Placing a question on whether a respondent is of Hispanic origin before the question of race increased the number who answered the Hispanic question. People of Hispanic background can be of any race.

Originally Published on 5/16/97 ■

## 14. Dallas Morning News

May 16, 1997

College Borrow

# *Students borrow less for college than people may think*

### Despite fears of debt, college a bargain, experts say

By Jayne Noble Suhler
The Dallas Morning News

College students borrow less to finance their degrees than the price of most sporty new cars.

Soon-to-be-released figures from the U.S. Department of Education show that the cumulative debt for seniors at public colleges and universities was an average of $12,561 for 1995-96. At private institutions, the average senior had borrowed a total of $15,136.

The education figures include federal, state and private term loans. They do not include credit card debt or debt that parents may have accumulated paying for their children's education.

A formal report is expected to be released in June.

Many students who borrow say they aren't thinking about purchasing new cars when they graduate. Instead, they say they'll do without in order to pay off loans.

"I want to get it [debt] paid off as soon as possible," said Jennifer Cato, 21, who graduates from Southern Methodist University on Saturday with a bachelor's degree and $10,000 in federal loans.

"The reason I worked three jobs, worked full time in the summers and sacrificed to make ends meet for four years was because I knew these loans would come back to haunt me."

Ms. Cato just landed a job with a Dallas sales and public relations firm and said she shouldn't have a problem making the estimated $160 monthly loan payments.

"But I'll be keeping my 1994 Ford Escort."

As daunting as debt may seem for students, college is still a bargain, say many experts.

"The only thing more expensive than going to college is not going to college," said Tom Mortenson, a higher education consultant and director of the Center for Study of Opportunities in Higher Education.

Research has shown that college degree holders earn much more in their lifetimes than high school graduates, he said. On average, a male with a bachelor's degree earns $700,000 more over 40 years than a male with a high school degree. Female degree holders earn about $400,000 more over 40 years than counterparts who are high school graduates.

It costs less to go to college than many people think, said Edward Elmendorf, vice president of the American Association of State Colleges and Universities.

A recent survey by the association showed that most people thought the average annual tuition at a public university was about $9,600. In fact, the majority of students attending public universities in their home states pay less than $3,000 a year in tuition and fees, officials said.

The tuition at the country's 1,600 private universities averages about $12,500 a year, not the more than $20,000 many people think, said Dr. David Warren, president of the National Association of Independent Colleges and Universities.

And more than half of all students receive some tuition aid in the form of grants or scholarships, so they are not paying the full amount, Dr. Warren said.

What is troubling to Mr. Mortenson, who writes a newsletter about higher education, are the borrowing habits among some low-income groups who "by and large have not caught on to the relationship between education and standard of living."

"Low-income kids, or kids who don't have a college education very often view college loans as barriers to opportunities and not vehicles" of opportunity, he said. "We hear stories frequently of people not going to college or going part time in order to avoid debt."

Although most think college is still a great investment, the price has been rising. Tuition at public and private institutions has gone up by about 5 percent a year for the past decade, and students are borrowing more than ever.

Changes in federal laws that allow more school loans have prompted borrowing to double in the past few years, from $13 billion to the $26 billion owed today.

"You will find people out there who are $20,000 or $30,000 in debt," Mr. Mortenson said.

The cost of college increases when room, board, insurance and other essentials are added. At Texas A&M University, for instance, the average student spends about $8,800 a year. At SMU, it costs the average student about $20,000 a year.

Stacey Morris, 22, a senior at the University of Texas at Austin, has borrowed about $3,000 to pay for her degree in finance. She also works 20 hours a week in a campus office to keep the debt from going higher.

"Any amount of debt is a lot when you don't know how you're going to pay for it," she said.

If they're not careful, students can get caught up in credit card debt to pay for things like books or other necessities, Ms. Morris said. Credit card companies offer students plenty of opportunities for getting cards, sometimes with limits in the thousands of dollars.

"I get a lot of letters from companies offering cards, and I have friends who have problems paying off credit card debt," she said. "I keep two cards and I find that I still live within my means, but that I spend money that I might be saving."

Julie Harris, a journalism senior at the UT-Austin, pointed out that people majoring in fields such as engineering and business are more likely to land higher-paying jobs than people in the diagnoses, not the least of which is the federal law that mandates "appropriate" instruction programs for children diagnosed with learning disabilities. By most estimates — none particularly rigorous — between 15% and 20% of all children in the U.S. are learning disabled, and many — but not all — have reading disabilities. Although public-awareness programs and federal laws have made the problem more visible, the actual number of learning-disabled kids has remained fairly steady over recent decades, scientists say. Forty years ago, these children were said to have "minimal brain dysfunction." In the classroom, they were underachievers, screwups, class clowns or the "dummies" who sat in the back of the room and got little attention, lots of detention.

Today, they are getting more attention, for good reason: Current research shows that a reading problem not caught by the age of nine is going to be harder to treat than one diagnosed earlier — and is more likely to leave emotional scars.

"Society is becoming more demanding early on," says Sheldon Horowitz, director of professional services at the National Center for Learning Disabilities. Pressures on children are intense, he notes. "If you're in second grade, and you can't surf the Internet, you're in big trouble. And if the kid is performing poorly in school, the parents are in the teacher's face."

Accordingly, reading disabilities have become a big business, with private schools, camps and tutoring companies competing for government and private funds. They are also a costly problem for the educational establishment.

Officials in California were appalled in 1994 when some 60% of the state's fourth graders scored below the basic level on a national reading-assessment test. Last year, the state legislature allocated $2 billion to revamp reading instruction in the state. Part of that money will go to train teachers in phonology, phonics and other aspects of speech sounds and word structure.

These fundamentals had dropped out of many teacher-training programs in the past decade, as the academic community embraced the "whole language" approach to literacy training. Whole language, which works well for instinctive readers, assumes that if children are immersed in language, literature and writing, they will pick up the mechanics of reading naturally. For those who struggle to decode every word they see, this never happens.

Similarly, no amount of parental reading at home will result in a child learning to read, although it's universally recommended for building children's vocabularies and demonstrating the transporting power of stories. "Reading isn't a process most kids can learn by themselves," says Dr. Horowitz. "It takes careful, intensive instruction."

With such instruction, most psychologists agree, between 90% and 95% of the population should eventually be able to read. If children get discouraged by early failure, however, their chances are considerably diminished. "If you're lousy at soccer, you're not going to hang around on the soccer field," says Dr. Lyon. "If reading is laborious, and you have to put a lot of work into it for not much reward, you're not going to hang around, either. But if you don't learn to read, you're not going to succeed in life."■

## 13. Baltimore Sun

May 16, 1997

# *Census Bureau weighs adding a 'multiracial' category*

## Some Asians, Alaskans prefer it, survey finds

ASSOCIATED PRESS

WASHINGTON — Letting people call themselves multiracial reduces the number who consider themselves Alaskan or Asian but doesn't seem to change the number of blacks, whites or American Indians, the Census Bureau has found.

As mixed-race families become more common, the government is considering adding the option of "multiracial" to the current race categories on federal forms.

The Census Bureau estimated that the number of children in mixed-race families jumped from fewer than 500,000 to 2 million between 1970 and 1990.

The final decision on whether to add the new category will be made by the Office of Management and Budget, but the Census Bureau reported yesterday on the results of a complex test of various reporting options among 112,000 households.

Adding the multiracial category reduced the reporting of Asian or Pacific Islander as a single race, bureau said. The same happened when the option of "mark all that apply" was offered and several racial categories were presented rather than asking people to pick just one.

But neither option affected the number of people reporting themselves solely as black, white or American Indian.

A group of households made up largely of American Indians and Alaskan natives showed mixed results. Including the multiracial choice reduced the number picking Alaska native, but had no effect on the American Indian total.

The question of if, and how, to add a multiracial choice to government statistics is sensitive. An individual with parents from different categories may not wish to choose one parental identity over the other.

But simply adding a "multiracial" category could cause problems in comparing current and older statistics, and it might interfere with efforts to track minorities and prevent discrimination.

The census test was intended to gauge the effect of various options on how people reported themselves.

Other findings of the test included:

Substituting "native Hawaiian" for "Hawaiian" increased the number of people picking that category.

Giving people a choice between "Guamian" and "Guamian or Chamorro" made no difference in the number selecting that category.

Spelling out "American Indian" instead of using "Indian (Amer) or Alaska native" had no effect on the number checking that group.

PHILADELPHIA INQUIRER, March 31, 1996 p. 1

**Higher Education: How High the Price**

**The money doesn't go** for teaching. It fuels a growing administrative machine. When price brings prestige, there is no incentive to control spending.

# Why college costs so much, pushing many out of the market

By Karen Heller and Lily Eng
INQUIRER STAFF WRITERS

At the University of Pennsylvania, there are 29 more students registered today than there were in 1980. There are also 1,820 more administrators and their staffs.

What's wrong with this picture?

An explosion in administration is one of several reasons tuition has skyrocketed, not just at Penn but at colleges and universities across the nation. Soaring tuition has made frantic parents and troubled educators fearful that the middle class is being priced out of higher education.

Long the gateway to a better life, higher education was once the great equalizer. If the trend of rising tuitions continues, it will divide the classes.

In the last 15 years, tuition has almost tripled. Four years at an elite private college now cost almost $120,000. A four-year education at a state school averages $37,140. Here, prices are even higher: Four years at Pennsylvania State University cost $48,264; at Rutgers, $48,572.

During most of the 20th century, college tuitions remained relatively steady, rising only at about the rate of inflation. Until 1980.

An Inquirer investigation has found that the reason for the massive leap in college costs was not a result of schools spending to educate students. In fact, the percentage spent on instruction has dipped.

Nor has the price increase been caused by a natural economic force: rise in demand. After most of the baby-boom generation graduated, the number of high school graduates dropped, lowering demand.

Instead, the explanation for the jump in prices has largely been a change in attitude. Educators came to realize that families equated the quality of a college education with cost: the more expensive, the better.

And as colleges found they could bring in millions, they found they could spend it without limits.

As colleges began raising tuitions by double-digit percents each year, families dutifully paid. Prices rose because the market would bear it.

Elite private schools, which beginning this week are sending out acceptance and financial-aid letters, led the pack in setting price, and other private colleges followed. Labeled the "Chivas Regal" phenomenon by academics, schools marketed themselves like expensive whiskey — a quality product worth the extra thousands of dollars.

How did it come about? Educators say:

- "It was a perception that the higher the tuition, the better the quality of education," says Robert V. Iosue, former president of York College in Spring Grove, Pa. "The appearance of quality upped the ante and gave the appearance of better quality. It happened like a forest fire: It went right through."
- "[Colleges] started outbidding each other — the highest-priced institutions outgunning each other every year," says Lawrence Gladieux, the College Board's executive director for policy analysis. "That pulls the whole system toward higher price."
- "It happened when they got greedy in the '80s — they caught up as fast as they could and kept going," says marketing consultant George Dehne, referring to the private colleges catching up with Ivy League prices.
- "There was a period when the economy was booming in a sense," says David W. Breneman, dean of the School of Education at the University of Virginia. "In some funny way, it had an effect — higher education catching on to marketing. People got the sense that this was an uninformed market."
- "Colleges and universities get no points for being cheaper," says Sheldon Hackney, head of the National Endowment for the Humanities and former Penn president. "There's no incentive to cut the price. But there is incentive for being more attractive."
- "They're the most inefficient operations.

More...

# Why college costs so much, continued...

If they were in the private sector, they'd have been out of business so long ago," says Temple University president Peter Liacouras.

When you look at American higher education, all the basic laws of economics are out of whack.

Colleges and universities are nonprofit institutions. They aren't operated as businesses and aren't monitored by outsiders; they invest and spend money however they wish.

If universities were held up to accepted business standards, most would be considered grossly mismanaged.

As a result, higher education is riddled with ironies.

At the same time colleges and universities have been building an enormous revenue stream, they are pricing out many consumers.

Meanwhile, institutions are not spending the money where you would expect them to — teaching students. They're pouring millions into administration and other nonacademic expenses. Consequently, colleges — as well as their students — are financially stressed and strained.

They violate the rules taught in Economics 101.

In the last 15 years, demand went down, yet prices went up.

In higher education, there is no advantage to cutting spending. In fact, spending more has become a hallmark of prestige.

Universities collect billions of dollars through fund-raising, then put the money in their endowments. Only the investment income is applied to the operating budget. It does nothing to cut tuition.

"An increasing endowment does not reduce tuition, but inflates it," observes Richard M. Huber, a former Hunter College dean.

