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## ABSTRACT

This report gathers national data on trends and participation in continuing higher education. Charts are derived from data collected by the National University Continuing Education Association (NUCEA), as well as by government and private organizations. The five sections of the report contain data on factors leading to growth in continuing higher education, student characteristics, financing, developing human resources, and personal fulfillment. A glossary is also provided. Highlights of the trends reported are as follows: (1) part-time students are the fastest growing population in higher education; (2) tuition costs continue to outpace inflation; (3) continuing education provides increased economic security for adults; (4) there is a shrinking pool of traditional college-age students, while the older population is expanding rapidly; (5) more immigrants with professional credentials are being admitted to the United States; (6) location, program, and cost are the most influential factors affecting part-time students' choice of institution; (7) increasing numbers of baccalaureate students and the majority of master's students are part time; (8) certificate students prefer business and education programs; (9) part-time students rely heavily on employer-provided tuition aid; and (10) continuing education for professionals and personal fulfillment for older adults are factors motivating students to enroll in higher education. (KC)

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# LIFELONG LEARNING TRENDS

a profile of continuing higher education

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**NUCEA** Founded in 1915, the National University Continuing Education Association seeks to promote expanded opportunities and high quality continuing higher education. The Association consists of accredited, degree-granting higher education institutions and comparable non-profit organizations dedicated to postsecondary continuing higher education.

The Association collects and analyzes data to support its public policy objectives and to assist its member institutions' planning efforts. The Association conducts three or four surveys each year. In addition, NUCEA uses secondary data collected by public and private agencies to produce statistical analyses relevant to the field.

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**L I F E L O N G  
L E A R N I N G  
T R E N D S**

**a profile of continuing higher education**

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**NATIONAL  
UNIVERSITY  
CONTINUING  
EDUCATION  
ASSOCIATION**

# F O R E W O R D

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*Lifelong Learning Trends* represents an effort to gather in a single publication national data on trends and participation in continuing higher education. The charts contained in this publication have been derived from data collected by the Association, as well as by government and private organizations.

Many of the charts appearing in the publication have been adapted from *NUCEA News*, the Association's monthly newsletter. Information has been revised and supplemented whenever possible with the most current information available.

J. Noah Brown, NUCEA's director of government relations and public affairs developed and prepared the contents of this publication.

Kay J. Kohl  
Executive Director  
April 1990

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LIFELONG LEARNING TRENDS · III

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I.           FACTORS  
              CONTRIBUTING  
              TO GROWTH

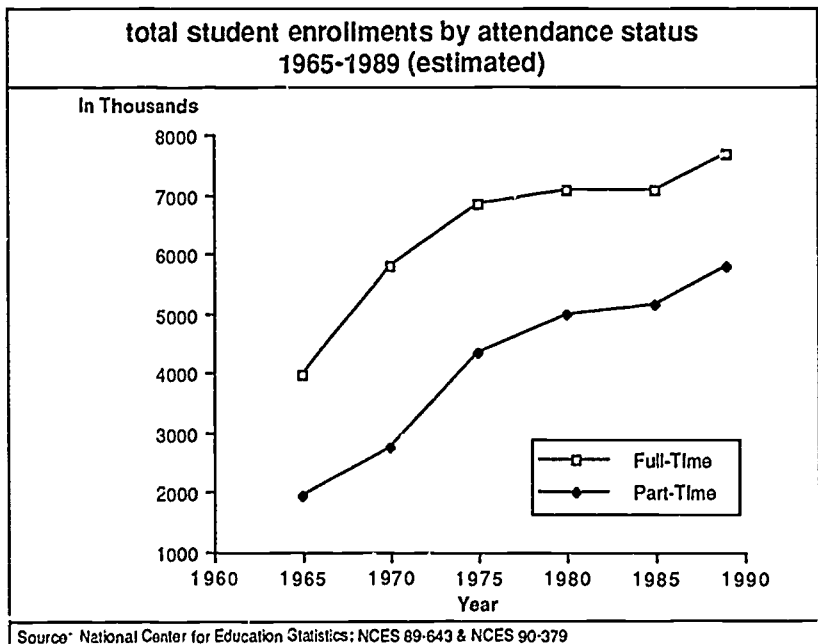


# I. FACTORS CONTRIBUTING TO GROWTH

## part-time students are the fastest growing population in higher education

Part-time students — those who take less than 75 percent of what a given institution considers a full-time credit load — represent the fastest growing population in higher education. Unparalleled growth in the part-time cohort has fueled the growth of continuing higher education programs nationwide as institutions have adapted to meet the needs of these students. Now, nearly half of all students enrolled at all levels in higher education attend part-time.

- Between the years 1965 and 1989, the number of part-time student enrollments in American colleges and universities almost tripled, growing from just under 2 million to almost 6 million.
- Between the 1970 and 1989, part-time enrollments increased by 109 percent, compared to 32 percent for full-time enrollments.
- One-third of all undergraduate-level enrollments are part-time.
- Two-thirds of all master's degree students are part-time.
- Part-time enrollments have helped keep higher education enrollments growing, despite a marked decline in the traditional college-age population (18 to 24 years old) since 1981.





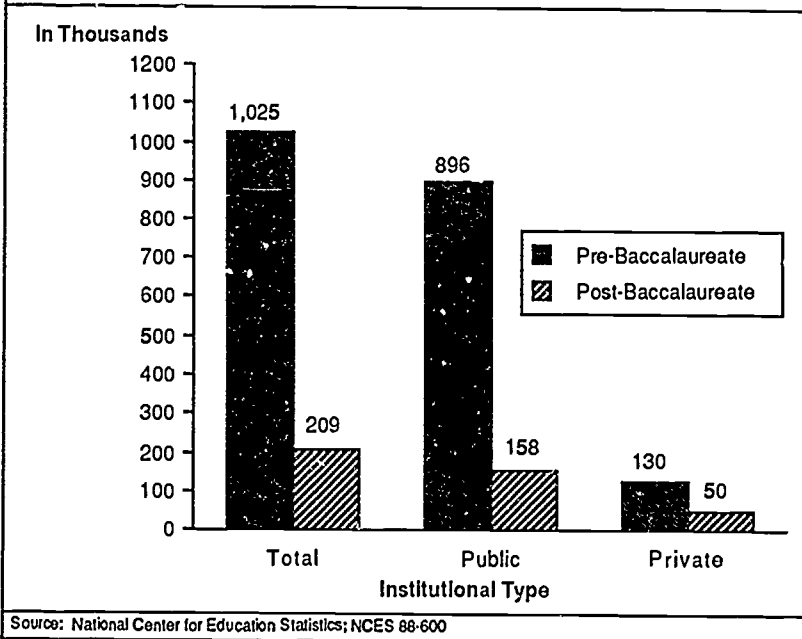
# I. FACTORS CONTRIBUTING TO GROWTH

## unclassified student enrollments are predominantly part-time credit students

In 1985, unclassified student enrollments accounted for 12 percent of all student enrollments. Unclassified students are non-degree seeking students studying for credit, either at the pre-baccalaureate or post-baccalaureate levels. Most unclassified students take classes to complement job skills or to satisfy certification or professional requirements. These students represent an important population in continuing higher education and account for a share of all credit offerings at colleges and universities.

- Eighty-seven percent of unclassified student enrollments at the pre-baccalaureate level were part-time.
- Eighty-five percent of unclassified student enrollments at the post-baccalaureate level were part-time.
- Four times as many unclassified students enroll at public institutions as at private institutions.

part-time unclassified student enrollments by type of institution  
fall 1985

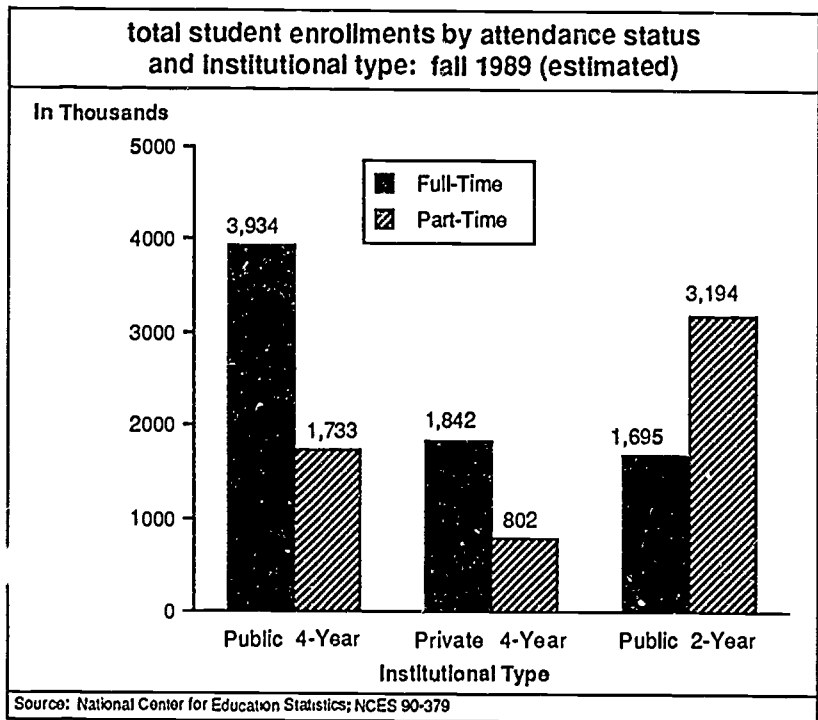


# I. FACTORS CONTRIBUTING TO GROWTH

## most part-time students attend public two-year institutions

During 1989, almost 13.5 million student enrollments were reported by the nation's higher education institutions. Part-time student enrollments totalled an estimated 5.8 million, or more than 43 percent of all higher education enrollments.

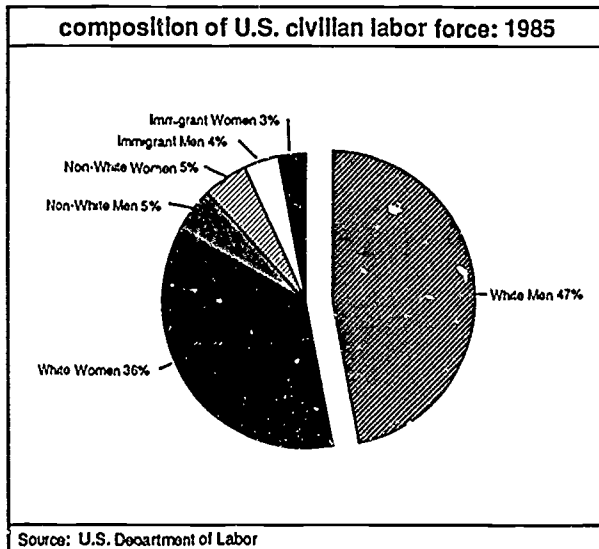
- The majority of part-time student enrollments (55 percent) were in public two-year institutions.
- Total part-time student enrollments at two-year institutions surpassed full-time enrollments by two to one.
- Forty-five percent of the part-time student enrollments occurred at four-year institutions.



