 percent of the loan principal to the government as an origination fee.

The 1992 amendments to the Higher Education Act made significant changes to the loan programs. Loan limits were increased for all but first-year students. For loans made after July 1, 1993, students in their second year may borrow up to $3,500, and in the third and fourth years, $5,500 per year, up to a maximum of $23,000 for an undergraduate program. Graduate and professional students may borrow up to $8,500 annually, to a maximum of $65,500. Loan limits will be prorated for students enrolled in programs of less than one academic year.

Students may take up to ten years to repay their loans, and will be offered the option of graduated or income-sensitive repayment. Borrowers who do not qualify for subsidized Stafford Loans may borrow under the program without the in-school interest subsidy. Such borrowers will be charged a 6.5 percent origination fee and insurance premium.

The number of Stafford Loans made annually has increased significantly in recent years. In fiscal year 1980, 2.1 million loans were made, totaling $4.3 billion. In fiscal year 1990, 3.6 million loans were made under this program, totaling $9.7 billion. The average loan increased from $2,086 to $2,690.

Direct Lending Demonstration Program

Beginning July 1, 1994, a Federal Direct Lending Demonstration Program will be established under which a representative sample of institutions having a current total annual loan volume of $500 million will offer loans directly to students under the same terms and conditions as Stafford Loans. The loans will be financed by the federal government, and 35 percent of the institutions in the program will offer students income-contingent repayment terms.

Supplemental Loans and Parent Loans

Two additional federal programs provide a federal guarantee but do not provide federal interest subsidies: Supplemental Loans for Students (SLS), which are available for graduate/professional students and independent under-

graduates; and PLUS loans for parents of dependent students. Students and parents need not demonstrate financial need to qualify for these programs.

Students and parents currently may borrow up to $4,000 per year (the statute was changed in 1989 to reduce the maximum limit for Supplemental Loans for students enrolled in programs of less than one year). The interest rate for borrowers is pegged to 52-week Treasury bill rates plus 3.1 percent adjusted annually, not to exceed 12 percent. If the sum of T-bill plus 3.1 percent equals more than 12 percent, the federal government will pay lenders a special allowance to cover the difference. Borrowers may pay interest quarterly or capitalize it; payments may be deferred while students are in school. Borrowers may take up to ten years to repay their loans.

As a result of the 1992 legislation, loan limits under the SLS program will remain at $4,000 for first- and second-year students, and will be increased to $5,000 per year for third- and fourth-year students, and $10,000 for graduate students. Loan limits will be prorated for students enrolled in programs lasting less than one academic year. Aggregate limits will be $23,000 for undergraduates and $73,000 for graduate students. The PLUS program will allow parents to borrow amounts equal to the cost of education minus other aid. Effective October 1, 1992, the interest rate caps for SLS will be lowered to 11 percent, and for PLUS to 10 percent.

In academic year 1989–90, 273,000 parent loans were made, totaling $877 million, as well as 614,000 supplemental loans, totaling $1.7 billion. The average parent loan was $3,210, and the average supplemental loan was $2,778.

Loan Consolidation

Borrowers with indebtedness in excess of $7,500 may consolidate Stafford Loans, supplemental guaranteed loans, Perkins Loans, and Health Professions Student Loans (HPSL), and the repayment period may be extended up to 30 years, depending on the aggregate debt.

OTHER FEDERAL PROGRAMS

Under the old GI bill, a declining number of eligible Vietnam-era veterans and their dependents continue to receive postsecondary educational benefits. The all-volunteer force has been eligible for educational benefits under the Montgomery GI bill since 1987.

Source: Office of Legislative Analysis of the Division of Governmental Relations, American Council on Education, August 1992.