Tuition is unaffected by successful fundraising efforts. In fact, the schools with the largest endowments are among the most expensive to attend.

With huge endowments and record tuitions, many of the richest institutions spend without restraint — on research, new buildings, administration — and routinely run deficits.

As prices have gone up, the number of families that can afford tuition has dramatically decreased. To offset this, schools are not lowering prices; they're giving away more financial aid. That results in another contradiction: Schools are spending even more to entice students.

In the last 15 years, the total price of attending college has increased at more than double the rate of inflation.

Increases in tuition outstripped those for cars, housing, even runaway medical costs.

The cost of attending a private college for one year now consumes almost half of the median American family's gross income. In 1980, it was only a quarter.

Since 1959, the share of gross national product spent on higher education has increased by 114 percent, according to the Department of Education. At the same time, the total spent on primary and secondary education has not kept pace, rising only 35 percent.

As college costs keep rising, professors teach fewer classes. Once, the faculty routinely taught 12 hours a week or more; today, about one-third of all professors at research universities teach fewer than four hours a week; more than two-thirds are in the classroom fewer than 10 hours a week.

Students are increasingly being taught by part-time instructors, graduate students, and even fellow undergrads. At Gettysburg College, where the total annual cost is $25,356, a sophomore is being paid as a teaching assistant in Renaissance and medieval literature. And colleges are cutting back on the time students spend at school each year. Today, the academic year is eight months — 30 percent shorter than at the beginning of the century.

There is no proof that education is better as a result of the higher costs. Some experts in academia say it's worse.

The American goal of getting an affordable college education has become a financial drain for much of the middle class.

Krissa Coleman is the first member of her family to get a bachelor's degree. She graduated from Northwestern College in St. Paul, Minn., and her husband, Brett, graduated from the University of Minnesota. The young couple, from solidly middle-class families, is starting married life with almost $20,000 in loans, plus interest.

"It's overbearing. I think it's really stopped us from moving on," she says. "Our friends have houses. That's not a realistic possibility for us to acquire more debt. It's hard to think about starting a family."

Admissions officers once compared the price of a college education to that of the family car. Now, it's more like the house.

Neal Raisman, president of New York's Rockland County Community College, says

More...

# Why college costs so much. continued...

of high tuitions: "It's like paying for a mortgage without getting the house."

In this nervous economy, when it's essential to have a bachelor's degree to secure an entry-level office job, the price of attending many colleges has become a barrier. As the gulf widens between the earning potential of college vs. high school graduates, so does the cost of attending various colleges. Most Americans cannot afford private and in some cases public colleges without incurring overwhelming debt.

College was once a privilege, then became an affordable option. Today, virtually all parents want their children to go to college, says U.S. Secretary of Education Richard Riley, and 65 percent of the population eventually attends. But if the price increases don't stop soon, the trend is going to reverse.

"You read these articles where you have to save 10 to 12 percent of your wages just to keep up with college inflation," says Mark Laurenti, a Shop Rite executive from Hamilton Square, N.J., who is saving for his three young children. "Well, every parent would like to see their child have the best, the Ivy League. You want that for your children, but look at what Rutgers tuition is now, and it's scary."

■

At private schools, these large tuition increases started in the early 1980s. At most public schools, substantial tuition and fee increases began in the late 1980s and accelerated in the 1990s, with the public clamoring for lower taxes and the states pouring more money into prisons and health care.

As tuitions boomed, private and public schools expanded departments for fund-raising and marketing to elevate the schools' image and prestige to remain competitive.

Colleges and universities argue that higher tuitions reflected rising costs that couldn't be controlled: computer systems and new technology, health care, increased faculty salaries, upgrading of aging physical plants, compliance with government regulations.

But increased revenues also allowed colleges to spend without limit. Institutions went on sprees, pumping money into faculty, administration, new buildings and other amenities.

"It was the decade of consumerism, a period of yuppyism, BMWs, and designer labels," said Iosue, the former York College president. "Colleges realized there was a gravy train, and there was a lot of gravy. . . . They were ripe conditions for colleges to go up and up."

Universities are built on an uneasy platform of prestige, which comes from the reputation of their scholars and, to a lesser degree, their facilities and administrators. The biggest expense is for personnel, with the brightest academic stars commanding salaries of $175,000 or more.

All this costs money, and colleges have become very good at raising it. Private philanthropic support for higher education grew from $3.8 billion to $12.4 billion between 1980 and 1994, according to the American Council on Education.

"For prestigious universities, it's, 'Charge all you can, cry all you can, and spend all you can,'" observes Huber, the former Hunter College dean.

In higher education, schools shop for prestige by adding, not by cutting back. They hire faculty to do research, then hire staff and administrators to perform the duties once required of faculty.

"Building a great college is something you buy and not something you build," says Arthur Levine, president of Teachers College at Columbia University.

"For the most part, prestige is not a function of how well colleges and universities do undergraduate programs," says Patrick Callan, executive director of the California Higher Education Policy Center. "What's interesting about these mega-universities is that students who go there have no contact at all with the faculty who created the reputation... It's an odd system."

Most colleges now have an administrative department of student advisers, a job once performed by faculty. Schools are heavily staffed with faculty assistants and administrative assistants, academic and psychological counselors, health-care workers, fund-raisers, marketers and massive human resources departments to deal with the explosion in non-academic personnel.

Since 1975, administration in higher education grew at more than three times the rate of student enrollment.

As schools remade themselves into internationally recognized research institutions, students demanded more amenities: larger dorms, newer student centers, bigger athletic facilities.

More...

# Why college costs so much, continued...

Administrators, research faculty, better rooms, more racquetball courts — none had anything to do with the quality of undergraduate education. Yet they helped push prices sky-high.

Then, colleges tried to outdo one another. When one built an average-size swimming pool, its rival built an Olympic-size pool.

"Colleges are competing against each other like resort hotels," says Chester E. Finn Jr., a former assistant secretary of education.

Higher education is in a vicious cycle of raising prices, then having to grant students more aid to help pay the price. Such aid has grown to the point of burdening inflated college budgets. Now, some schools are cutting back on educational expenses — reducing full-time faculty, trimming departments to provide more financial aid.

Due Quach is a soft-spoken, Central High School senior, one of four children. Her father runs a Philadelphia fast-food restaurant. She wants to be a doctor.

"I think going to college has become more important and less so at the same time," says Quach, who has been accepted at Harvard and now awaits her financial package, which must be substantial for her to attend. "On the one hand, you have to have a college degree to get a job, but a degree doesn't guarantee a job. You often need a graduate degree."

The fees schools charge are so high — as much as $60 just to apply — that Quach had to get financial assistance for the application and financial forms. She doesn't understand why a school like Harvard costs $30,000 a year, then spends $25,000 helping someone like herself to attend: "I think it's pretty stupid to give out so much financial aid in the first place. Why did they raise the prices so high?"

The financial-aid package is more crucial than the acceptance letter mailed in December. "If I don't get the right aid, I'll go to Penn State," she says. "Maybe 30 years from now, going to Harvard or Brown won't be as expensive, or it won't be as special."

Today, because of high tuitions, students are graduating with more debt than ever. It's not unusual for those completing professional degrees to owe $100,000. Massive loan burdens are prompting students to pursue more lucrative private-industry jobs instead of public service.

Jack Beck, a senior at Southern Oregon State College, is majoring in computer science, a degree he knows will get him a job. He has accumulated $22,000 in loans.

"There are other majors I like," Beck says. "But let's face it. I had to pick a major that was going to land me a job."

Otherwise, Beck says, he would have gone on to graduate school, and that would mean more debt.

"Students are collecting loans that are more than parents make in a year," says Ed Dennis, executive director of the Oregon Student Lobby. "It's far out of reach."

Yet, the bachelor's degree is becoming more essential. In 1994, a person with a college diploma earned an average of $31,500. People with only a high school degree earned an average of $16,560. Americans with bachelor's degrees also are less likely to be unemployed.

Today, 15 years after tuition began its big rise, private colleges and universities boast they are slowing the rate of increase; a handful have even lowered prices. But these claims are misleading. Tuition is still increasing at more than double the inflation rate. At four-year public and private institutions, tuition and fees increased 6 percent for the 1995-96 academic year. The Consumer Price Index rose only 2.5 percent last year.

**And colleges' annual dollar increases are** often 50 percent higher now than they were in the 1980s; at the elite schools, where administrators boast that increases are being held to 5 percent, this translates into annual tuition jumps of more than $1,000.

Moreover, when the nation was at the depth of a recession between 1990 and 1994, colleges and universities increased new construction costs by 63 percent, according to the F.W. Dodge Division of McGraw-Hill Inc., which keeps national statistics on building and construction.

Public universities, where students have turned for more affordable educations, are bumping up their prices and toughening admissions standards because of stagnant state funding and increased demand. Experts worry that the nation's flagship public universities will become more exclusive than many private institutions, attracting the best, the brightest and often the richest — SAT scores have long been tied to income — while shutting out the middle class.

"The old notion of low-cost, public higher education being accessible to all families is in danger of being obsolete in some places," says Terry Hartle, vice president of governmental relations at the American Council on Education.

What was once considered an attainable goal — getting a college education — may soon be out of reach.

During the 1980s, most colleges and universities defined quality as quantity, or growth. Gains were made through addition. More buildings, more faculty, more programs, more money and more administrators.

"Undetected, unprotested and unchecked, the excessive growth of administrative expenditures has done a lot of damage to life and learning on our campuses," observes Barbara Bergmann, an economist and past president of the American Association of University Professors. "Huge amounts have been devoted to funding administrative positions that a few years ago would have been thought unnecessary." The result is that "some of these newly added people apparently have to cast around for things to do."

The swelling of higher-education administration has outstripped the number of students. From 1975 to 1993, while undergraduate enrollment grew by 28 percent and faculties increased by 22 percent, the administrative staff increased by 83 percent.

"There was a lot of unnecessary growth in the effort to professionalize: purchasing agents joining professional associations," says John Fry, Penn's executive vice president.

Penn lists 15 people, including a speech-

More...

# Why college costs so much, continued...

writer, on president Judith Rodin's staff; 14 more administrators report to the provost, the university's top academic officer; the treasurer has a department of 36; the university secretary has a staff of 10. There are five vice provosts, five vice presidents, an executive vice president, a deputy provost, an associate provost and five assistant provosts.

For every faculty member, Penn has more than 2½ administrators and support staff. These numbers do not include unionized labor, 1,113 more employees (including housekeeping, security, library and dining service workers). There are 2,100 full-time faculty members.

"What happened in a 20-year period was that universities took every dollar they got, and pumped it back into the university," says Hackney, Penn's president from 1981 to 1993. "The ratio and support staff increased as things went along. When faculty gave up student counseling, universities hired professionals to do that — tutoring services, advisers."

All this costs money, and students and their families helped foot the bill.

In 1950, colleges and universities spent 27 cents on administration for every dollar on instruction. They now spend 45 cents, according to the latest Department of Education statistics.

Today, public colleges and universities allocate an average of $2,236 per student on administration. At private universities, the cost is $4,469 per student. In most cases, these costs are tacked on to tuition.

■

For all the advances in technology, students still learn much the way they always have since the founding days of Oxford — in a classroom with a teacher imparting knowledge, encouraging research. But administrations have been so altered as to be all but unrecognizable to anyone who attended college more than 20 years ago.

"When colleges and universities change, they change only by addition. They take up everything, add to things," says Levine, of Teachers College at Columbia University. "As long as the school was increasing, they kept changing. In the 1980s, colleges and universities acted as if they were real growth industries, even when the growth had slowed."

Once they grew, schools had a hard time cutting back. "Colleges are organically incapable of shrinkage," says Chester E. Finn Jr., former assistant U.S. secretary for educational research and improvements.

"I preside over the biggest, largest university in the country. We teach 11,000 courses," says Ohio State president E. Gordon Gee. "I'm the president of Noah's ark. We do two of everything. We've got to shoot a few of those large animals before they get to the trough or we will all starve to death."

There are now 50 professional higher-education organizations based in Washington. They include everything from the National Association of Student Personnel Administrators to the National Association of College and University Business Officers.

Presidents oversee these huge administrations, and their budgets often rival the gross national products of small countries.

Administrators are well compensated for their work. Harvard pays its investment bankers handsomely to oversee its $6.2 billion endowment: The vice president for equity, Jonathon Jacobson, earned just under $3 million in 1994. Harvard's vice president for select equity, Robert Atchinson was paid $1.3 million; and Harvard Management Co. president Jack Meyer had a salary of $1.2 million.