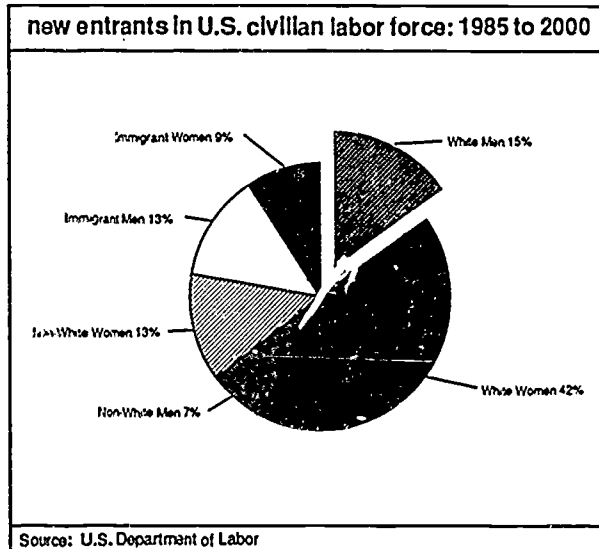
# I. FACTORS CONTRIBUTING TO GROWTH

## composition of U.S. civilian labor force will change dramatically between 1985 and the year 2000

Demographic shifts occurring in the labor force will change dramatically the composition of new hires by the year 2000. These shifts result from varying birth rates in population groups, changing immigration patterns, and women entering the workforce to supplement family incomes or support single income households.



- In 1985, white men accounted for 47 percent of the U.S. civilian labor force. White women constituted 36 percent of the total civilian labor force, with minorities and immigrants comprising the remaining 17 percent.
- By the year 2000, however, profound demographic shifts will reconstitute the civilian labor force. New entrants into the civilian labor force will be dominated by white women (42 percent), followed by new immigrants (22 percent), and minorities (20 percent).
- White males will account for only about 15 percent of the new labor force entrants by the year 2000.

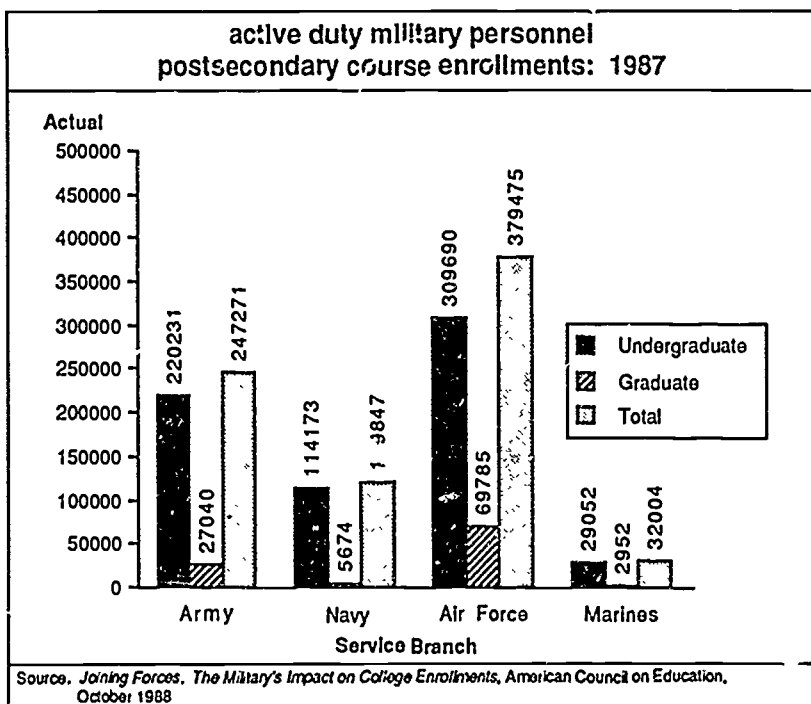


## I. FACTORS CONTRIBUTING TO GROWTH

### military enrollments in voluntary continuing education programs are growing

The Montgomery GI Bill and other tuition incentives have induced more members of the armed forces, both active and reserve, to enroll in college classes and degree programs. In 1987, active military personnel took more than 778,000 courses. A vast international network supports voluntary continuing education programs for the military. There are more than 475 installations around the world offering education programs to service members. More than 600 U.S. colleges and universities are involved in offering specialized educational programs to military personnel.

- In 1987, Air Force personnel accounted for nearly 380,000 total enrollments in higher education programs, the highest for all military service branches.
- The Army registered more than 247,000 total enrollments in higher education programs.
- The Navy accounted for nearly 120,000 total enrollments.
- The Marines registered just over 32,000 total enrollments.



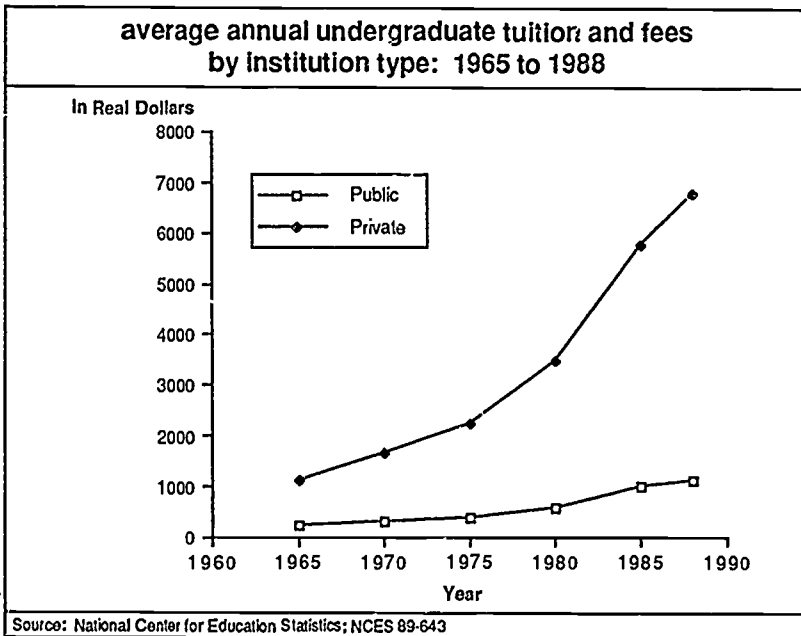
# I. FACTORS CONTRIBUTING TO GROWTH

## tuition costs continue to outpace inflation

Average annual undergraduate tuition and fees at American colleges and universities have risen steadily since 1965. Over the past seven years, the average college tuition costs have risen faster than the annual inflation rate. The increases have been highest at private institutions.

Rising tuition costs and the decline in the purchasing power of student financial assistance have profound consequences for part-time students. The decision to attend postsecondary education is very often measured in economic terms.

- More than half of part-time students work full-time and attend classes during the morning or evening hours.
- Increases in tuition costs strain part-time students because of the scarcity of federal, state, and institutional student financial aid resources available to them.
- The majority of part-time students attend public two-year and four-year institutions where tuition and fees are lower.
- Many part-time students come from low-income families, and though they qualify for Pell Grants and other student aid programs, they find the available monies are not sufficient to permit attendance on a full-time basis.



# I. FACTORS CONTRIBUTING TO GROWTH

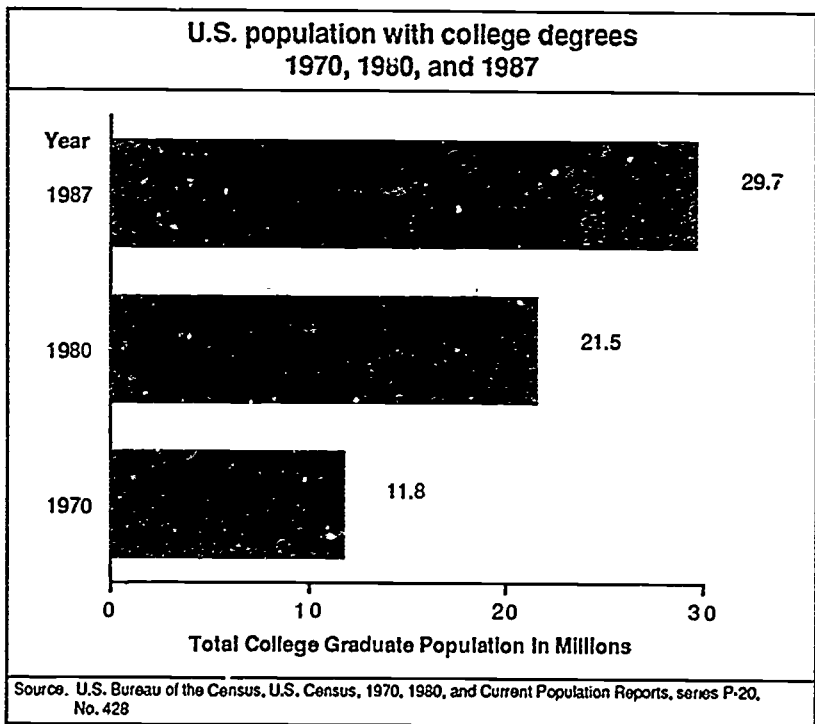
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## More Americans are college-educated than ever before

The dramatic rise in Americans' level of educational attainment during the past two decades is apparent in the number of college graduates in the U.S. population.

The increase in the educational attainment of Americans is helping to spur the enrollments of part-time students at the pre- and post-baccalaureate level. Research shows that there is a consistent relationship between level of educational attainment and the propensity to pursue continuing education opportunities during one's lifetime.

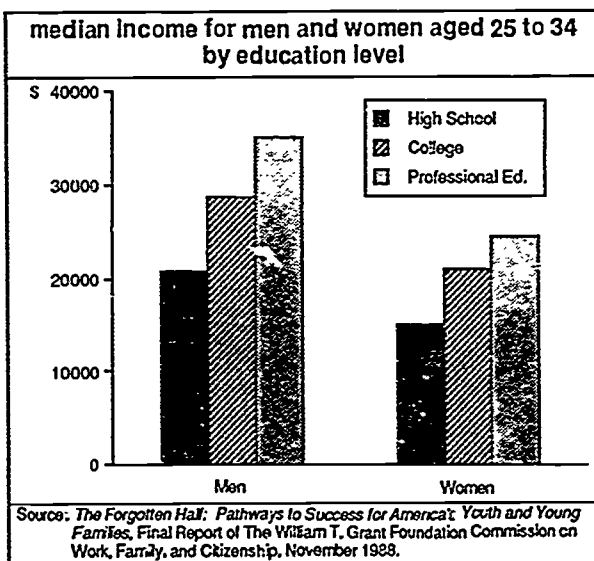
- In 1970, only 11.8 million Americans had a college degree. Seventeen years later, almost 30 million had college degrees.
- Thirty-nine percent of pre-baccalaureate students attend part-time, and more than 65 percent of master's degree candidates are part-time students.
- It is estimated that three out of four jobs today require some postsecondary education.



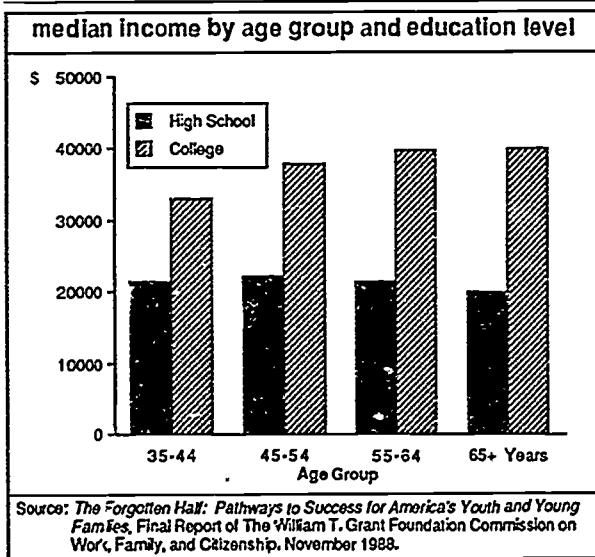
# I. FACTORS CONTRIBUTING TO GROWTH

## continuing education provides increased economic security for adults

Continuing education beyond high school is one of the smartest financial investments a person can make. Individuals who continue their education beyond high school earn higher salaries than those without postsecondary education. The income gap between those with postsecondary education and those without continues to expand over a lifetime.