ENDNOTES

1. *Money College Guide*, 1992 Edition. New York: Time Inc. Magazine Co., 1992.
2. To oversimplify, financial need analysis is designed to provide estimates of how much students and their parents can contribute to college costs. The "expected family contribution" is the amount the family can apply to postsecondary education expenses for one or more children. In this case, since Kyle's brother had graduated, the family was expected to apply what they had been contributing to his education to Kyle's.
3. "Life Winners: Success Stories from Special Services." Gary, Indiana: Indiana University Northwest, 1986.
4. Andrea Atkins, "When the Freshman is 40," *Better Homes and Gardens*, May 1990.
5. Joseph McLellan, "Appreciation: Pearl Bailey, Delegate of Delight," *The Washington Post*, August 18, 1990.
6. "Best College Buys," *Money College Guide*, 1992 Edition.
7. Harold L. Hodgkinson, *A Demographic Look at Tomorrow*. Washington: Center for Demographic Policy, 1992.
8. The appellations "full time" and "part time" were developed on many campuses for billing purposes. Students are often billed as full time if enrolled for 75 percent or 80 percent of a normal course load. Under this definition, it is entirely possible that more than one-half of all students are enrolled for less than a full course load.
9. *Digest of Education Statistics*, Table 197, p. 202. Washington: National Center for Education Statistics, November 1991.
10. Cathy Henderson, *College Freshmen With Disabilities: A Statistical Profile*. Washington: American Council on Education, 1992.
11. C. Dennis Carroll, *College Persistence and Degree Attainment for 1980 High School Graduates: Hazards for Transfers, Stopouts and Part-timers*. Washington: National Center for Education Statistics, 1989.
12. *Digest of Education Statistics* 1991, Table 310, page 314.
13. Unpublished figures from NCES's annual Common Core of Data survey indicate that instructional expenditures per pupil in 1989-90 amounted to 58 percent of total expenditures per pupil in that year. Applying that percentage to total expenditures per pupil in average daily attendance in 1987-88 in public schools ($4,240) yields the estimate of $2,459. Both figures are unadjusted 1987–88 dollars. (See *Digest of Education Statistics*, Table 311, page 315 and Table 159, page 156.)
14. Press Release on the College Board Annual Survey of Colleges, 1991. New York: College Entrance Examination Board, October 16, 1991.
15. College Board Annual Survey, 1991.

16 Unless otherwise noted, all these vignettes were adapted from *Money College Guide, 1992.*

17 Ellen Smith, "CETA Success Story," Letters to the Editor, *The Washington Post,* May 17, 1992.

18 CETA, The Comprehensive Employment and Training Act, was the major federal jobs-training program from 1973 until 1981, when it was replaced by the Job Training Partnership Act (JTPA) and federal funding for employment training was cut by 40 percent.

19 See Appendix B.

20 Holly Hexter, "Students Who Work: A Profile," *Research Briefs,* Vol. 1, No. 2. Washington: American Council on Education, 1990.

21 *Current Population Survey.* Washington: U.S. Bureau of the Census, August 1991.

22 Donald A. Gillespie and Nancy Carlson, *Trends in Student Aid: 1963 to 1983.* Washington: College Entrance Examination Board, December 1983.

23 Alfred D. Sumberg (ed.), *Education Budget Alert for Fiscal Year 1993.* Washington: Committee for Education Funding, 1992.

24 *Pell Grant Status Report,* Table 1, p. 2: Washington Office of Legislative Analysis, American Council on Education, March 1992.

25 Students are not expected to begin repaying loans until out of school. If they miss one monthly payment, they are technically "delinquent" but not in default. The lender is required to apply "due diligence" for up to 180 days to bring the borrower back into repayment status. After 180 days without payment, the lender can declare the student in "default" and collect principal owed from the guarantor, usually a state agency. The guarantee agency is required to pursue the student for 90 days before turning to the U.S. Department of Education for payment.

26 "Updated Tables and Graphs for the FY 1991 Guaranteed Student Loan Data Book." Preliminary figures. Guaranteed Student Loan Branch Analysis Section, U.S. Department of Education, May 1992.

27 Between 1968 and 1990, 7.4 percent of all VA loans were foreclosed, with exceptionally high foreclosure rates in the recession years of 1981 and 1982 (over 20 percent in each year). The Small Business Administration's guaranteed loan program offers a similar history: As of 1991, the program reports a cumulative average default rate of 8 percent of dollars loaned, i.e., defaults on loans, secured with property, to business borrowers judged to be credit worthy.

28 *Student Aid Success Stories.* Washington: National Association of Student Financial Aid Administrators, 1988 & 1990 editions.

29 The median in any series is the point at which half of the numbers lie above the point and half below. In figure 10, therefore, half of male college graduates in 1989 earned more than $38,565 annually, and half earned less.

30 Edward F. Denison, *Trends in American Economic Growth, 1929–1982.* Washington: The Brookings Institution, 1985.

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