At financially troubled Adelphi University in Garden City, N.Y., where enrollment dropped 12 percent this year, president Peter Diamandopoulos got $523,636 in salary and bonuses in 1993-94. He was given the use of a $1.2 million Manhattan apartment and a $400,000 condo in Garden City, and a four-bedroom residence near campus. Even a smaller institution, Rhodes College, in Memphis, paid its president, James H. Daughdrill Jr., $461,458 in salary and benefits.

"The college president used to be seen more as an academic officer. Now, the president is a chief executive officer," says Oberlin president Nancy Dye.

"We are lobbyists. We have to be extremely well-versed in institutional development. I probably average a day a week in labor matters or with a lawyer," says Augustine Gallego, San Diego Community College District chancellor.

Michigan State, realizing that financial expertise was as crucial for a university president as academic experience, hired M. Peter McPherson, a former deputy U.S. treasury secretary and Bank of America top executive.

Administration is booming, so much so that about 90 institutions now offer degree programs in the field. "Administration is in a growth mode," says Philip Wexler, dean of the University of Rochester's Margaret Warner School of Education and Human Development, which offers such a program.

"In major companies, if you lose money, something has to give," says Michigan State's McPherson. "At universities, there isn't a quarterly financial report, like at Fortune 500 companies, to show us we're losing money."

Nor do universities react swiftly to financial hardship. Says Levine: "Colleges' response to diminishing resources was to say, 'We have no resources. Oh, let's raise more money. Let's hire more people in development. Why don't we hire more people in admissions, more people in student counseling? Let's have a finance office to spend more money.' Then they turn around and say, 'Wow. This isn't saving us money. It's costing us a mint.'"

Administrators also say costs were pushed by the price of progress: technology, diversity and government regulation, everything from complying with the Americans With Disabilities Act and Title IX to the cost of monitoring lab rats.

Ironically, institutions of higher learning have been among the last to fully use the advances they have perfected. They have been slow to technically upgrade buildings, consolidate computer systems and streamline management.

As with the federal government, this has helped drive up the size and cost of administrations.

"My problem is that we continue to do business the same way," says David Longanecker, U.S. assistant secretary for higher education. "What we haven't done is to achieve the kind of higher productivity gains resulting from our core processes that other businesses have done.

"We're not using the new technologies that are making every other business better, that in fact we basically created with the expansion of knowledge in our institutions."

Princeton, per capita the nation's richest university with an internationally acclaimed mathematics department, has a $4 million operating-budget deficit. Yale, home of a great architecture program and a $3.98 billion endowment, has critical deferred-maintenance problems estimated as high as $1 billion.

Despite endowments topping $1 billion, most of the elite universities are running deficits.

Penn is an exception. Although exempt

More...

# Why college costs so much, continued...

from paying taxes, schools are required to file financial reports annually with the IRS. Penn reported an excess of $462 million in 1993.

"We're the only Ivy that hasn't run a deficit in the last 10 years," says Rodin.

Penn and the University of Chicago, which boast two of the world's finest business schools, have employed outside strategic planning consultants to analyze and redesign their operations.

Penn's Rodin hired her Coopers & Lybrand consultant, John Fry, as the new executive vice president. In his December 1994 restructuring report as a consultant, Fry found that Penn had antiquated administrative systems, a costly human resources department, redundant purchasing procedures, 1,000 staff reclassifications each year "in order to reward and promote employees." And the Faculty Club was running a $700,000 deficit.

The current "Agenda for Excellence" calls for Penn to "reduce the cost of central and school administration by $50 million during the next five years." It also suggests Penn "reinvest these savings in support of the university and school-based strategic priorities."

Schools have had great success at raising money for buildings and endowed professorships but not necessarily for enhancing undergraduate education. For example, until recently, Penn had limited success raising money for financial aid.

"Colleges and universities are going to have to do what we in government and private industry are already doing," says Secretary of Education Riley. "Restructuring, consolidating, making organizational changes to give your students the best education in the most efficient way There's got to be a flattening out of organizational charts to get maximum benefits out of people."

Experts believe this won't come easily. Yale's faculty was up in arms when former president Benno Schmidt tried to eliminate staff positions and departments. The faculty won, Schmidt left, and today Yale — with the nation's third-largest endowment — has financial problems among the worst in higher education.

Even small schools have fallen prey to bloat. "Look at all the vice presidents we have: comptroller, student life, athletics, financial, development and public relations," says Kenneth Mott, a political science professor at Gettysburg College, home to 2,000 students. "The academic enterprise was once the heart and soul of the college; now, it's just one of five departments. We have definitely become a business."

■ **Tomorrow:** College — once the great equalizer — is pricing middle and lower class students out of the market.

## How to Beat High Tuition

Experts suggest the following:

■ **Be prepared.** Go to seminars. Ask questions.

■ **Don't be late.** Mail applications early.

■ **Apply for financial aid.** Don't worry about what your income is. Send in the federal financial-aid form (FAFSA) right after Jan. 1 of the year the student is entering college. This will automatically put you in the running for state grants. Some private institutions have a new form, the CSS/Financial Aid Profile. Read the college's literature to see if it is required.

■ **Limit child's savings.** Make sure your high school senior does not have savings in his or her name.

■ **Don't rule out expensive schools.** Go ahead and apply; many students don't pay full price.

■ **Apply to six to 10 colleges.** That way, you can select from a wider range of financial-aid packages.

■ **Do your research.** Find out what factors are considered for aid. For example, home equity is not a factor when state and federal aid are considered; it may be an issue when private institutional aid is sought. Also, colleges expect you to spend 5 percent of your savings on tuition; the percentage is larger for salaries. It's a complicated calculation with variables, so generalizations are difficult to make. For a rough estimate: Expect to spend 10 percent to 20 percent of annual salary on tuition and fees.

■ **Appeal.** Decisions of financial-aid officers can be appealed. They do change their minds, especially if you've been offered more aid at a competitive institution.

■ **Think ahead.** Do not neglect other financial goals, retirement among them.

■ **Start saving now.**

PHILADELPHIA INQUIRER, March 31, 1996 p. 27

# Survival guide to college costs

At a time when average college costs swallow nearly half the median family income, Americans are taking 10 years to pay for an education, instead of four. Two generations, and sometimes three, are sharing in the payments, especially when a bachelor's degree can cost up to $120,000.

Higher education experts and financial-aid consultants, now in a booming field, have some advice to make the process less painful — although it entails filling out endless forms and often bargaining like pros.

Always apply for aid. At private colleges, many families pay less than the tuition sticker price. Most schools are clamoring to fill seats. The best packages go to better students with strong outside achievements (sports, music) that add to the college community. At Gettysburg College, where annual charges run $25,356, one-third of all students whose families have incomes of $100,000 receive aid.

Apply early, and don't be put off by the forms. There is only so much aid. Latecomers, no matter how deserving, will be locked out.

"Filling out the college loans application is 10 times worse than filling out your taxes," says Marybeth Vento of Haddonfield, but worth it. Fortunately, most of the forms are standardized, the essential one being the Free Application for Federal Student Aid (FAFSA). Unfortunately, families have to apply annually, and awards can fluctuate.

"Anybody can fill out the form," says private aid consultant Kalman Chany, author of *The Princeton Review Guide to Paying for College*. "How you fill out the form is going to determine how much money you're going to get."

Multiple applications are worth the investment. Despite application fees that run as high as $60, the return can be thousands of additional dollars in aid. During the 1970s, students applied to as many as 10 colleges each because it was so hard to get accepted. During the 1990s, students are applying to 10 schools to determine which school will give the most aid.

State colleges and universities offer little aid but the cost of attending is generally half that of a private institution. Many students are applying to both, as well as looking at top public universities in other states (where out-of-state tuition is still lower than the most selective private schools), then seeing what the ultimate cost will be once aid packages are determined.

Never hesitate to bargain if a competing institution has offered more aid. Schools hate it, many claim they never give in to pressure, but they do negotiate. Their phones are usually flooded during the month of April.

The more children in school at one time, the better the aid tends to be. But once one child graduates, even though loan payments begin, the debt isn't taken into account when calculating a younger sibling's package.

Grants also can be cut from year to year. Some schools practice bait and switch: Strong freshman aid packages are reduced, as a student is expected to work more to pay for education. Parents and students also should be concerned about colleges where most students receive substantial aid. The money has to come from somewhere — sometimes at the sacrifice of education.

Colleges use the tax year before a student enrolls to determine aid. Families should plan ahead and make switches necessary to secure better packages. Parents are wise to save in their names rather than setting up separate children's accounts — unless they can be transferred a couple of years before high-school graduation. While the federal government assesses children's savings at a lower rate that those of their parents, higher education does the reverse: a student's assets are assessed at 35 percent of their value, while the parents' savings are assessed at 5.65 percent of their worth.

Families should talk to financial aid counselors. In 1992, Congress approved numerous changes in federal financial aid including increasing loan limits and relaxing income qualifications.

Student loans are the most common form of financing. Half of all undergraduate and graduate students borrow for their educations. But families fortunate enough to choose other financing solutions should be aware of the real cost of loans.

## A Cheat Sheet on Financial-Aid Terms

The U.S. Department of Education provides several financial-aid programs.

- **Pell Grants:** Financial-aid money that does not have to be paid back. Pell Grants are awarded to the neediest undergraduates. Awards vary depending on need, how much the college charges, and whether the student is full time.
- **Supplemental Educational Opportunity Grants:** Financial-aid money that is provided to undergraduates with exceptional financial need. Students receive between $100 and $4,000 a year.
- **Stafford Loans:** Low-interest loans backed by the federal government. A subsidized Stafford Loan is awarded on the basis of need. Qualified students do not have to pay interest on the loan until they graduate. An unsubsidized Stafford Loan is not awarded on the basis of need. Students are charged interest from the time the loan is disbursed.
- **PLUS Loans:** Parents can also borrow for their children's education. They can borrow up to the full cost of the education minus any estimated financial aid received by their children.
- **Perkins Loans:** Low-interest loans (five percent) for undergraduate and graduate students with exceptional need. These loans are made through a school's financial-aid office. Eligible students can borrow up to $3,000 for each year of undergraduate study and $5,000 for graduate or professional study.
- **Work Study:** Jobs provided to undergraduate and graduate students that help them earn money to pay for their education. Wages vary according to work and skills required.

SOURCE: U.S. Department of Education

More...

SURVIVAL GUIDE, continued...

"Parents can now borrow up to the total cost of education. Why a parent would do that, I don't know," says Jerry Davis, head of research for the Student Loan Marketing Association. "It would be better to take a second mortgage out on your house — at least it's deductible on your taxes."

More affluent families are taking out home-equity loans or refinancing mortgages, which offer lower interest rates as well as a tax deduction. Despite President Clinton's call for an annual tuition credit of up to $10,000, there is still no tax benefit to student loans.

It's better to start saving as early as possible and pay directly out of savings. Schools do not look charitably on families who have the income but failed to save; they'll just recommend more loans. A student borrowing $10,000 at 8 percent will end up paying $14,556 over the 10-year life of a loan; at 9 percent, the payments will total $15,204.

Consequently, middle-class families who finance education almost exclusively through school loans end up in the worst possible position in an age of discounts and deals: They are paying more than the sticker price.

PHILADELPHIA INQUIRER, March 31, 1996 p. 26

# College officials defend spending

Higher education administrators defend escalating prices by citing the high costs of running a college.

Officials say that in the last two decades, most campuses have had to modernize classrooms, stock libraries and upgrade labs. They say that technological advances force them to buy more and newer computers and sophisticated equipment.

They routinely cite increasing employee salaries and benefits, arguing that faculty salaries have been too low in the past.

Administrators say that the economics of colleges are more complex than virtually all other businesses.

"Clearly, in the last 10 years, the explosion in technology and the need to keep up with it, and do some pretty significant things raises our costs," says University of Pennsylvania president Judith Rodin. "All that makes the higher-education index much higher than the Consumer Price Index, which factors in the cost of bread and dry cleaning. We have the unique niche that, over the last 10 years, has been more costly and rising at a much higher rate than inflation."

Due to such expenses, administrators say their costs can't be tied to the Consumer Price Index. So they have their own: the Higher Education Price Index (HEPI), which has run above inflation during the last decade.

Even at a time when the nation faces stagnant wages and record layoffs, schools continue to use HEPI to justify tuitions and other charges rising at twice the rate of inflation.