- Male college graduates between 25 and 34 years of age earn 27 percent more than high school graduates of the same age.
- Female college graduates between 25 and 34 years of age earn 28 percent more than high school graduates of the same age.
- The differences in income grow over time; college graduates between 35 and 44 earn 154 percent more than individuals with high school diplomas; the difference climbs to nearly 200 percent in the 65 and over group.



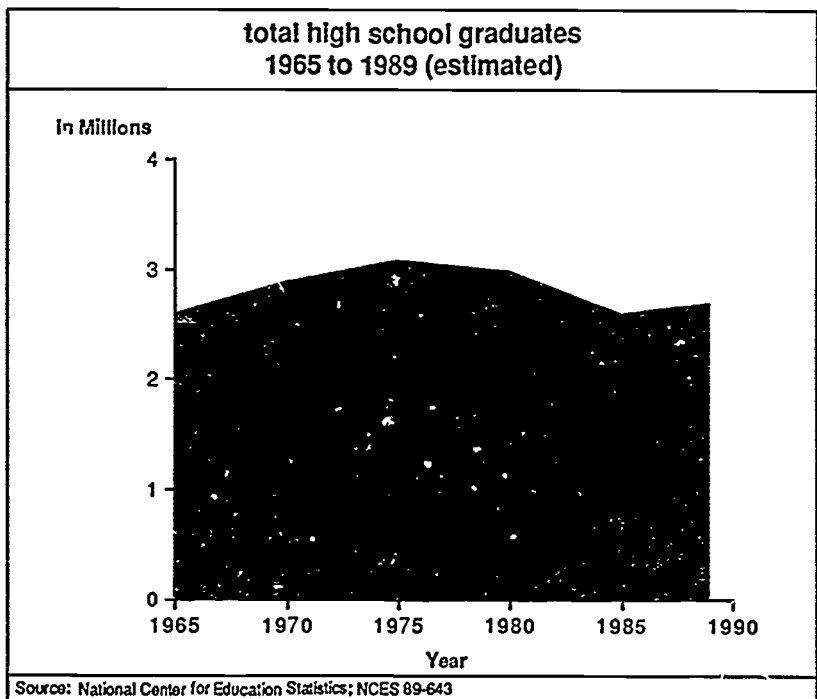
# I. FACTORS CONTRIBUTING TO GROWTH

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## a shrinking pool of traditional college-age students

Higher education enrollments increased steadily between 1975 and 1985, in spite of a significant decline in the college-age population (aged 18 to 24). Two major factors account for the expansion of higher education enrollments. First, a greater percentage of high school graduates are going on to college than at any time in the past. Second, the number of older, part-time students enrolling in higher education has increased dramatically during the same period.

- The number of high school graduates each year has declined markedly since 1976. The all-time high was reached in 1976 when 3,155,000 students graduated from high schools nationwide.
- The number of high school graduates climbed from 2.6 million in 1965 to more than 3.1 million in 1975. Between 1975 and 1985, however, the number of high school graduates dropped again to 2.6 million per year, representing a complete reversal in a ten-year period.
- The number of annual high school graduates in 1989 is estimated to be above 2.7 million.



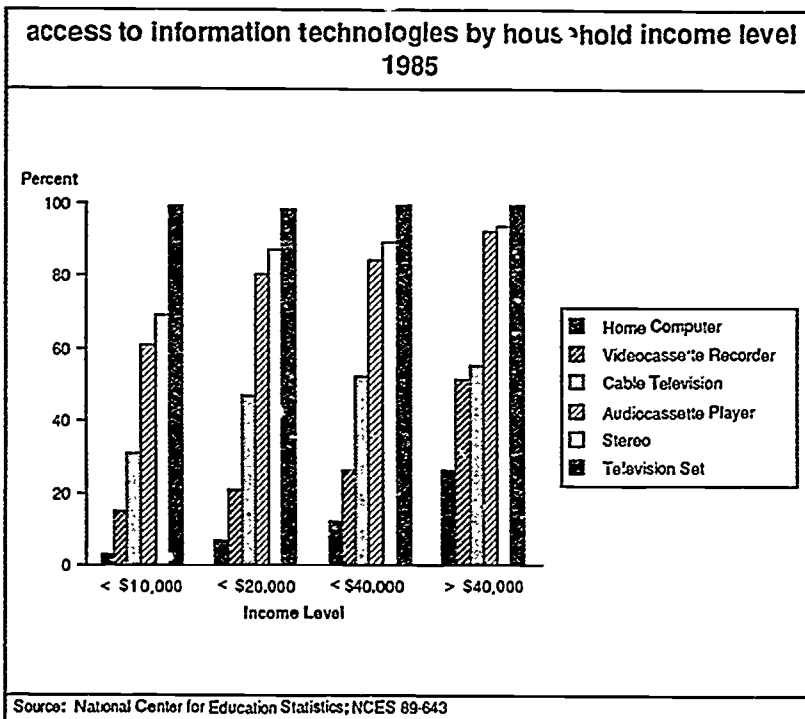


## I. FACTORS CONTRIBUTING TO GROWTH

### virtually every American home has access to instructional technology

With the continuing development and use of instructional technologies in higher education, more individuals have an opportunity to learn at home. Instructional technologies can best serve individuals who reside far away from a college campus, or who are unable to leave home to participate in postsecondary education. Most American homes today are technically equipped to monitor such educational programs.

- Almost every home, regardless of income, has a television set.
- Roughly half of homes in 1985 were served by cable television.
- Most homes have audio cassette recorders.
- The penetration rates for video cassette recorders is continuing to climb past 65 percent.



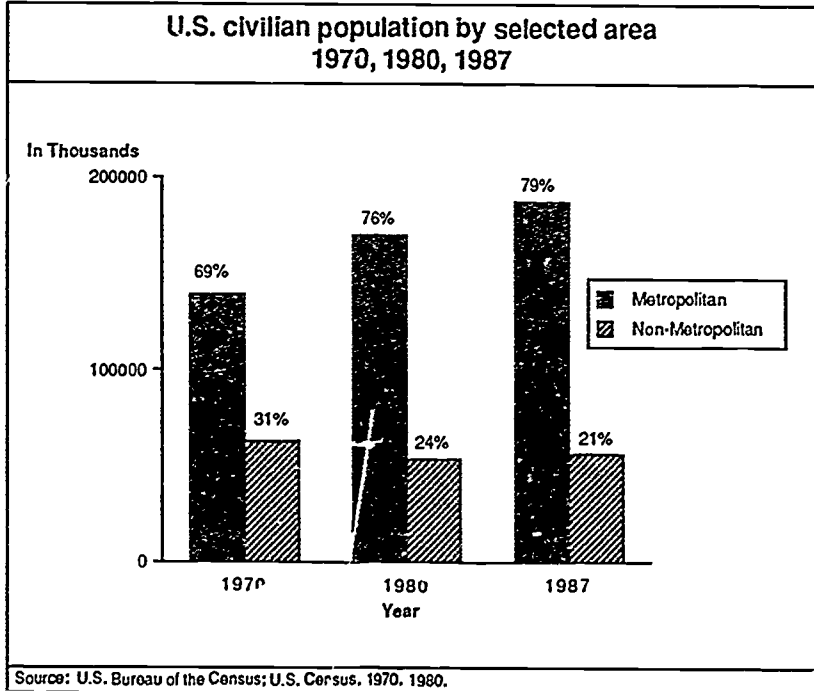
# I. FACTORS CONTRIBUTING TO GROWTH

## the urbanization of America

More Americans live in metropolitan areas than ever before. Population is measured in terms of standard metropolitan statistical areas (SMSA), or areas which contain at least one central city of 50,000 inhabitants or more.

The population shift from non-metropolitan areas to larger towns and cities has prompted many colleges and universities to develop off-campus learning centers in downtown and suburban locations to be closer to prospective adult students. The increasing centralization of new jobs and workers in metropolitan areas has contributed to the growth of continuing education programs, as individuals retrain or prepare for newly created jobs. Jobs in the service sector are most affected by rapid growth of technologies and specialized knowledge areas.

- In 1970, slightly less than 70 percent of the nation's population lived in metropolitan areas as defined by the U.S. Bureau of the Census.
- By 1987, that figure had risen to nearly 80 percent.



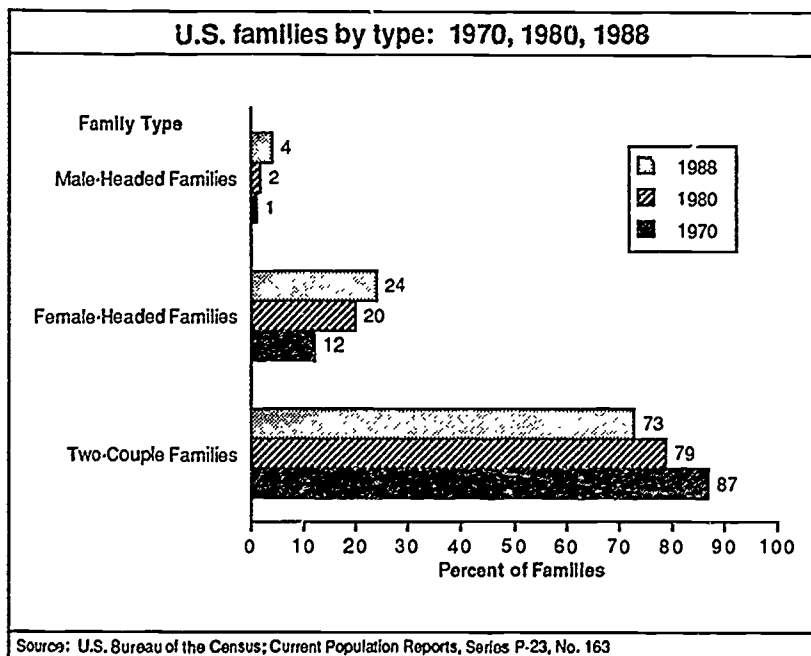
## I. FACTORS CONTRIBUTING TO GROWTH

### more households are headed by single parents

The number of American families headed by single parents has increased substantially since 1970. Unmarried teenagers head many of these families. Other single parent households are headed by divorced or widowed parents. Almost 90 percent of single parent families are headed by women.

Single parent families are often caught in a "double-bind" situation. These men and women must work to support families, yet a lack of education prevents many of them from qualifying for much more than minimum wage jobs. This places many single parent households at or below the poverty line. For working fathers and mothers with heavy family responsibilities, part-time study is often their only chance to prepare for higher paying jobs that promise a measure of economic security.

- Single parent families account for more than 27 percent of all families with children under 18 years of age, more than twice the proportion in 1970.
- Almost 24 percent of families are headed by women; male single-head-of-households accounted for nearly 4 percent.
- Among whites, 22 percent of all families are headed by single parents; among blacks, about 59 percent; and among Hispanics, 34 percent.