PHILADELPHIA INQUIRER, March 31, 1996 p. 26

# Faculty are spending less time teaching

By Lily Eng
and Karen Heller
INQUIRER STAFF WRITERS

For decades, professors taught 12 to 15 hours a week. That was the standard everywhere. Now, faculty at most major universities teach three to six hours a week — depending on whether research allows the time.

One-third of all professors at research universities spend less than four hours a week teaching classes, according to the latest Department of Education statistics. More than 40 percent of professors at private research universities teach just one course per semester. Research universities, such as the University of Pennsylvania and Pennsylvania State, offer master's and doctorates and have professional schools as well. One-fifth of all college students attend research universities.

Professors say it is unfair to judge them by class hours, particularly if they work at universities where promotions, salaries and even teaching assignments are based on how much research they do as opposed to the hours they spend with undergraduates.

"Preachers aren't judged by the amount of time they spend on the pulpit; they're judged by how well they do their jobs overall," says Penn State chemistry professor Peter Jurs, who teaches freshman chemistry three hours a week and works with graduate students on research projects. "Legislators aren't judged by how much time they spend in the House of Representatives. They are judged overall. It's the same for us. Most of it is behind the scene."

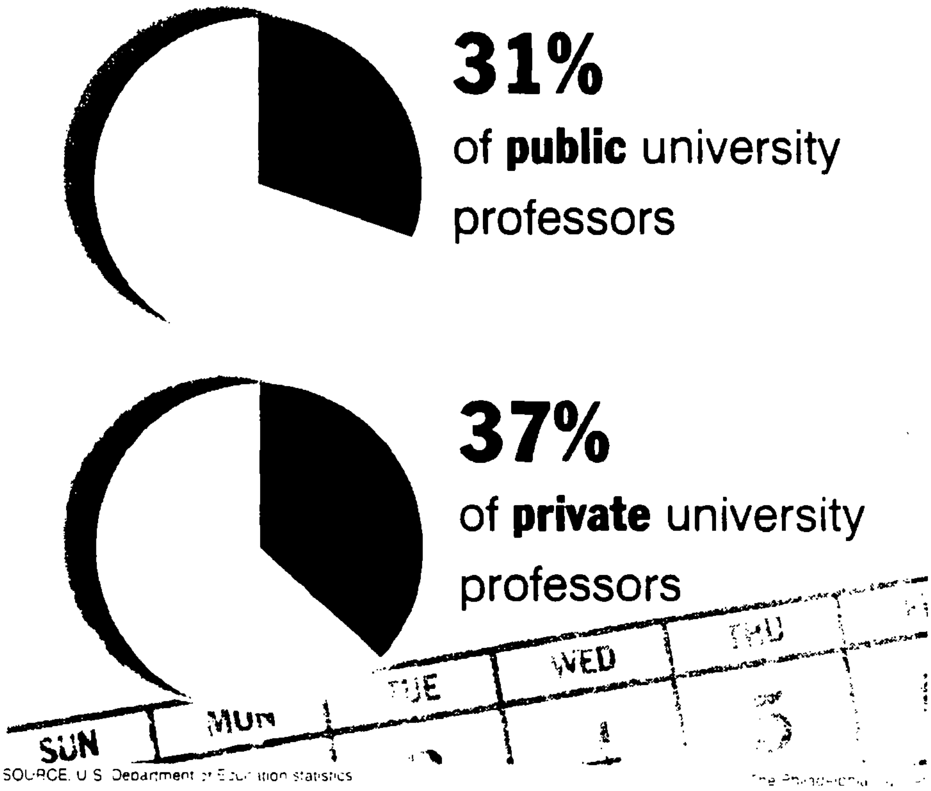
When faculty members spend less time with undergraduates and more hours dedicated to research, others must fill their shoes. That means universities must hire advisers to counsel students and junior faculty members to teach. Ultimately, that makes a college education more expensive and boosts the price of tuition.

Undergraduates end up getting less for their money, writes Richard Huber, former dean of Hunter College and consultant on American studies at the U.S. State Department. In his book *How Professors Play the Cat Guarding the Cream — Why We're Paying More and Getting Less in Higher Education*, Huber observes:

"As the hunger for prestige through published research grows more ravenous, the quality of undergraduate education and the cost-effectiveness of American universities is going to get worse."

## Is There a Professor in the Class?

At research universities, about one-third of professors average fewer than **four hours per week** teaching students:




SOURCE: U.S. Department of Education statistics

Professors say they have to balance undergraduate teaching and research with service, including administrative duties and committee work. "In an institution like this [Penn State], undergraduate education is only a part of our duties," Jurs says. "And, yes, there's an emphasis on graduate education because we're judged by research impact, visibility and reputation. And you don't get any external visibility, reputation or research impact by teaching an excellent undergraduate course."

His opinion is shared by most professors, according to a survey conducted by the University of California.

UCLA's Higher Education Research Institute surveyed 35,478 full-time faculty nationwide. Professors said their highest priority is to "increase or maintain institutional prestige."

The reward system at research universities favors those who have national and international research reputations, says George F. Palladino, vice chair of Penn's chemistry department: "The mission of the research university is to discover new knowledge. And the discovery of new information is what makes a research university distinctive among all institutions."

Faculty aspire to work at the top universities in the country, says Patrick Callan, executive director of the California Higher Education Policy Center in San Jose. To get there, they must make a splash by publishing.

"Teaching doesn't get you anywhere. Research does," says Callan. "It's not that research is bad, we need it [illegible]," says

More...

**FACULTY, continued...**

such a role in becoming a professor. Most faculty train in research, they learn how to value research, and that is what they really want to do. That becomes pressure to reduce teaching so faculty have more time for research."

At community colleges, faculty value teaching, says Samuel Draper, who coordinates the honors program at Rockland County Community College in New York state and who has taught for 28 years.

"The teachers in this program could teach anywhere," Draper says. "But they're here because they want to be teachers, not scholars."

Community colleges evaluate faculty for their teaching, not for their scholarship, Draper says. At prestigious four-year colleges and universities, the faculty are evaluated for how much research they do and the reputation they gain.

"The world wants the university to teach, and the universities have refused to do it because of this treadmill they have gotten on," says Ohio State associate professor George Kalbouss, who teaches Slavic and East European languages and literature. "The promotions committee rewards research and they are boxed into it. It's easier to look at publications rather than teaching."

Washington Edition/Los Angeles Times, April 1, 1996, P. 10

# Beware the Language Vigilantes

The Supreme Court decision to hear an appeal that seeks to make English the sole language for "all government functions and actions" revives an absurd debate. This is an Arizona case of little importance, but symbolically it reflects a disturbing trend toward xenophobia in the states of the Southwest.

The issue arose in November 1988 when Arizona's voters approved a measure stating that all business in public schools and government offices had to be conducted in English. Maria Kelley Yniquez immediately challenged the law in court. Kelley, then a state employee, was proficient in two languages. She spoke in English with those who needed information in English, and Spanish with Spanish-speaking people who had business with the government. In those cases, obviously, it made sense to speak Spanish.

Kelley won her suit, and the federal judge who heard the case invalidated the measure. When the Arizona governor refused to appeal the ruling, a group called Arizonans for Official English filed an appeal instead—and lost. The U.S. 9th Circuit Court ruled the law failed in the face of the constitutional guarantee of freedom of speech. The English-only group finally appealed to the Supreme Court.

Beyond the decision by the Supreme Court, whatever that may be, the case raises some common-sense questions like why would anyone want to punish instead of reward someone who can serve the public in two languages? Why would any public servant, or private citizen for that matter, refuse to do business with someone who speaks another language? Who are these language vigilantes who designate themselves public defenders of limitations?

America was not built, nor can it advance, on insecurities like this.

BOSTON GLOBE APR 04 1997

7/

# Making college affordable to all is a national priority

NEIL L. RUDENSTINE

*Harvard University*

*First in an occasional series.*

In an era when budgetary constraint has forced the nation to think hard about common priorities for the future, all of us should take heart that education has emerged high on the national agenda.

Our system of higher education – for all its imperfections and unmet challenges – remains one of our greatest national resources, unmatched the world over. And broad-based access to that system remains one of our most compelling national needs.

THE PRESIDENT'S CORNER

I entered college more than 40 years ago – something I could not have done without the benefit of financial aid. Then as now, the full cost of an undergraduate education was beyond the means of a great many American families. For me, student aid made all the difference, and it transformed my life. It opened my eyes to a universe of possibilities. It enabled me to meet people I would never have met, to wrestle with ideas I would never have encountered or understood, and to contemplate the future in ways that would otherwise have seemed unimaginable.

Inspiring that sense of possibility in each individual and providing the educational opportunities that convert aspirations into reality are among the most precious investments we can make in our shared future. In the half-century since World War II, through a partnership among students and their families, colleges and universities, federal and state government, and others, our society has made unprecedented gains in opening the doors of higher education to more and more students. We should not exaggerate our progress or understate our persistent shortcomings. But neither should we lose sight of what has been achieved or of the central role that need-based student aid has played in making college more widely accessible.

Over the decades the federal government has shown vigorous leadership in this sphere, dating back to the GI Bill in the mid-1940s. In recent years, however, there have been portents of impending retreat. Now, fresh developments in Washington offer reason for renewed optimism. President Clinton has unveiled a package of proposals aimed at strengthening federal student aid. Both Republicans and Democrats in Congress, meanwhile, have developed a variety of initiatives aimed at making college more broadly affordable.

The debate appears to have crossed a threshold: Enhancing college opportunity has reemerged as a bipartisan federal priority, and the challenge now is to build consensus around the most effective and cost-effective ways to move forward.

As the consideration of various proposals unfolds, it will be important to keep in mind the following concerns:

■ Strengthen aid for those most in need. The gap between America's rich and poor has widened notably, and alarmingly, in recent decades. Similarly, while the overall college participation rate for high school graduates has increased markedly since the late 1970s, the rate remains much lower for students from low-income families than for those from higher-income families. Such trends underscore the critical importance of strongly linking aid to need.

If one believes, as I do, that the progress of our society as a whole depends on the opportunities within reach of the least well-to-do among us, then all of us have a common stake in concentrating financial aid resources on students who need them most. We should ask, as we weigh different proposals, whether the measure will be effective not only in easing the financial strain on students who would attend college in any event, but also in providing the opportunity for a college education to promising students who could not otherwise afford one.

■ Restore the balance among different forms of federal aid. In the past two decades, the focus of federal student aid has shifted strongly from grants to loans. In 1975, grants accounted for about four-fifths of such aid; in 1996, they accounted for less than one-fourth. Beneficial as loan programs have been to millions of students, obvious dangers arise when borrowing becomes too strong an element in paying for college. Postgraduation debt burdens have swelled, and many students who might otherwise pursue modestly paying jobs in public service are inhibited from doing so by the specter of spiraling repayment obligations.

A number of pending proposals would counteract the tendency toward a disproportionate emphasis on loans. These include the recommendations for a major increase in the maximum Pell grant available to students from lower-income families; for tax deductions, tax credits, and tax-advantaged savings accounts designed to ease the net expense of attending college; and for a boost in funding for work-study jobs, which also help students meet their educational expenses on a current basis.

Raising the level of Pell grants is particularly important, especially since the inflation-adjusted value of such grants dropped by more than 40 percent from 1975 to 1995 and has only recently begun to recover lost ground.

Other proposals would make future borrowing less onerous by reducing the fees associated with student borrowing or by permitting deductions for interest paid on student loans. Whatever package of measures finally emerges, one telling barometer of success will be the progress achieved in easing reliance on student borrowing and in easing the burden on those students who do incur debt.

■ Preserve the flexibility achieved through campus-based aid. A number of the federally supported student aid programs (including Supplemental Educational Opportunity Grants, work-study, and low-interest Perkins loans) are administered by campus officials. While the amounts of aid awarded under such programs must adhere to federal guidelines, college administrators are given a measure of discretion to assess students' individual circumstances in crafting an appropriate package of need-based aid – circumstances such as the death of a parent, the unemployment of a family member, or unusual medical expenses. The on-campus programs thus introduce an essential element of flexibility into the system as a whole, allowing for more sensitive determinations of individual need. Preserving them should be a substantial consideration in shaping the right set of enhancements and reforms.

Promoting broad-based access to college is by no means the responsibility of government alone. Colleges and universities face a moral and economic imperative to keep higher education within students' economic reach. However costly it may be for institutions to provide an excellent education – and costly it is – placing such education beyond the means of able students is ultimately a self-defeating course. Our colleges and universities must not relent in their continuing efforts to moderate the growth of tuition and student fees and must commit ample institutional resources to need-based student aid insofar as their varied circumstances allow.

To this end, Harvard (with help from Radcliffe) will this year devote institutional funds of roughly $38 million to undergraduate scholarship grants alone, representing more than 90 percent of the total need-based scholarship funds available to students at Harvard College. Need-based grants have been awarded to nearly half the members of the Class of 2000, from a broad band of family income groups, and the average grant of roughly $13,500 forms part of a total average aid package for scholarship students of nearly $20,000 (more than two-thirds of total tuition and fees). In addition, Harvard has recently announced the smallest percentage rise in undergraduate tuition and fees since 1962. Slower tuition growth and well-endowed programs of need-based aid remain a priority of the first order – not only for Harvard, but for many other colleges and universities that are working both to control their costs and to allot greater institutional resources to student aid.

Only by following this course can we confidently hope to preserve and extend the government-university partnership that has made American higher education the best and most broadly accessible system of its kind in the world. And only by affirming our institutions' enduring commitment to broad-based access will we fulfill higher education's promise to the students and the society it aims to serve.

*Neil L. Rudenstine is president of Harvard University.*

THE NEW YORK TIMES, THURSDAY, NOVEMBER 14, 1996 P-5B

# Plans Offered to Help Parents Save for College

By The New York Times

HARTFORD, Nov. 13 — The State Treasurer today proposed two programs aimed at encouraging parents to save for their children's college education, including a tuition prepaymentplan similar to those in 11 other states, including Massachusetts and Pennsylvania.

The prepayment plan would let parents pay all or a part of their child's tuition at current rates, with a guarantee that the payment would cover the cost of the child's education regardless of inflation or future tuition increases.

The other plan would allow parents, through the state, to invest in mutual funds to save for college without having to pay taxes on the yearly interest.

The State Treasurer, Christopher B. Burnham, said that some taxes would be due when the money was withdrawn for college, but that this would be at the tax rate of the student.

"It is a wonderful program which I think is going to help our residents save for their children's college education," Mr. Burnham said.

Both proposals require approval by the State Legislature, and Democrats — who in January will control both houses of the Legislature here — said today that they were willing to support a college savings program.

But State Senator Kevin B. Sullivan, the Democratic Senate leader, said he was concerned that the prepayment program might leave state public colleges in 10 or 20 years with a debt they cannot handle, if tuition costs have risen more than the interest they received on the original tuition payment.

"Anything that encourages people to save is a good program," Senator Sullivan said. "I just want to make sure we are not misleading ourselves that there isn't an obligation at the end."

Cameron C. Staples, a Democrat who is chairman of the House Education Committee, said he preferred a program that gives parents both more flexibility and more security. In a prepayment program, parents sign up only for those Connecticut colleges that decide to participate.

***A program would let parents pay tuition in advance at current rates.***

The prepayment program would work this way: if tuition at the University of Connecticut were $10,000 a year and a parent invested $1,000, the parent would be credited with 10 percent of whatever the tuition was when the student enrolled.

Mr. Burnham said a number of colleges have expressed interest, although the spokesmen at two colleges reached this afternoon — Yale University and UConn — said it was too early to say if they would participate.

Two years ago, Yale eliminated a similar program of its own, which allowed parents to pay for four years at Yale at the freshman-year rate, said Cynthia Atwood, a spokeswoman for Yale.

Scott Brohinsky, director of university and governmental relations at the University of Connecticut, said the university must look at the financial implications for the school. But he applauded the Connecticut Treasurer and the state for addressing the problem of paying for college.

In Massachusetts, which started a prepayment program in February 1995, more than 33,000 children are enrolled in the program, called the U. Plan, said Kurt M. Muller, its director of operations. They have so far invested about $46 million, or an average of $1,400 each, Mr. Muller said.

Seventy-five of the 90 colleges in Massachusetts are participating so far, including all its public schools as well as Wellesley College, the College of the Holy Cross and Boston University, he said. Harvard University and the Massachusetts Institute of Technology are not participating, he said.

Mr. Muller said that five other states are starting tuition prepayment programs next year. New York and New Jersey have just begun to look at such programs, he said.

November 12, 1996 • **Education Daily** P-3

# Prepaid Tuition Plans Expect More Growth With Tax Relief

Enrollment in state prepaid tuition savings plans is expected to top 1.7 million in 10 years, with savings totaling $6.5 billion, the College Savings Plan Network (CSPN) estimates.

With the number of participating states expected to grow, enrollment will surge from the current 500,000 families, says a report released Friday by CSPN, which coordinates information and monitors legislation.

The network expects more states to adopt savings programs since Congress has lifted federal taxes on the money until it's disbursed.

"Middle-income families want the peace of mind provided by a plan that guarantees their savings will keep pace with rising tuition costs," said Barbara Jennings, chairman of CSPN and executive director of the Ohio Tuition Trust Authority, in a statement.

So far, 12 states have tuition savings plans and six others expect to launch their own within the next year *(see chart, p.4)*. The remaining states are studying plan options, which range from prepaid tuition to state college savings bonds to savings plan trusts.

The Internal Revenue Service had told states that it would tax prepaid tuition funds as a private enterprise and annually tax parents' contributions to those funds But this summer, Congress gave state agencies that administer a college savings program tax-deferred status until the money is distributed.

A 1995 study said policymakers were shying away from the programs, fearing taxes would deplete the funds

*"Special Report on State College Savings Plans" is $10 from Council of State Governments, 3560 Iron Works Pike, P.O. Box 11910, Lexington, Ky. 40578-1910, (606)244-8175.*
—Rebecca S. Weiner

Higher ED Costs

**BRIEFING NOTES:** Prepared by David Longanecker
**June 17 luncheon: Secretary Riley, Dave Longanecker, Joe Dionne (McGraw-Hill), and Tom Kean.**
**Subject: Briefing on Council for Aid to Education's Report entitled <u>Breaking the Social Contract: The Fiscal Crisis in Higher Education.</u>**

Mike — I have a copy of this report if you want it. — Bill

Description of the Project and Report:

The Council for Aid to Education is a group of business and education leaders that receives substantial McGraw-Hill support to examine issues critical to the future success of education. The Council's Commission on National Investment in Higher Education has been meeting since 1994 to examine the financial state of American Higher Education. The Commission has been chaired by Joe Dionne and Tom Kean, but includes many friends of ours who are substantial educators and/or business persons (Ed Donley, Mitchell Fromstein, Vartan Gregorian, Bruce Johnstone, Barry Munitz, Diana Natalicio, Bob Albright, etc.) It was staffed by Roger Benjamin from Rand.

Findings of the Report:

The findings are very similar to the "challenges" that the Secretary talks about, except that they are presented as an "unprecedented . . . time bomb ticking" and as "calamitous.

Specifically, the crisis is defined as the collision of (1) a huge increase in demand, (2) the escalation of operating costs, and (3) the flattening of public-sector financial support.

The report contends that if current trends continue, the revenue shortfall in higher education will result in a system receiving ½ the funding it needs to operate, and thus tremendous reductions in access to the system.

Recommendations:

(1) America's political leaders should reallocate public resources to this high priority. *This is obviously quite consistent with the President's message, and, indeed, the Report is quite complimentary of the President's initiatives, though it says they aren't enough.*

(2) Higher Education should make major structural changes in its governance to allow for funding and maintaining high value activities and scuttling others. *This section of the report condemns the current form of Academic governance, which allows faculty to hold institutions hostage.*

(3) Institutions should pursue greater mission differentiation. *Institutions should not try to be all things to all people, but should work together to assure their different missions mesh.*

(4) Institutions should develop sharing arrangements to improve productivity. *I was surprised that there was so little discussion in this report about new delivery mechanisms, particularly through the use of technology. About the only reference to this was to use it more effectively in survey introductory courses.*

(5) Every future worker should be encouraged to pursue some form of postsecondary education or training. *Our theme.*

This report is being released at the National Press Club just before our luncheon.

Suite 900
1200 G Street, NW
Washington, DC 20005-3802
Tel 202 383 3701
Fax 202 383 3718
cbrad@mh.com

Cynthia H. Braddon
Vice President
Washington Affairs

The McGraw-Hill Companies

May 30, 1997

Mr. David A. Longanecker
Assistant Secretary for Postsecondary Education
US Department of Education
4082 Regional Office Building
7th & D Streets, SW
Washington, DC 20202

Dear David:

I hope all is well with you. I understand that you are out on travel today. The reason I had left you a phone message this morning was to ask about your schedule and invite you to lunch with Joe Dionne and former New Jersey Governor Tom Kean on June 17, 1997.

Joe and Tom Kean were interested in briefing you and Secretary Riley about the report they are announcing to the public that morning at a press conference at the National Press Club. As you probably are aware, Joe and former Governor Kean co-chaired the Council for Aid to Education's Commission on National Investment in Higher Education. Their report, which is the result of their studies and deliberations since the Commission joined together in 1994, is entitled: *Breaking the Social Contract: The Fiscal Crisis in Higher Education.* Enclosed is an advance, preliminary copy for your review.

Please let me know if this lunch appointment would work for you. I look forward to hearing from you.

Sincerely,

Cindy

# BREAKING THE SOCIAL CONTRACT

## The Fiscal Crisis in Higher Education

CAE

# Members of the Commission on National Investment in Higher Education

Joseph L. Dionne, Chairman and CEO, McGraw-Hill, Inc. (Cochair)

Thomas Kean, President, Drew University (Cochair)

Robert Albright, Executive Vice President (Retired), Educational Testing Service

John Biggs, Chairman and CEO, TIAA-CREF

Edward Donley, Former Chairman, Air Products and Chemicals

Mitchell Fromstein, Chairman and CEO, Manpower Incorporated

Vartan Gregorian, President, Brown University

D. Bruce Johnstone, Chancellor, State University of New York

David Lascell, Attorney at Law, Hallenback, Lascell, Norris and Zorn

Harold McGraw, Jr., Chairman Emeritus, McGraw-Hill, Inc.

Barry Munitz, Chancellor, California State University

Diana Natalicio, President, University of Texas at El Paso

Charles Reed, Chancellor, State University of Florida System

Piedad F. Robertson, Superintendent and President, Santa Monica College

Hoke Smith, President, Towson State University

John Zeglis, General Counsel and Senior Executive Vice President, Corporate Affairs, AT&T Company

## Ex-officio Members

Roger Benjamin, President, Council for Aid to Education

Judith S. Eaton, Chancellor, Minnesota State Colleges and Universities

Letter goes here. . .

# Overview

For well over a century, the American higher education system has set the world standard for academic excellence and equitable access for all citizens. The Morrill Act of 1862, which created the land grant university, guarantees that all citizens who can profit from higher education will have access to it. Today, however, there are signs that this far-sighted social contract may soon be broken. The higher education sector—by which we mean both public and private institutions of postsecondary education and training—faces challenges unprecedented in its history, and it is floundering in response.

The monetary difficulties of colleges and universities, thought for a time to be temporary, now appear to be part of long-term trends in the demand for enrollment and the supply of funding. Demand has increased sevenfold since World War II and is expected to continue growing over the next two decades. At the same time, operating costs have escalated and public-sector financial support has flattened. As a result, many colleges and universities have had to sharply increase tuition and fees and look for ways to control costs in order to avoid financial disaster.

To examine the dimensions and implications of these trends, the Council for Aid to Education (CAE) launched the Commission on National Investment in Higher Education in 1994. As members of the Commission, we addressed two major questions:

- Will the current revenue base and funding sources be sufficient for meeting higher education's future needs?
- If not, what steps can be taken to avert a fiscal crisis?

What we found was a time bomb ticking under the nation's social and economic foundations: *At a time when the level of education needed for productive employment is increasing, the opportunity to go to college will be denied to millions of Americans unless sweeping changes are made to control costs, halt sharp increases in tuition, and increase other sources of revenue.*

As service-related jobs have come to dominate the workplace, the college degree—or at least some form of postsecondary education and training—has replaced the high school diploma as the entry card into rewarding employment. Those who only finish high school—or drop out—start on the lowest rung of the wage ladder and will see their real hourly wages actually decline over their working lives. Unless the nation makes a concerted effort to raise the level of education and skill of these Americans, the wage disparity between the rich and the poor will become so large that it will threaten both America's social stability and its core democratic values. Widespread access to higher education is therefore critical to the economic health and social welfare of the nation.