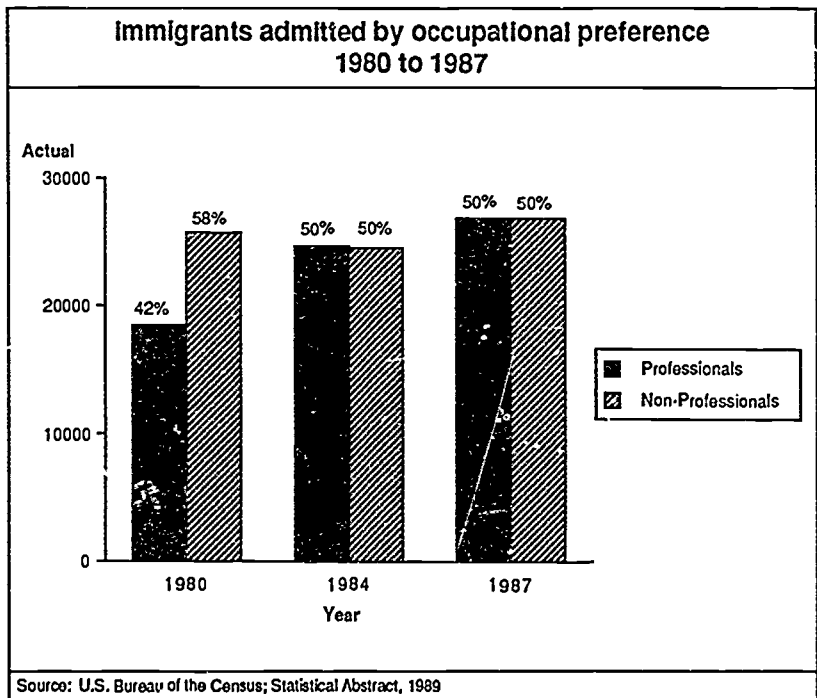


# I. FACTORS CONTRIBUTING TO GROWTH

## more immigrants with professional credentials are being admitted to the United States

In 1987, approximately 600,000 immigrants were granted admission to the United States. That figure represents slightly more than a 13 percent increase over 1980. Of the immigrants admitted in 1987, 53,873 were given preference because they were classified as "professional or highly-skilled," or "needed skilled or unskilled" workers. The split between the two categories was even in 1987. In 1980, the split favored the "needed skilled or unskilled" category 58 percent to 42 percent for "professional or highly-skilled."

The majority of immigrants admitted in 1987 (547,643) were given preference because they had family in the United States or were political refugees. Forty-three percent of the immigrants admitted to the U.S. in 1987 came from Asian countries, the majority from the Philippines and South Korea. North Americans (including Mexicans) accounted for 36 percent; Europeans, 10 percent; South Americans, 7 percent; Africans, 3 percent; and other nationalities accounted for less than 1 percent.

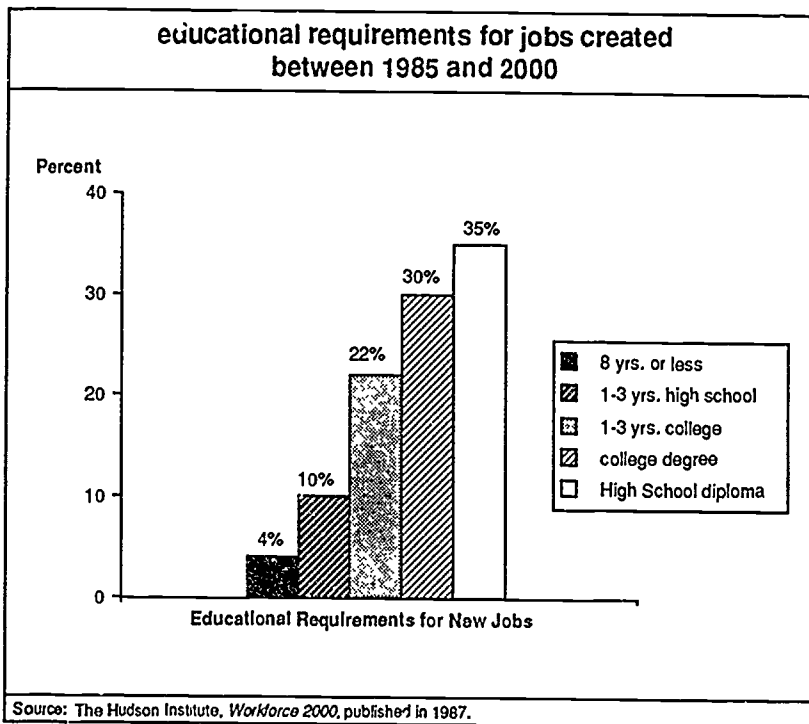


# I. FACTORS CONTRIBUTING TO GROWTH

## educational requirements for new jobs are increasing

Of the new jobs created between 1985 and the year 2000, 52 percent will require education beyond a high school diploma. Thirty-five percent of new jobs will require a high school diploma, and only 14 percent of new jobs will be available to those without high school diplomas.

Of the new jobs created, 30 percent will require a college degree. It is estimated that three out of four jobs require some postsecondary education. Those people already in the workforce, as well as new entrants, will need higher levels of education and training in order to compete effectively.

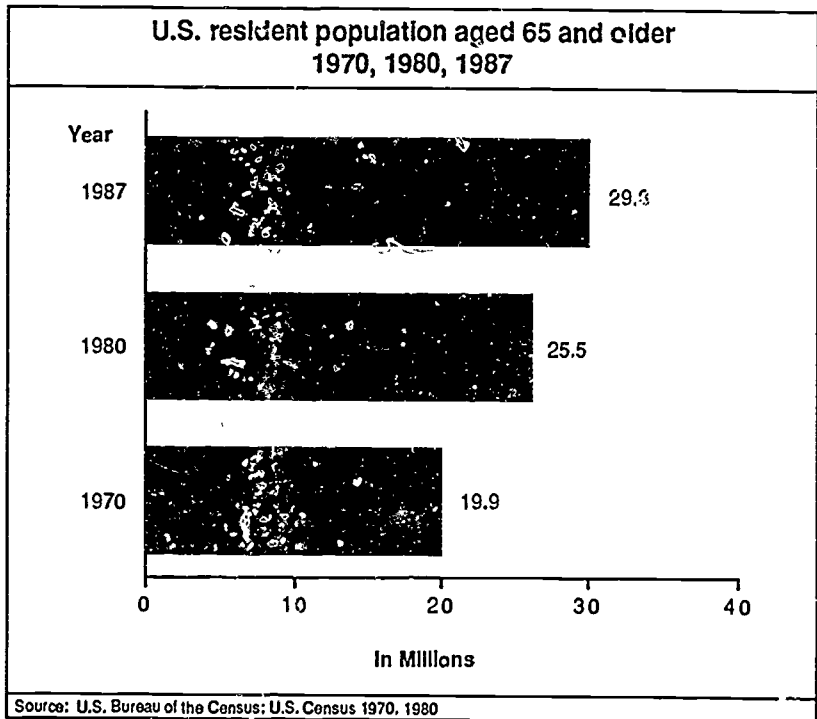


# I. FACTORS CONTRIBUTING TO GROWTH

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## older adult population is expanding rapidly

In 1987, nearly 30 million Americans were 65 or older. The number of older adults has increased markedly since 1970. Almost ten million more adults 65 years and older have been added to the census rolls since 1970. Projections indicate that these trends will continue into the next century. As the "baby boomers" age, the ranks of the 65 and older population are expected to continue to increase rapidly. This growth is affecting profoundly every aspect of American society, from what type of products are sold to how people spend their leisure time. The demand for continuing education programs for older adults is growing every year. Older adults constitute a vast resource of intellectual and creative human capital.



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## II. STUDENT CHARACTERISTICS

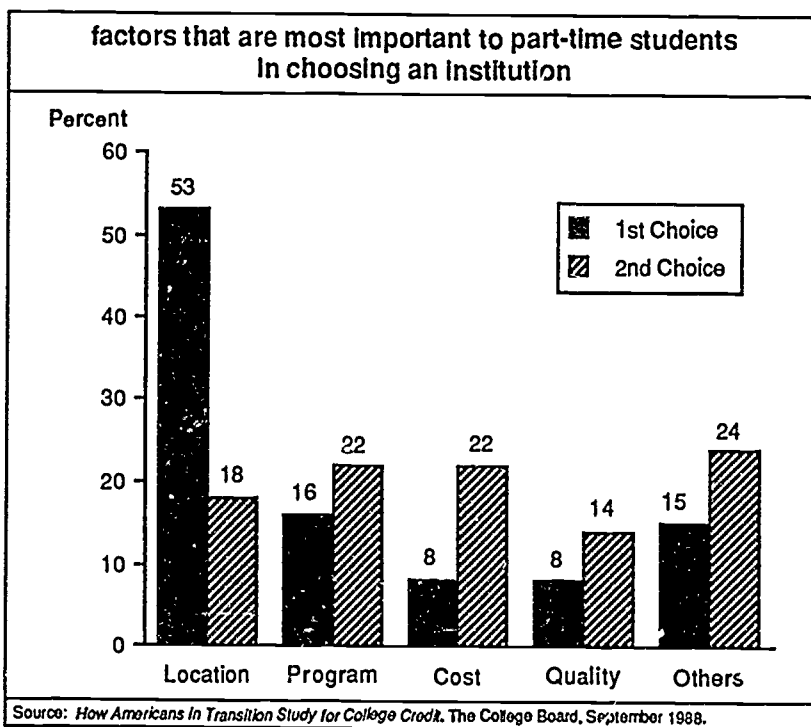


Photo credit: Gary Conner

## II. STUDENT CHARACTERISTICS

### factors influencing a part-time student's choice of institution

More than half of adult part-time students surveyed by The College Board in 1986 considered location to be the most important factor influencing their choice of institution. Eighteen percent ranked location as the second most important factor in choosing an institution. About 40 percent of students pointed to the curriculum as their first or second most important determinant; 30 percent cited cost; and 20 percent identified academic quality as the prime consideration in choosing a college campus.



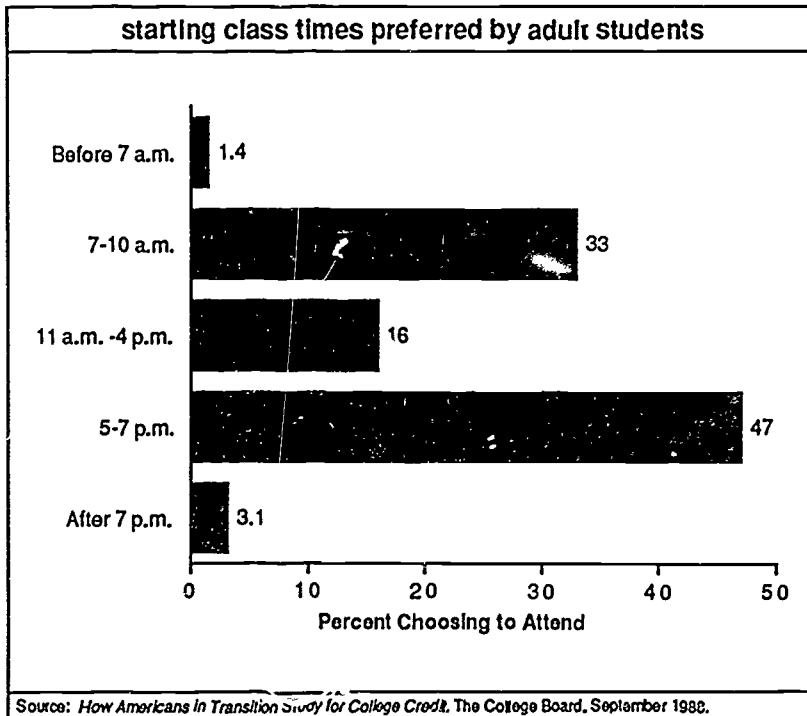


## II. STUDENT CHARACTERISTICS

### adult students prefer early morning or evening classes

Accommodating busy schedules plays a critical role when adult students select classes. More than one-third of adult students surveyed by The College Board in 1986 chose classes that began between 7 and 10 a.m. Nearly one-half of adult students, however, chose classes that started between 5 and 7 p.m. Few students chose to take classes that started at mid-day or after 7 p.m.

The fact that most adults prefer classes in the morning and late afternoon implies that these students fit their class time around work and family schedules.

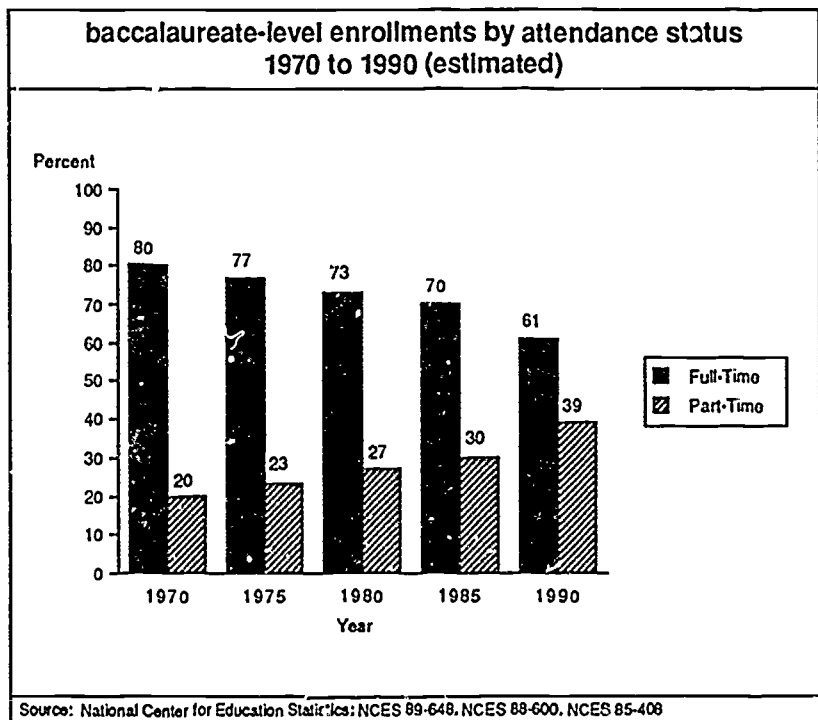


## II. STUDENT CHARACTERISTICS

### increasing numbers of baccalaureate students are part-time

The number of part-time students working toward their baccalaureate degree has risen steadily since 1970. Greater numbers of women and minorities are enrolling in baccalaureate programs than ever before. Many of these students are choosing part-time baccalaureate degree programs.

- In 1970, full-time baccalaureate enrollments outnumbered part-time enrollments by four to one.
- Currently, it is estimated that 39 percent of all baccalaureate-level enrollments are part-time. This figure represents a 19 percent increase in the ratio of part-time to full-time since 1970.

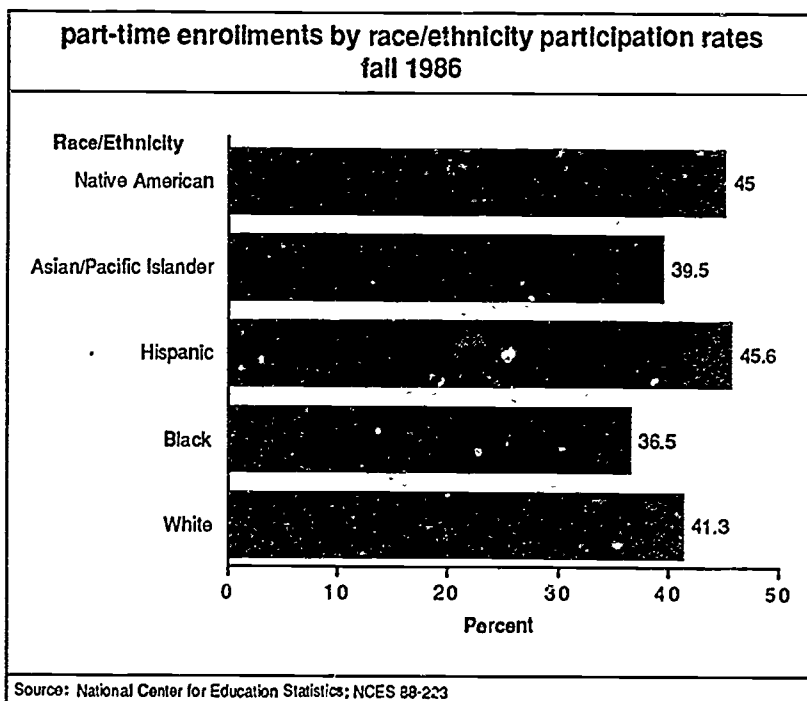


## II. STUDENT CHARACTERISTICS

### nearly half of all minority college students enroll part-time

Enrollment patterns of minority students closely resemble those of white students. There are slight differences, however, in the enrollment patterns of different racial/ethnic groups.

- Forty-five percent of Native Americans and Hispanics were enrolled part-time in 1986.
- Nearly 40 percent of Asians and Pacific Islanders were enrolled part-time.
- Some 37 percent of black enrollments were part-time.
- White part-time enrollments were just over 41 percent in 1986.



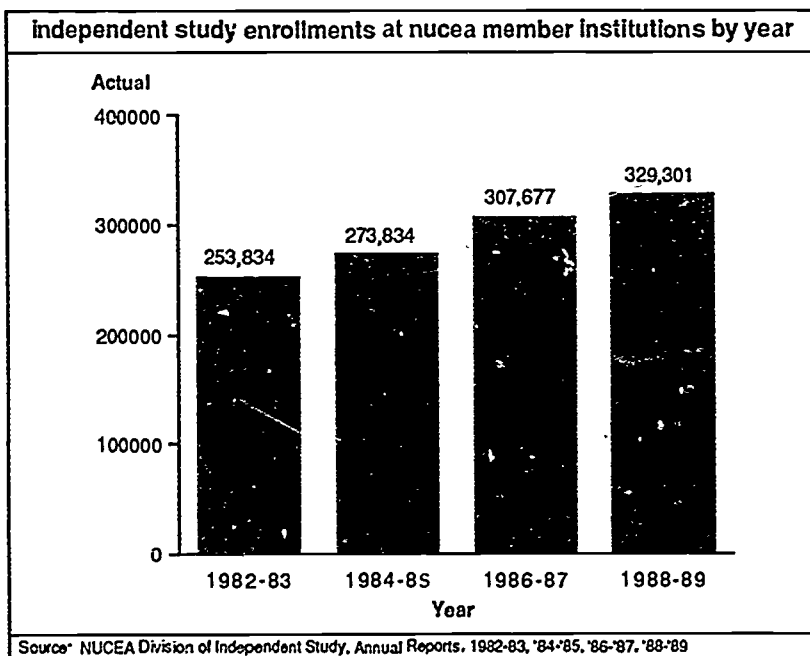
## II. STUDENT CHARACTERISTICS

### independent study enrollments are increasing

Independent study program enrollments grew at four-year higher education institutions during the 1980s. These programs offer college level credit and non-credit courses, as well as high school diploma programs by correspondence. A number of institutions also offer external degrees, which can be completed with a minimum of time on campus.

Independent study is recognized as an indispensable part of American higher education. Students engaged in independent study use not only correspondence instruction, but also television, audio cassette tapes, and computer-assisted learning. Independent study opportunities are sought by diverse student constituencies. Military personnel stationed in remote locations find independent study to be a viable option, as do students in small rural high schools seeking advanced courses, and students who are homebound for various reasons. For students who hold full-time jobs that require frequent re-location and/or travel, independent study offers a means to earn degree-credit and advance their careers.

- Independent study enrollments at NUCEA institutions grew by more than 30 percent overall between 1982-83 and 1988-89.
- The largest single year increase experienced by NUCEA member institutions was between 1984-85 and 1986-87, when independent study enrollments climbed by more than 12 percent.



## II. STUDENT CHARACTERISTICS

### certificate students prefer business and education programs

American colleges and universities awarded nearly 11,000 certificates to students with baccalaureate degrees in 1986-87. Certificates are awarded to students who have acquired certain proficiencies in a specialized area of study through an educational program. Depending on the subject area, certificate programs generally include a number of required courses and a few electives. Some programs also require a practicum or internship.

- Sixty percent of certificates were awarded to students with baccalaureate degrees, and 40 percent to students with master's degrees.
- Roughly 74 percent of certificate programs beyond the baccalaureate level were in business management or education programs.
- The table shows the number of post-baccalaureate certificates awarded by program popularity.

**college/university post-baccalaureate certificate awardees  
1986 to 1987**

Rank	Program Category	Total	Men	% Men	Women	% Women
1	Business & Management	4,647	3,989	85	658	15
2	Education	3,596	1,228	34	2,341	66
3	Theology	504	353	70	151	30
4	Health Sciences	264	117	44	147	56
5	Liberal/General Studies	205	109	53	96	47
6	Social Sciences	187	117	62	70	38
7	Multi/Interdisciplinary Studies	135	81	60	54	40
(tie)	Psychology	135	40	29	95	71
8	Computer/Information Sciences	133	63	47	70	53
9	Law	126	52	41	74	59
10	Allied Health	124	22	17	102	83

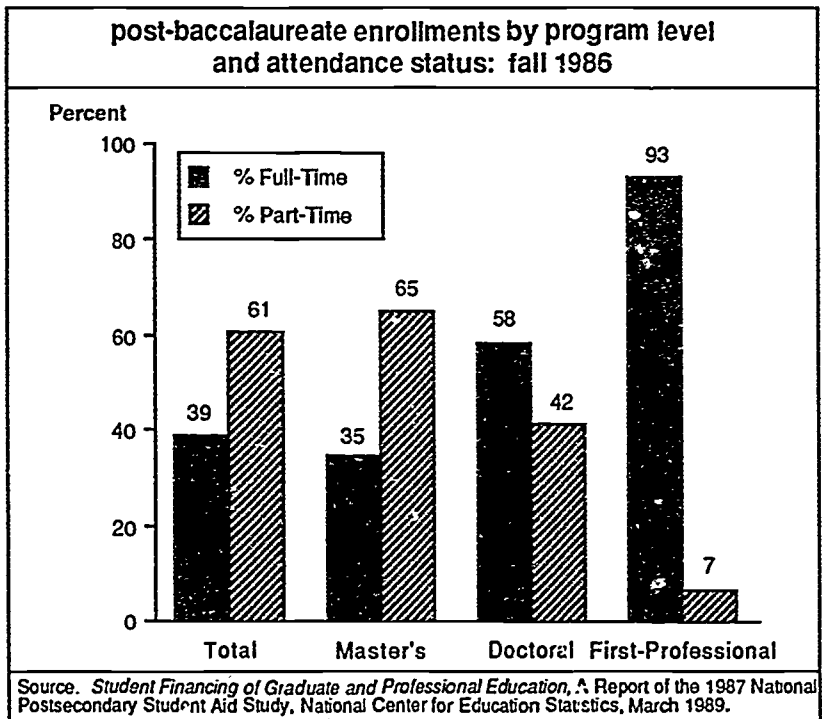
Source: National Center for Education Statistics, NCES 90-322.

## II. STUDENT CHARACTERISTICS

### majority of master's degree candidates are part-time graduate students

Most student enrollments at the master's level were part-time in 1986. Approximately 25 percent of all post-baccalaureate degrees are at the master's level. Increasingly, greater numbers of adults are going back to school to earn master's degrees. The value of post-baccalaureate level study is increasing every year as a greater number of new jobs require higher level knowledge and skills.

- Sixty-five percent of master's candidates attended part-time in 1986.
- Forty-two percent of all doctoral candidates were part-time students.
- Virtually all professional degree seeking students attend full-time.