The higher education sector, however, is facing a catastrophic shortfall in funding. Given current trends in both funding and the costs of higher education, the deficit in operating expenses for the nation's colleges and universities will have quadrupled by 2015. Assuming tuition increases no faster than inflation, by that year U.S. colleges and universities will fall $65 billion short (in 1995 dollars) of the annual budget they need to educate the same proportion of the population they serve today. If, however, tuition increases at current rates—basically doubling by 2015—the impact on access will be devastating: effectively half of those who want to pursue higher education will be shut out.

To address a crisis of such proportions, we call for a two-pronged strategy: increased public investment in higher education and comprehensive reform of higher education institutions to lower costs and improve services. The second of these, institutional reform, is in fact a prerequisite for increased public funding. Unless the higher education sector changes the way it operates by undergoing the kind of restructuring and streamlining that successful businesses have implemented, it will be difficult to garner the increases in public funding needed to meet future demands.

More specifically, we make these recommendations:

- America's political leaders—the President, Congress, governors, mayors, and other state and local officials—should reallocate public resources to reflect the growing importance of education to the economic prosperity and social stability of the United States. Public funding of higher education has stagnated since 1976. It is time for the nation to reverse this policy.

- Institutions of higher education should make major structural changes in their governance system so that decision makers can assess the relative value of departments, programs, and systems in order to reallocate scarce resources. This will entail improving performance-based assessment, defining and measuring faculty productivity, and integrating accounting systems.

- As part of their overall restructuring, colleges and universities should pursue greater mission differentiation to streamline their services and better respond to the changing needs of their constituencies. Individual institutions and parts of statewide systems should focus on their points of comparative advantage rather than all striving to become full-service campuses. Community colleges, undergraduate universities, and research universities, for example, should embrace different missions, give priority to activities central to those missions, and reduce or eliminate more-marginal activities.

- Colleges and universities should develop sharing arrangements to improve productivity. A greater sharing of resources—requirements, classes, services, infrastructure, libraries—could lead to significant savings and even improve services.

- It is time to redefine the appropriate level of education for all American workers in the 21st century. All citizens planning to enter the workforce should be encouraged to pursue—as a minimum—some form of postsecondary education or training.

This reform agenda cannot be implemented by the higher education establishment alone. A sea change of this sort requires the active participation of leaders in government, business, and education, as well as the American public. With this report, we hope to convey the urgency of the situation. In our view, the enormous deficits facing the higher education sector in the near future are more critical than the much publicized crisis in the Social Security system. Indeed, unless America manages to open up the narrowing bottleneck of higher education, there will not be enough economic growth to support *any* version of the Social Security plans being discussed. In very real and practical terms, education is the key to the nation's future. Americans must ensure that it becomes a national priority. ♦

# The Threat from Within

Recent shifts in America's economy have made higher education more significant than ever. The industrial jobs that once formed the backbone of the economy are dwindling and will provide employment for only 10 percent of the workforce by the year 2000. The service-related jobs that are taking their place require a level of knowledge and skill that, for the most part, can be gained only through programs offered at colleges and universities. If workers in today's economy are cut off from higher education, they will be unable to attain the proficiency levels needed to master new technologies and enter new occupations.

This gradual shift in the educational requirements of today's workforce has put great pressures on the entire educational system. The nation must educate a larger and more diverse population to levels never before required. Those who are content with a high school diploma or with not completing high school are likely to face a bleak economic future. The growing disparity in the incomes of the rich and the poor is testimony to this fact. If current trends in wages and family income persist, the economic disparities that will exist in America by 2015 will pose a grave danger to society:

- A much larger proportion of the population will fall below the standard of living considered average today.
- The real hourly wages of the average male worker will decline by about 25 percent compared to what the average male earned in the 1970s. For those near the bottom of the wage distribution, hourly earnings will slip by about 44 percent.
- While family incomes in the highest earning bracket will increase by 50 percent, the earnings of the poorest families will decline by about 36 percent from the levels of comparable families in 1976, creating an unprecedented income gap between the nation's rich and poor.
- The proportion of immigrants in the population will increase to 12 percent of the labor force by 2015. Unless immigration policy changes, most of the new immigrants will come from Mexico and Central America, a group with historically low levels of education.
- College education will not be equally distributed among ethnic/racial groups, creating little chance for underrepresented groups to improve their standard of living. As a result, the educational and economic fault lines in the United States will be drawn increasingly in terms of ethnicity and race.

This portrait of the future is not a prediction but a simple extrapolation of the earning patterns, described more fully below, of the 20-year period from 1976 to 1995 (the most recent year for which data were available). We believe the growing gap between the rich and the poor is one of the greatest threats to America's social order. At the heart of this problem is the profound change that has taken place in the level of knowledge and skill required to be a productive worker in today's economy. Improving the education and training of all Americans is, in our view, the only way to combat this threat and reduce the growing divide.

## Trends in Wages and Family Income

As has been well documented in research, wage and family income disparities have been growing since 1976. Figure 1 shows the distribution of hourly wages among all male workers in the United States in real terms, adjusted for inflation and indexed to 1976. (In other words, 1976 is shown as a base, and wages estimated for subsequent years are shown as a percentage of what they were in 1976.) The figure shows only male wages, but disparities in female wages are growing at about the same rate. The top line shows changes in earning levels for workers at the 90th percentile of all male wage earners. It shows slow growth over the 20 years extrapolated out to the future.

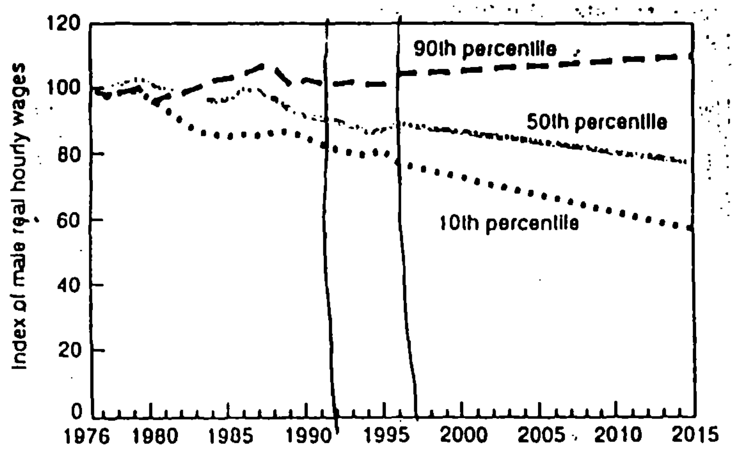



Figure 1—Long-Term Trends in Hourly Wages of Male Workers

The message here is that the highest paid workers will hold their own to 2015. Those in the 50th percentile—workers right in the middle of the distribution—have lost about 14 percent in real wages over the 20 years; by 2015, they will be earning about 25 percent less than they earned in 1976. But the most striking consequence of current trends shows up in the figures for workers in the bottom 10 percent. If current trends continue, these workers will be earning little more than half of what they earned in 1976.

The numbers for family income over the same period show even wider disparity. As Figure 2 shows, families at the top of the scale will be earning about 50 percent more in 2015 than they did in 1976. This is not because men's wages are going up, but because more women are working and families tend to be smaller than they used to be, creating more workers in the economy per family. Those in the middle of the income distribution scale will be a little better off, though not much. But for those in the bottom 10th percentile—consisting largely of single-parent families headed by women and families of low-educated immigrant populations—we see a 36 percent fall in income compared to what families in that income bracket earned in 1976. In that year, families at the 90th percentile enjoyed income levels nine times greater than those of families at the 10th percentile. By 1993, the disparity was twelvefold. At this rate, the ratio will exceed sixteen to one by 2015.

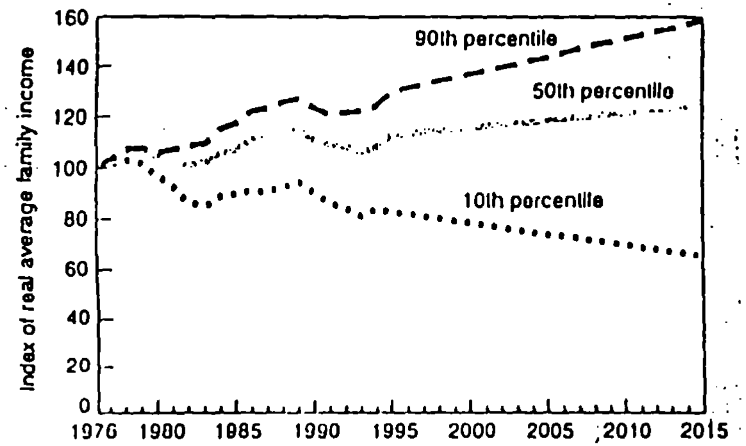



Figure 2—Long-Term Trends in Family Earnings

## Changes in the Immigrant Population

A doubling in the proportion of immigrants in the workforce since the 1970s (over 10 percent of the workforce is now foreign born) and the lower educational level of more-recent immigrants are additional factors in the growth of income disparity. Figure 3 shows the changing face of America's immigrant workforce. In 1970, only 6 percent of the immigrant workforce came from Mexico or Central America and 68 percent came from Europe. In 1990, 21 percent of the immigrant workforce came from Mexico or Central America and only 34 percent from Europe. Because the educational level of Mexican and Central American immigrants is lower than that of other immigrant groups, the earnings of more-recent immigrants have deteriorated relative both to native workers and to earlier immigrants and are likely to remain low throughout these immigrants' working lives. If these trends hold, a growing proportion of workers will have less than a high school diploma and will face declining earnings over their lifetimes.

## Education and Income: the Intimate Link

The single most important factor in determining level of income is level of education. Figure 4 shows the distribution of real hourly

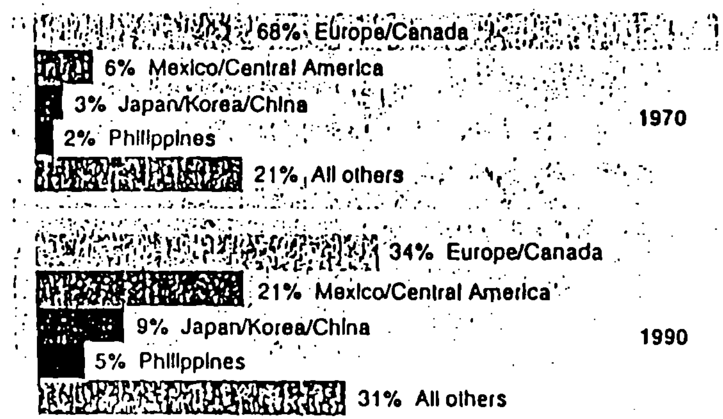



Figure 3—Changing Composition of America's Immigrant Population

wages of male workers by education level. Men with a college education have kept pace with inflation over the 20-year period, men with *some* college education have seen a decline in real income of 14 percent, and men with only a high school diploma have lost 18 percent. Meanwhile, real wages of high school dropouts have declined by 25 percent.

If these lines are drawn out another 20 years using the same rates, the result is devastating. By 2015, male workers with only a high school education will have lost 38 percent of what comparable male workers earned in 1976. And those without a high school diploma will have lost 52 percent in real earnings over the same period. If the U.S. economy continues to place a high value on a college-educated workforce, which we believe it will, then only college graduates will be able to hold their own economically out to 2015. Those who attend some college will not do badly, but those who stop pursuing an education before or after graduating from high school will lose ground over their working lives.

This economic polarization is particularly troublesome in that a growing proportion of the poor will be African American and Hispanic. Like non-Hispanic whites, African Americans and Hispanics suffer lifelong economic consequences if they do not pursue higher education. Because larger proportions of these two groups fail to go beyond high school, larger proportions of these groups are among the poor. Figure 5 shows an index that conveys the ratio

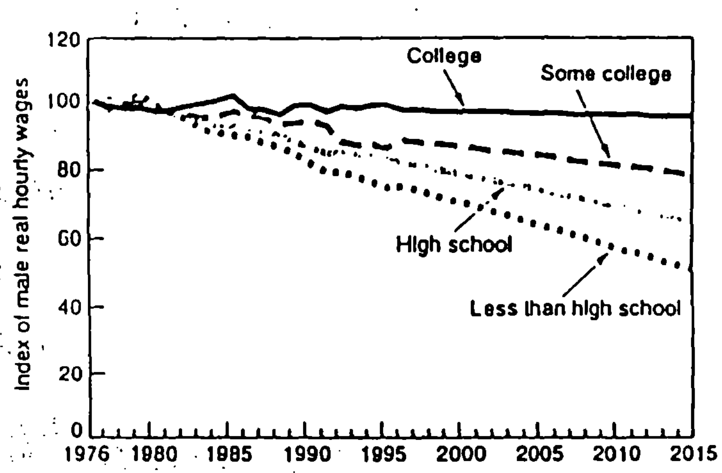



Figure 4—Distribution of Real Mean Hourly Wages for Male Workers by Education Level

of the number of students in higher education for various ethnic/racial groups to the total number of 18- to 29-year-olds in those groups. The figure plots changes in that index over the 20 years and extrapolates the rates out to 2015.