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### III. FINANCING STUDY

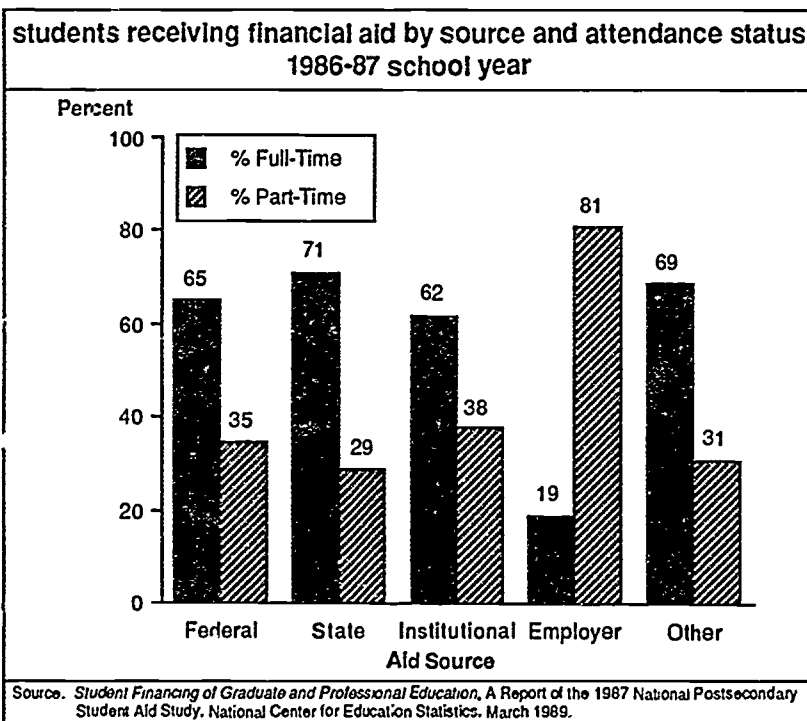


Photo credit: Suzi Fitzhugh

**part-time students rely heavily on employer-provided tuition aid**

The nation's part-time students rely extensively on their employers for tuition assistance to pursue their postsecondary studies. Of all the students who reported receiving assistance from their employers, 81 percent were enrolled on a part-time basis. Only one-third of all part-time students during the 1986-87 school year reported receiving aid from other sources.

- Only 35 percent of all part-time students receive aid of any kind from federal student aid programs.
- State-based tuition aid is awarded to only 29 percent of all part-time students.

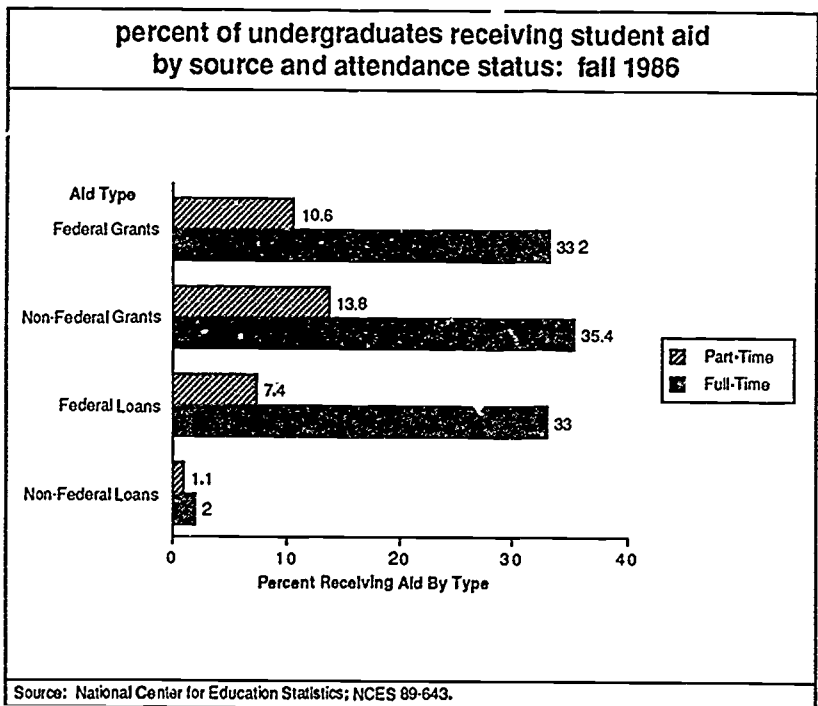




**part-time undergraduates receive little tuition assistance**

The majority of part-time undergraduate students use their own financial resources to pay for college. In many instances, part-time students are ineligible to receive aid at the state and institutional level. While part-time students are eligible for federal aid, few students actually receive any help from federal grants or loans.

- Slightly more than 10 percent of part-time undergraduates received federal grant assistance in 1986.
- The situation was only marginally better for non-federal grants, with almost 14 percent of part-time undergraduates receiving assistance.
- Few part-time undergraduates take out loans for college in comparison to full-time students.

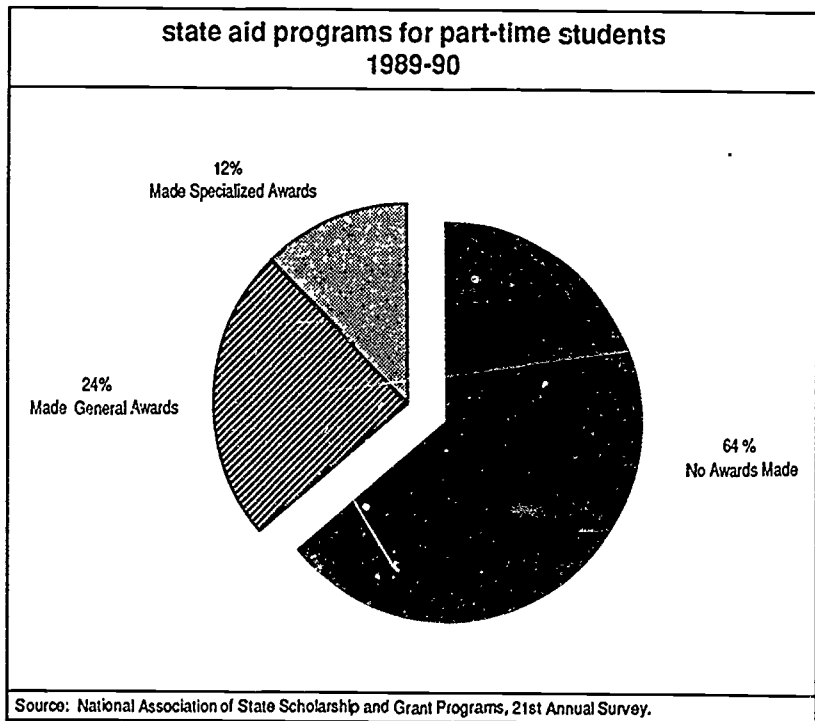


**states implement financial aid programs for part-time students**

In the late 1980s, some states enacted significant financial aid programs specifically targeted for part-time students. Currently, six states (Connecticut, Massachusetts, Michigan, Minnesota, New York, and Vermont) offer such special financial aid programs for part-time students. By comparison, only two states offered such programs in 1986.

Eighteen states reported giving part-time students tuition assistance during 1989-90 year. Despite these gains, part-time students receive little state-based aid to pay for college.

- Sixty-four percent of states did not report aid to part-time students.
- Part-time students received tuition aid from regular state programs in 24 percent of the states.
- Part-time students received assistance from programs designed specifically to assist needy part-time students in only 12 percent of the states.

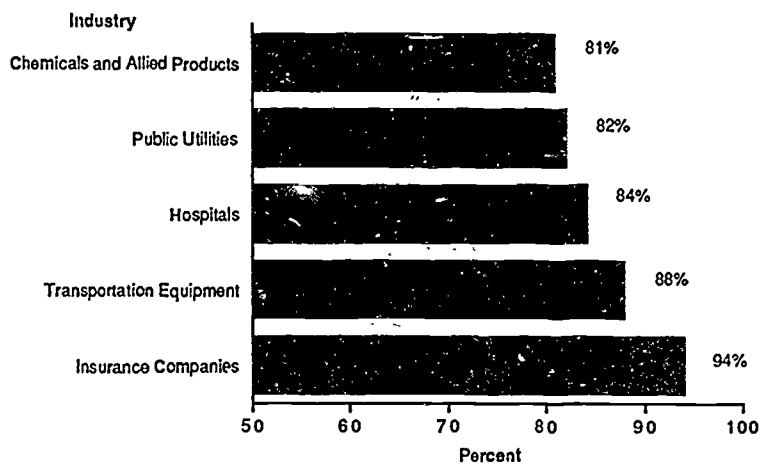


**top five industry providers of employee tuition assistance**

Employee educational assistance is a benefit provided by more than 80 percent of the firms in the following industries: chemical and allied products; public utilities; hospitals; transportation equipment; and insurance. These five industries employed more than 13.3 million workers during 1986.

These data suggest where some of the demand for continuing education may come from in the future. Employees receiving aid from those five industries may pursue course work in concentrated areas, such as business, chemical engineering, health administration, financial planning, and a dozen or more related fields. Part-time students rely extensively on employer-provided tuition aid in order to pursue their postsecondary studies.

**percentage of firms, by type, providing educational assistance to their employees in 1987**

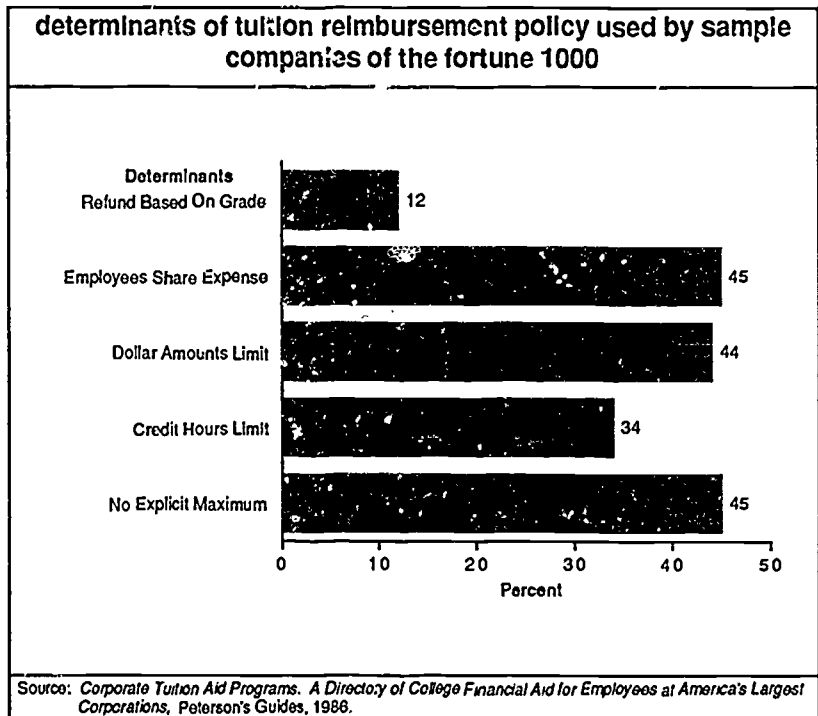


Source: Employee Benefits: 1988 Edition; United States Chamber of Commerce, 1988.

**most companies provide tuition reimbursement with few restrictions**

Recent studies indicate that employer-provided tuition assistance programs are seldom overly restrictive. Employees receiving tuition assistance from their employers constitute the greatest share of part-time students receiving aid of any kind.

- Forty-five percent of the companies have no explicit maximum reimbursement amount for employees.
- Employees in 34 percent of the companies are subject to total credit hour restrictions.
- Forty-four percent of the companies set dollar amounts for tuition reimbursement.
- Employees share tuition costs at 45 percent of the companies
- Only 12 percent of the companies set minimum grade point averages as a condition of tuition reimbursement.



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# IV. DEVELOPING HUMAN RESOURCES

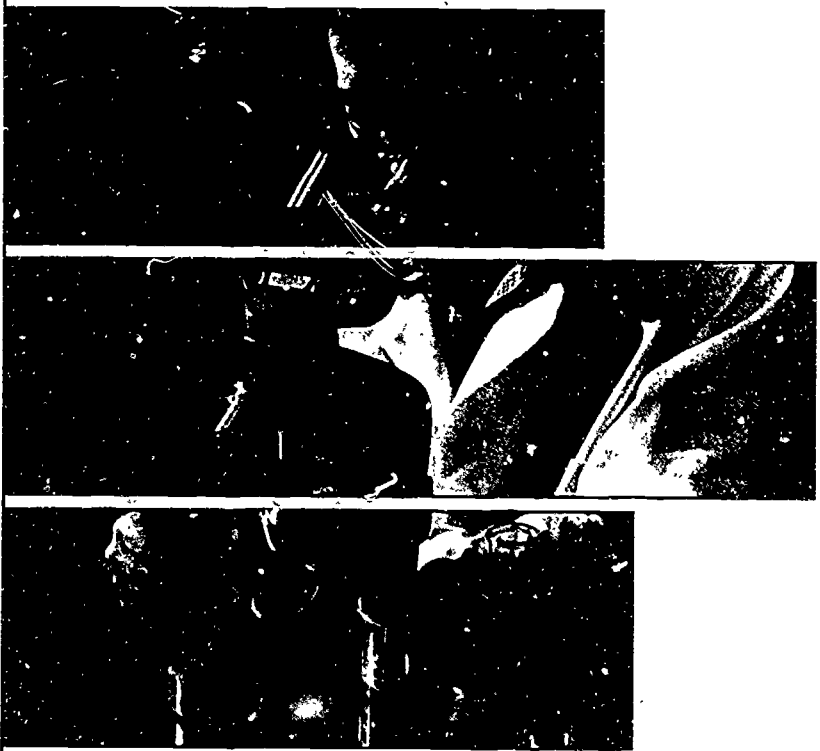


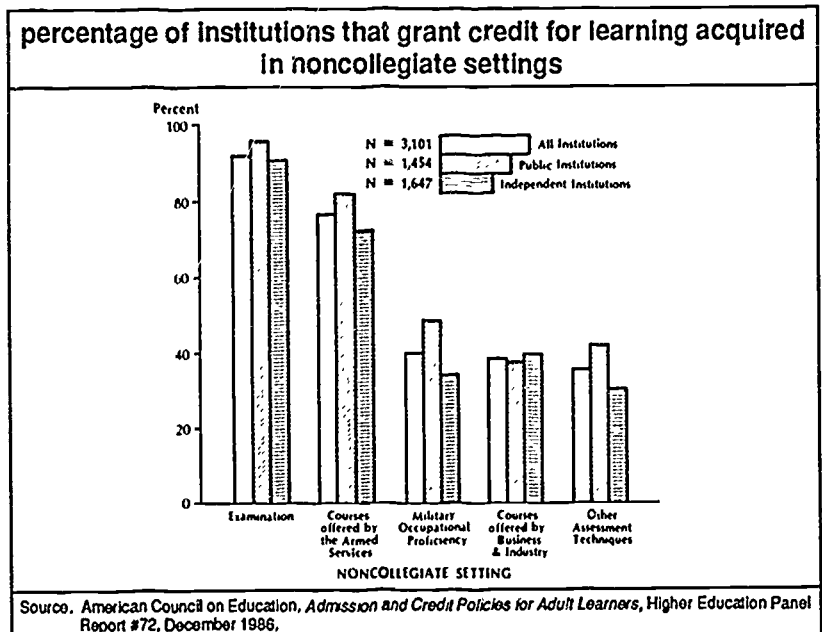
Photo credit: Gary Conner

## IV. DEVELOPING HUMAN RESOURCES

### most institutions use examinations in awarding credit for prior learning

Recognizing the value of today's diverse learning opportunities, 97 percent of the nation's higher education institutions have developed policies to award credit for learning acquired in non-collegiate settings. During 1984-85, more than 166,000 students were granted credit for extra-institutional learning at approximately 3,100 colleges and universities.

- Ninety-three percent of the nation's higher education institutions award credit for prior learning if students take examinations to assess their knowledge and skills. The majority of institutions use The College Board's College-Level Examination Program (CLEP) to assess students' skills.
- Seventy-seven percent of the colleges and universities grant credit for course work completed while in the military. Only 40 percent grant credit for occupational proficiency gained in the armed services.
- Nearly 40 percent of the institutions grant credit for courses offered by businesses and industry.
- Better than 33 percent grant credit through the use of alternative assessment techniques to gauge students' skills.

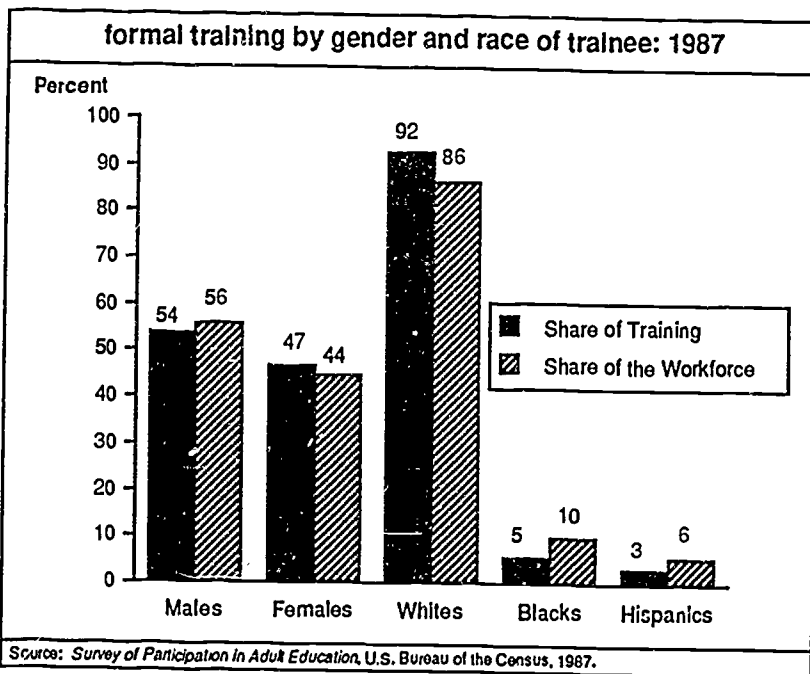


## IV. DEVELOPING HUMAN RESOURCES

### minorities receive disproportionately low share of formal training

An increasing number of new jobs created by the year 2000 will go to minority workers. The skills needed to perform these new jobs will be more complex and sophisticated than in times past. The majority of new jobs will require some form of postsecondary education. Currently, most formal training is targeted at white workers. Many workers receive training through their employers on the job, either during working hours or during non-working hours. The training is either provided in-house by the employer, or is acquired through an educational provider such as a college or university.

- While whites constituted roughly 86 percent of the labor force in 1987, they accounted for nearly 92 percent of formal training.
- Blacks represented 10 percent of the reported labor force, yet only 5 percent of working blacks received formal training.
- Hispanics represented 6 percent of the reported labor force, yet only 3 percent of working Hispanics received formal training.



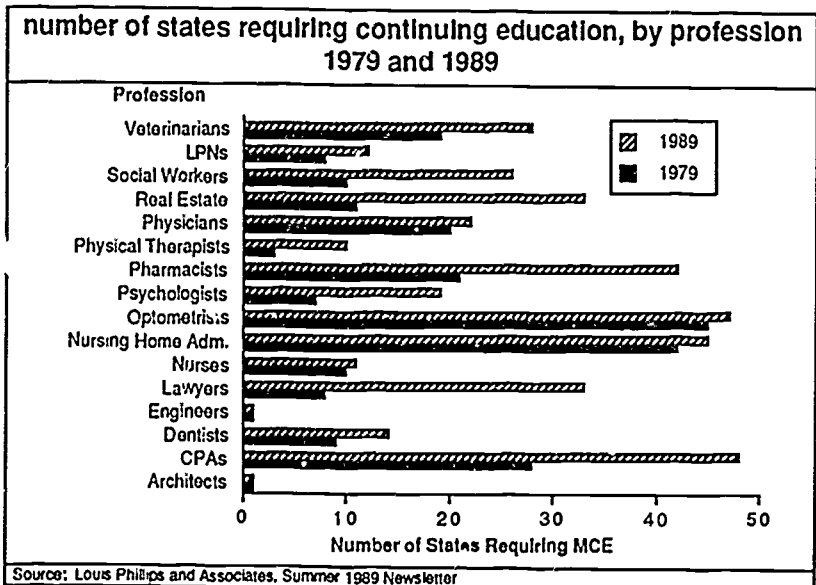
## IV. DEVELOPING HUMAN RESOURCES

### states mandate continuing education for professionals

States are demonstrating increased interest in the quality of services offered by the nation's professionals and, as a result, are mandating continuing education for a variety of professions. Professions, too, are placing a premium on education and training as a way to ensure that professionals maintain competencies in specialized fields. Professionals in the fastest growing information or highly technical fields commonly use continuing education to stay abreast of the latest developments and practices in their areas of specialty.

Mandatory professional continuing education usually implies that professionals must complete a designated number of hours of study provided by an approved educational institution such as a college or university. Given the rapid pace of change, most higher education institutions tend to offer professional programs that exceed the minimum requirements for state-licensed professions.

- Between 1979 and 1989, 20 new states implemented mandatory continuing education for certified public accountants (CPAs). Nearly every state now requires mandatory continuing education for CPAs.
- Twenty-five more states approved mandatory continuing education for lawyers between 1979 and 1989.
- Mandatory continuing education for pharmacists rose from 21 to 42 states between 1979 and 1989.
- Real estate brokers are now required to take continuing education in 33 states, an increase of 22 since 1979.





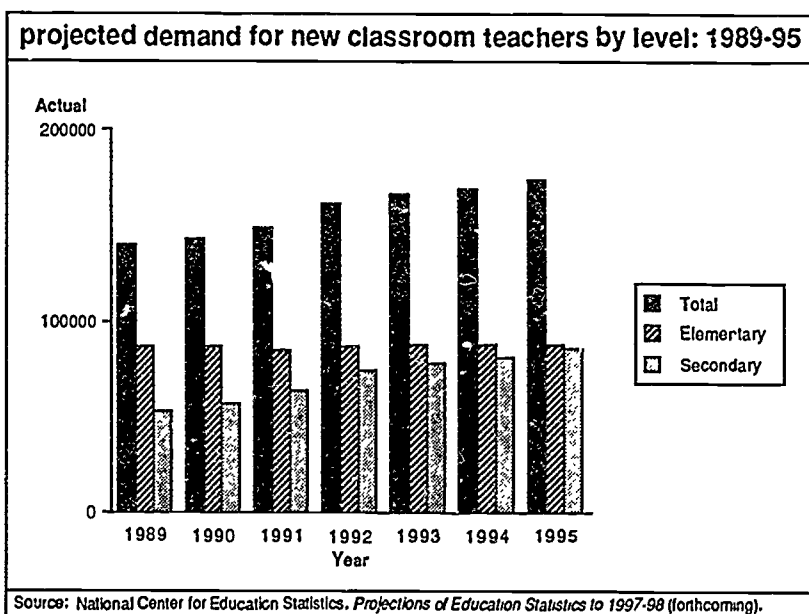
## IV. DEVELOPING HUMAN RESOURCES

### a shrinking pool of K-12 teachers heightens the need for part-time degree programs in teacher education

America's elementary and secondary schools will need to hire more teachers by the mid-1990s. In 1985, the supply of new teachers in the United States exceeded 90 percent of the demand for new teachers. But by the mid-1990s, the percentage could fall to less than 60 percent. This drop means that for every ten new teaching jobs created, only six new teachers might be available to fill these slots.