As of 1995, Asians and Pacific Islanders scored over 40 on this index, and non-Hispanic whites scored just over 30. In contrast, African Americans and Hispanics scored about 20 and 18, respectively. Although participation rates are increas-

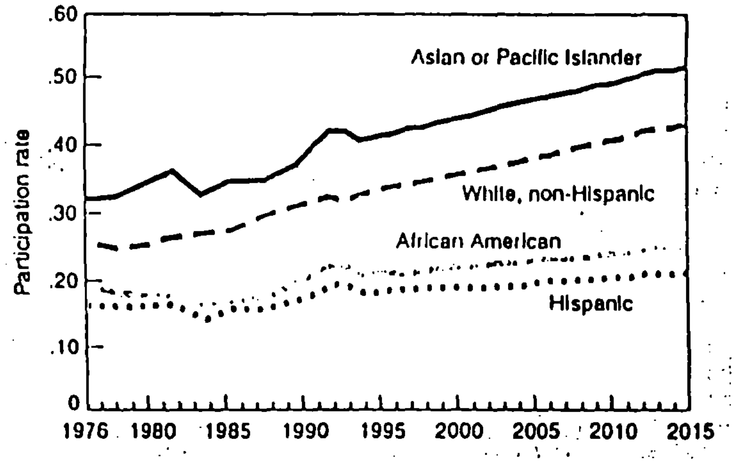



Figure 5—Rate of Participation of Different Ethnic/Racial Groups in Higher Education

ing for all groups, they are currently increasing more rapidly for whites and Asians than for African Americans and Hispanics. As a result, the gap could widen considerably by 2015. Only by increasing the proportion of African Americans and Hispanics going to college can the gap be stabilized or reduced.

It is in the interest of all Americans to promote higher levels of education and training for those who are rapidly losing earning power in American society. Low levels of education are powerful predictors of welfare dependency, unemployment, and incarceration, all of which are very costly. Moreover, by 2015 the number of workers for every retiree on Social Security will be at least one-fifth what it was 50 years ago. This means that a shrinking proportion of American workers will not only have to maintain U.S. economic competitiveness in the global marketplace, but will also have to support the economic base of the rest of the nation at the same time. It is more important than ever that this workforce be adequately educated and trained. It is therefore in the national interest that the widest possible access to higher education be maintained. ♦

# Dimensions of the Fiscal Crisis

Will America's higher education sector be equipped to meet the needs of future students? By the year 2015, the nation must be prepared to educate over 4 million more students than it educated in 1995—simply because of population growth. If the proportion of the population that wants to attend college also increases, as we think it should, then that number will be even higher. Will the revenue base of colleges and universities be sufficient to handle such an increase in the numbers of students?

Our analysis shows that if current funding trends continue, the higher education sector will face a calamitous shortage of resources. Unless public funding increases significantly and institutions undergo fundamental internal restructuring to improve their productivity, access to higher education will be dramatically *reduced* in the future.

## Growth in Demand

Enrollment in America's colleges and universities has grown rapidly since the 1930s. This growth was fueled, of course, by a growing U.S. population—but while the population has only doubled since 1930, enrollment in higher education has expanded tenfold. The additional growth reflects the phenomenal increase in the percentage of Americans pursuing education beyond high school.

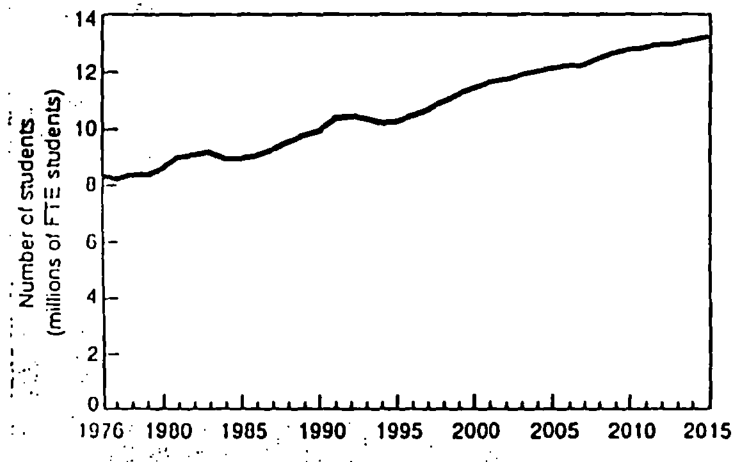



Figure 6—Past Enrollment and Projected Demand

U.S. population growth is expected to continue into the next century, as is the rate at which Americans go to college. As Figure 6 shows,[1] if these trends continue, the total number of students in colleges and universities will increase from the 1995 level of 10.3 million to about 13.2 million full-time equivalent (FTE) students by 2015.[2]

[1] The National Center for Education Statistics has published projections to 2006. We computed the participation rates by age implicit in those projections and extrapolated the trends in those rates through 2015. We then multiplied estimated participation rates by the census projections of age distributions of the population to 2015.

[2] Since many students attend college on a part-time basis, placing smaller burdens on institutions, they are traditionally counted as full-time equivalent students. For example, a part-time student whose course load is 70 percent of a full-time course load is counted as 0.7 FTE. By this method, higher education will have to educate approximately 3 million more FTE students.

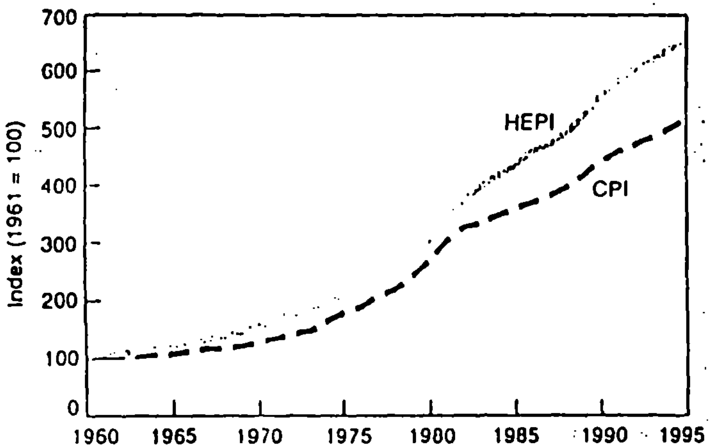



Figure 7—Growth of Costs to Higher Education Institutions

## Growth in Costs

The costs per student in higher education have also risen. In fact, they have grown consistently for at least 30 years, escalating sharply since the late 1970s. The Higher Education Price Index (HEPI), produced by Research Associates of Washington, reflects the real increases in the prices paid by higher education institutions for goods and services (faculty salaries, for example).[3] As Figure 7 shows, the HEPI rose more than sixfold between 1961 and 1995, much faster than inflation as measured by the Consumer Price Index (CPI). Between 1980 and 1995, the annual average rate of growth in the costs of providing higher education exceeded the CPI by a full percentage point. A sector whose costs grow faster than inflation for an extended period ultimately reaches the limits of available resources, as has been demonstrated in the health care industry.

## Decline in Public Funding

Given the increases in demand and costs, it is surprising that public funding has not shown similar increases. As Figure 8 shows, overall public appropriations to higher education—federal, state, and local support—grew slowly through the 1970s and early 1980s in real terms. In the mid-1980s, public support increased more substantially, but it then flattened out in the early 1990s.[4]

In effect, the United States has been underfunding higher education since the mid-1970s. Figure 9 shows the share of personal income allocated through government appropriations to higher education from 1960 to 1994. In the 1960s and early 1970s, Americans doubled

[3]The HEPI measures the average change in prices over time for a fixed basket of goods and services that higher education institutions buy to support current operations. These goods and services include salaries of faculty, administration, and other professional and nonprofessional personnel; contracted services such as communications and transportation; supplies and materials; equipment; library acquisitions; and utilities. See *Inflation Measures for Schools, Colleges, and Libraries*, Research Associates of Washington, Washington, D.C., 1995

[4]National Center for Education Statistics, *Digest of Educational Statistics*, U.S. Department of Education, Office of Educational Research and Improvement, Washington, D.C., various years.

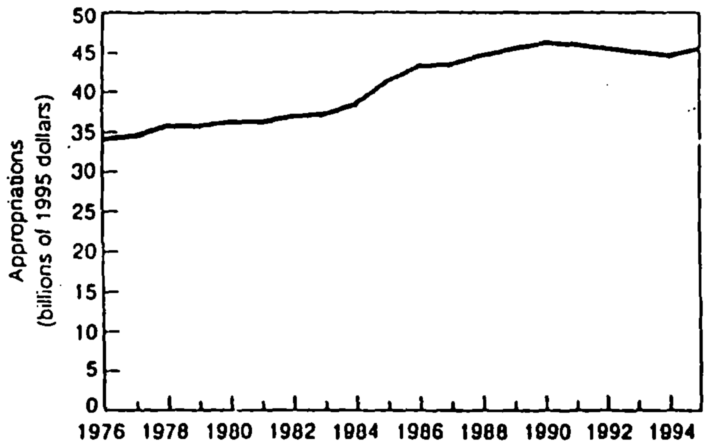



Figure 8—Government Appropriations to Higher Education over 20 Years

the share of their income that went to higher education—from $7 to about $14 per $1,000 earned. Since 1976, however, that share has been steadily decreasing.

Tax revenues as a share of personal income actually increased slightly over the period shown in Figure 9. In fact, they have been increasing since 1976. What has changed is government spending priorities. At the federal level, the growth of entitlements—most notably, Social Security, Medicare, and Medicaid—has dominated federal spending, as Figure 10 illustrates. Mandatory spending on entitlement programs and interest on the national debt consumed about 38 percent of the federal budget in 1965. In 1995, they accounted for about 67 percent. The entitlement programs focus largely on older Americans, which means that as the baby boomers age, the population drawing on these programs will increase. The Congressional Budget Office estimates that in 2005—less than a decade from now—these programs will consume almost 75 percent of federal revenues. This vast intergenerational transfer of wealth is squeezing higher education out of the federal budget.



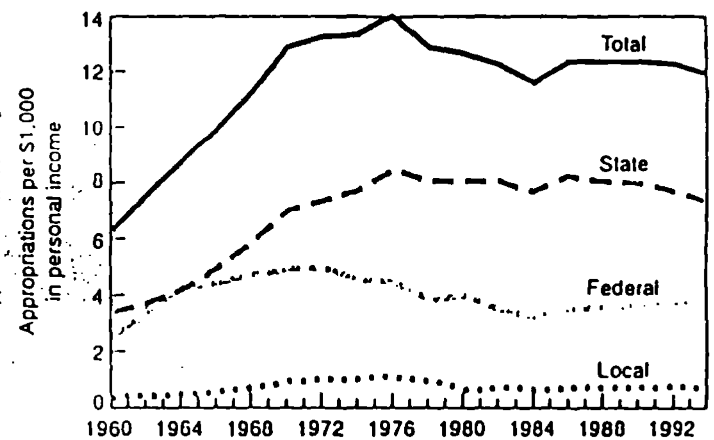



Figure 9—Share of Personal Income Allocated to Higher Education Since 1960

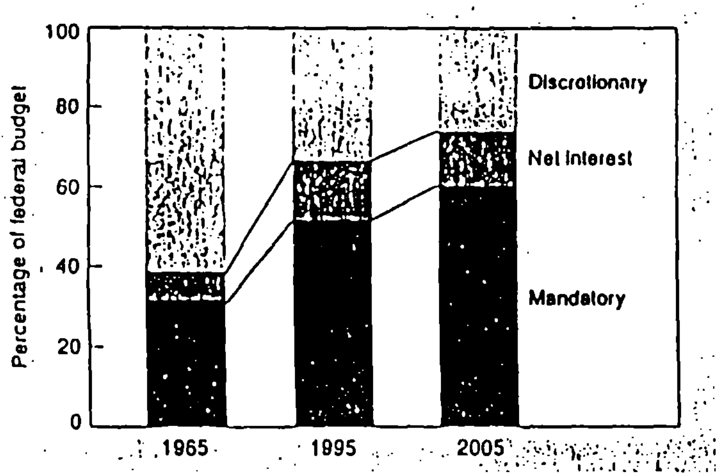



Figure 10—Erosion of Federal Budgetary Discretion by Entitlements

The situation at the state and local levels is very similar. Like the federal government, state and local governments are increasingly allotting greater shares of their budgets to health and welfare programs. And the plight of higher education in state and local budget battles is exacerbated by rapid increases in spending on corrections, mainly prisons. Figure 11 shows the distribution of state government spending on higher education, health and welfare, and corrections from 1976 to 1995 and extrapolates the trends through 2015 to indicate their consequences.