By fall 1987, 45 states had enacted competency testing into teacher certification programs. Thirty-one states require students to take an examination in order to be admitted to a teacher education program. These data imply that the market for continuing education for teachers is becoming more critical. There is an urgent need to prepare more minority teachers, some of whom might be drawn to the profession from other fields, or if part-time degree opportunities were available, from the ranks of school para-professionals. Schools also need to retrain teachers to fill subject areas where teacher shortages are greatest, and to develop teaching certificate programs for liberal arts majors.

- Currently, it is estimated that there are 140,000 new teaching jobs, approximately 62 percent at the elementary level, and 38 percent at the secondary level.
- By 1995, it is projected that there will 174,000 new teaching jobs created, an increase of 24 percent.



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V.        PERSONAL  
             FULFILLMENT

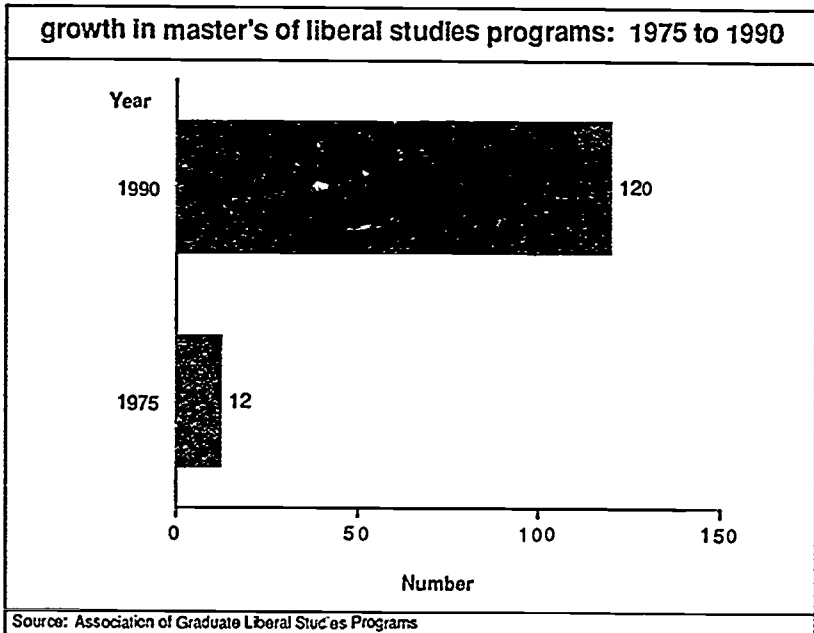


Photo credit: Gary Conner

### master's of liberal studies programs are multiplying

The study of liberal arts has been at the center of educational curricula since the advent of colleges and universities. Increasingly, professionals recognize the importance of liberal studies for success in the working world, regardless of occupation. Master's of Liberal Studies (MLS) degrees offer students the opportunity to pursue graduate-level studies leading to a multi-disciplinary master's degree in the liberal arts. Such programs typically consist of a core curriculum, course electives, and a graduate thesis or major research project. Students complete between 30 and 36 credit hours at the graduate level. Part-time MLS students complete their degrees within a three- to five-year period.

The first MLS program was developed by Wesleyan University in 1953, followed by Johns Hopkins University in 1962. Since then, about 120 MLS programs have been established at colleges and universities around the country. Programs tend to be small and are usually administered and operated by the continuing education unit in conjunction with the institution's graduate college of liberal arts.



### continuing education for alumni is increasing in size and scope

Since 1913, when Yale University began a reading program for alumni, alumni continuing education has become an integral component of most institutions' programs. Some institutions offer a comprehensive program of activities throughout the year. Others confine their programs to homecoming weekend. The estimates are, however, that two-thirds of the colleges and universities offer some type of continuing education programs to their alumni.

The growth in the number of Americans with college degrees since 1970 (more than 150 percent growth to 1987, see page 9) has supported the expansion of alumni continuing education programs.

- Thirty million adults already have had a successful college experience, and statistics show that these adults are likely to return for more education. These adults represent a ready market for continuing higher education programs.
- These 30 million adults also represent a large potential pool of educated volunteers, both to support higher education and to address national problems such as elementary and secondary education reform, adult illiteracy, environmental clean-up, and urban revitalization.



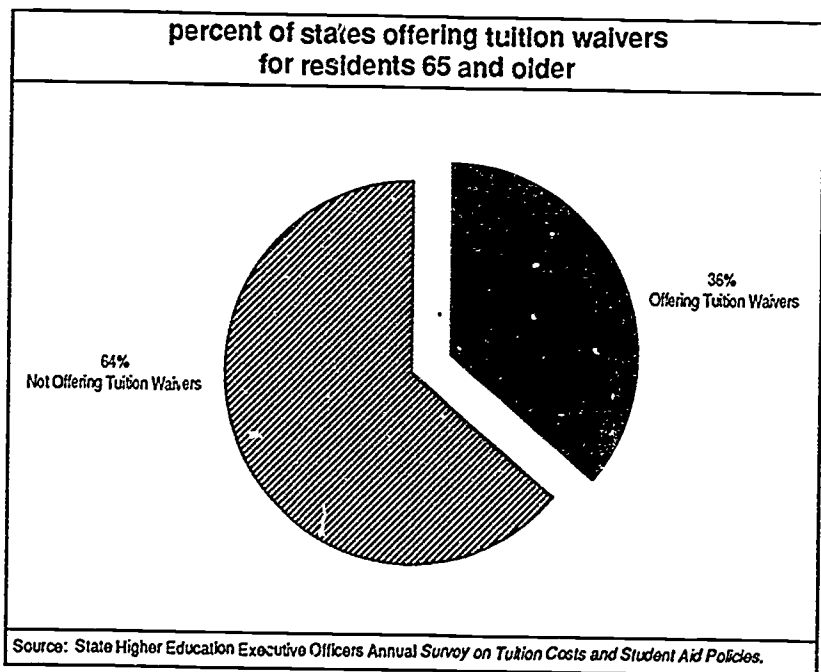
Video still from *The First Fifteen Years of Marriage: 'I Do' to 'Don't You Dare,'* a satellite teleconference sponsored by the Alumni Association of the University of Notre Dame.

## programs for adults of retirement-age are popular and numerous

Programs for adults of retirement age are growing in response to the increase in the 65 and older population. Programs for adults of retirement age take several forms. Many colleges and universities have developed centers for learning in retirement, which are residential programs for adults that usually last several weeks. Today, there are between 150 and 200 of these centers at the nation's colleges and universities serving thousands of adults of retirement age each year. Programs in history and computers are among the most popular offerings.

In addition, during the 1988-89 year, 1,313 institutions offered Elderhostel-approved programs, usually lasting one week, to adults of retirement age in the United States and Canada. Between 70 and 80 percent of these programs are housed at colleges and universities. These programs registered more than 141,000 enrollments last year. Elderhostel also sponsors overseas travel programs for Americans of retirement age, generally two to three weeks in duration.

A number of states have enacted tuition waiver programs for adults of retirement age. Currently, 18 states allow older adults to take courses tuition-free at state higher education institutions on a space-available basis.



## summer schools provide year-round continuing education

It is estimated that between 2,200 and 2,800 — more than 60 percent — of all accredited, degree-granting institutions offer summer school courses and programs. Summer schools offer part-time students an opportunity to attend college year-round and to accelerate progress toward a degree. Colleges and university enrollments during summer session have increased steadily over the past several years, according to reports from a number of associations representing summer schools.



Credit: Wendy Zimmerman

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# GLOSSARY



Photo credit: Gary Conner

## G L O S S A R Y

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### **associate degree**

A degree awarded upon the successful completion of a pre-baccalaureate level program, usually consisting of two years of full-time study at the college level.

### **baccalaureate**

Degree conferred upon completion of a four-year course of study at the undergraduate level.

### **bachelor's degree**

A degree awarded upon the successful completion of a baccalaureate level program, usually consisting of four years of full-time study at the college level.

### **college**

A postsecondary level institution that offers programs of study leading to an associate, bachelor's, master's, doctor's, or professional degree. Colleges may be either 2- or 4-year institutions.

### **credit**

A unit of value assigned by colleges or universities upon the successful completion of courses. Credits measure the academic quality of a course in relation to a program of study and measure the progress toward a specified degree program.

### **continuing higher education**

Programs or courses offered by colleges and universities at the pre- or post-baccalaureate levels to students with at least a high school diploma or its equivalent attending on a less-than-full-time basis. Study can be for credit or non-credit, degree or non-degree, certificate or some other generally recognized educational credential.

### **doctor's degree**

The highest degree awarded upon the demonstrated mastery of a subject, including the ability to perform scholarly research. Generally, a master's degree serves as a prerequisite to obtaining a doctorate.

### **educational attainment**

The highest level of education obtained, or the highest level of school attended.



# G L O S S A R Y

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## **elementary and secondary schools**

Schools below the postsecondary level that are a part of state or local school systems, non-profit private schools, and religiously-affiliated schools offering programs from the kindergarten to senior high school level.

## **enrollment**

The total number of students enrolled in a given program or institution at a particular time.

## **first-professional degree**

A degree awarded upon the successful completion of program of study for which a bachelor's degree is normally the prerequisite and which prepares a student for a specific profession.

## **full-time enrollment**

The number of students enrolled in higher education courses with total credit loads equal usually to at least 75 percent of the normal full-time load specified by the institution.

## **graduate**

An individual who has successfully completed a specified educational program.

## **higher education**

Study beyond the secondary level at institutions offering degree programs.

## **higher education institution**

An institution legally authorized to offer programs at the 2- or 4-year level for credit and offering degrees. A university is a 4-year institution offering degree programs beyond the baccalaureate level. A college may be an institution at the 2- or 4-year level.

## **labor force**

Individuals 16 years of age or older who are employed as civilians or who are looking for employment.

## **master's degree**

A degree awarded upon the successful completion of a program of study beyond the baccalaureate level, typically requiring one or two years of full-time study.

# G L O S S A R Y

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## **part-time enrollment**

The number of students enrolled in higher education courses with a total credit load less than 75 percent of the full-time load as specified by the institution.

## **post-baccalaureate enrollment**

The number of graduate-level and first-professional students enrolled in higher education courses leading to advanced degrees.

## **postsecondary education**

Courses or programs of study offered to students who have completed high school degrees or the equivalent. These include programs of an academic, vocational, or continuing education nature.

## **unclassified students**

Students who are not candidates for degrees or other recognized educational credentials but who are taking courses at higher education institutions for credit.

## **undergraduate students**

Students matriculated at a higher education institution who are working toward baccalaureate or associate degrees.

## **university**

A 4-year institution of higher education offering degrees at the baccalaureate, master's, doctoral, or first-professional levels.

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**C R E D I T S** The cover photo of Johns Hopkins University's Downtown Center is courtesy of Johns Hopkins University.

The photos in the section breaks for chapters II, IV, V, and the Glossary were taken by Gary Conner and provided by the University of California-Los Angeles Extension.

The photo in the section break for chapter III was taken by Suzi Fitzhugh and provided by Johns Hopkins University's School of Continuing Studies.

The photo on page 46 was provided by The Alumni Association at the University of Notre Dame.