Clearly, government support for higher education has declined both economically and politically over a long period, and it will be difficult to bring it back to previous levels. Now that there are stringent fiscal limits on public resources, the government is beginning to ask the same kinds of questions of colleges and universities that it has asked of the health care industry—questions about cost, productivity, efficiency, and effectiveness. Until institutions of higher education can provide good answers to such questions, it will be difficult to increase public support and to regain the priority formerly given to higher education in federal, state, and local budgets.

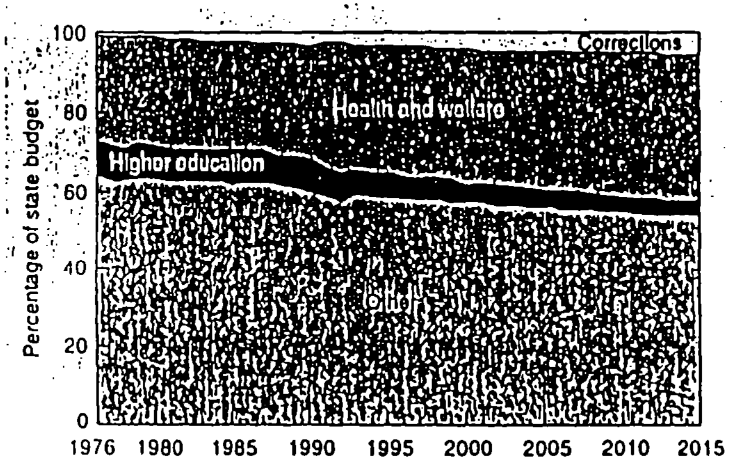



Figure 11—Distribution of State Expenditures

## Tuition Growth and Its Effect on Access

As their government support has decreased over the years, all institutions of higher education have had to charge students higher tuition and fees. In the mid-1970s, as shown in Figure 12, average annual increases in tuition revenues for the entire higher education sector were fairly moderate—slightly above inflation. Tuition began to grow much faster than the rate of inflation in the early 1980s. By the mid-1980s, tuition was climbing at rates well above the rate of inflation: in real (1995) dollars, tuition revenues in higher education increased by $5 billion between 1970 and 1980, grew by almost $20 billion between 1980 and 1990, and then increased by another $10 billion in the first four years of the 1990s.[5]

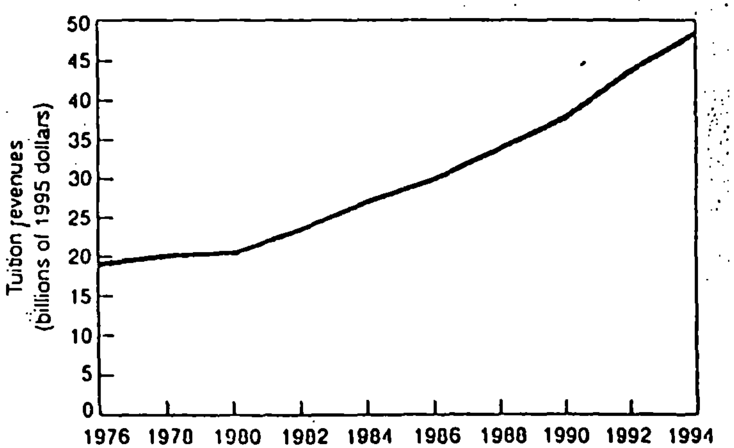



Figure 12—Growth of Tuition

If appropriate steps are not taken, higher education could become so expensive that millions of students will be denied access. Average real tuition, adjusted for inflation, approximately doubled in the 20 years from 1976 to 1995. Figure 13 shows that if it doubles again in the next 20-year period (1996 to 2015), about 6.7 million students will be priced out of the system. In other words, about one out of every two people we would expect to seek a college education will not be able to pay for it. Even if tuition increases by only 25 percent over the 20 years, one out of five students will be excluded.

The consequences of such exclusion will not be confined to the affected student population. Those who are denied access to college might not be able to afford to send their children to college 20 years later. The social and economic ills generated by inadequate levels of education will reverberate through successive generations.

Increased private sector support of higher education by alumni,

[5]Figure 12 shows gross tuition revenue and thus does not speak, for example, to the increasing efforts of private institutions to lower the net tuition price to many students. Few students actually pay the full price of tuition. Indeed, one of the reasons for the increasing cost of tuition is that universities and colleges are attempting to maintain access for low-income students by substituting aid packages for lost state support.

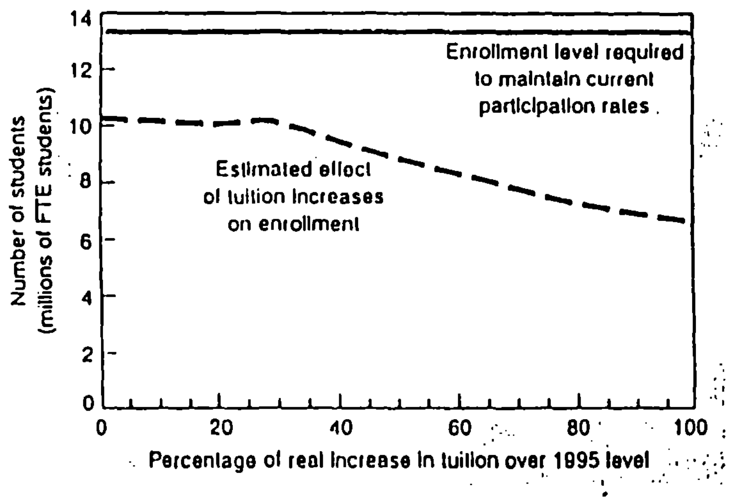



Figure 13—Effect of Increasing Tuition on Enrollment

other individuals, corporations, and foundations can help and has done so already: private grants, gifts, and endowment income have roughly doubled over the past two decades. However, in 1995, they provided only 8 percent of higher education's revenues—almost the same percentage as they provided in 1975. This private sector and endowment income represents a relatively small proportion of the total higher education budget and is more concentrated in the private, relatively elite, and wealthy institutions that serve a smaller share of the total student population.[6]

## The Bottom Line

Given the funding projections, it will be extremely difficult even to maintain today's enrollment rates, let alone provide for those of the future. Figure 14 illustrates the dimensions of the problem. The combination of government support to institutions and government support to students (i.e., the cost of subsidizing loans and giving grants) has failed to grow at anywhere near the rate at which costs have increased. Using 1976 as a point of comparison—the year that public funding for higher education as a share of personal income was at its highest—the figure shows the growing gap between the funding colleges and universities will need to operate, or their "resource requirements,"[7] and the funding that will be available if current trends in enrollment

[6]For trends in private giving, see *Voluntary Support of Education*, Council for Aid to Education, New York, annual. (See also www.cae.org.)

[7]Resource requirements do not include tuition revenue. They are the funds needed from federal and state support and voluntary giving by corporations and foundations, minus external funds for research. Figure 14 plots the degree of change in resource requirements since 1976, assuming that tuition increases are held to the rate of inflation. The value of these requirements in 1991 is shown as 2.0, suggesting that resource requirements doubled during that period.

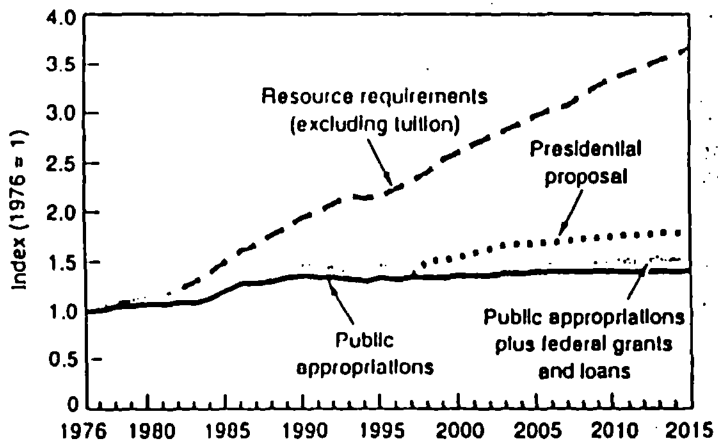



Figure 14—Real Amount Required Beyond 1976 Tuition to Pay for Higher Education

and costs continue. By 2015, that gap will have nearly quadrupled. The "presidential proposal" line in the figure shows an initial estimate of how the plan proposed by President Clinton in his State of the Union message might affect these calculations. While his proposal is clearly a step in the right direction, most of its increases are in the form of tax credits, which will benefit middle- rather than lower-income families.

[illegible], Pell

Translated into 1995 dollars, the resource requirements of the higher education sector (assuming it will serve the same proportion of students it serves today) will be approximately $131 billion annually. Again, this amount represents fiscal requirements over and above tuition, with tuition being assumed to increase no faster than the rate of inflation. If the trends in public funding of higher education over the 20-year period from 1976 to 1995 do not change, total appropriations from federal, state, and local government will be $47 billion by the year 2015. President Clinton's plan, if approved, would increase that amount to $57 billion; loans and grants would account for another $8 billion. That gives a total of $65 billion—half of what will be needed to serve the same proportion of the population now attending higher education institutions. ◆

# Institutional Roadblocks

Given the magnitude of the deficit facing American colleges and universities, it is surprising that these institutions have not taken more serious steps to increase productivity without sacrificing quality.[8] Many have adopted cost-saving measures, such as forced retirements and hiring freezes, but most of these actions have been partial and ad hoc.

The main reason why institutions have not taken more effective action is their outmoded governance structure—i.e., the decision-making units, policies, and practices that control resource allocation have remained largely unchanged since the structure's establishment in the 19th century. Designed for an era of growth, the current structure is cumbersome and even dysfunctional in an environment of scarce resources. In fact, impediments to change are built into the management assumptions and practices of colleges and universities. In that sense, higher education is a prime example of a public-sector institution struggling to deal with a changed environment.

The academic department, for example, which is the heart of the current governance structure, is based on the assumption that faculty members should govern themselves, making all decisions about what should be taught, who should be hired, and so forth. The continued sway of the department might be justified if departments were truly autonomous. In reality, however, they function as parts of a greater whole—one on which they are financially dependent.

Besides being decentralized and departmentalized, institutions are a maze of hierarchical structures operating independently of one another. The dean of a college of arts and sciences allocates resources among several dozen social science, humanities, life science, and physical science departments. The dean of engineering does the same for a variety of engineering programs. And the vice president for operations manages facilities, maintenance, parking, and campus security. Administrators report up or down their narrow chains of command, largely ignorant of what those in other parts of the institution are doing.

What is needed now is a systemwide process for reallocating resources among departments and other parts of the institution. Just as successful companies have learned to focus on their core competencies—the products and services they supply at a better quality and lower price than their competitors—higher education institutions and systems need to reexamine their missions and streamline their services to serve those missions. This task requires that operations be seen from a broad perspective, one that will lead to such questions as: Which of our centers, departments, colleges, or services enjoy comparative advantage over those of other education or training institutions? Would another classics professor contribute to the

[8] By increases in productivity we mean a measurable reduction in costs achieved while maintaining or improving effectiveness without sacrificing quality.

educational mission more than another mathematics professor? More than acquiring additional equipment for the geophysics laboratory? More than expanding the student counseling program? More than repairing classroom and dormitory roofs?[9]

The current governance structure actually prevents institutions and institutional systems from asking such questions. Moreover, finding answers for these types of questions will require not only a new decision-making process, but a concerted effort to generate data on the costs and benefits of providing different services. With the structure as it is now, decision makers have not had to choose among competing functions, so comprehensive information systems have not evolved to support such decisions. Higher education officials simply do not have the information they need to compare missions and functions and understand the trade-offs among the potential allocations being considered.

Clearly, these roadblocks need to be taken into account and surmounted before colleges and universities can streamline. One of our strongest recommendations is that institutional restructuring, including mission differentiation, be made a national priority.[10] Like the health care industry, the higher education sector must systematically address issues of cost, productivity, efficiency, and effectiveness as a prerequisite for increases in public sector investments. Indeed, if the higher education sector is to get a sympathetic ear from legislators, it needs strong advocacy from the business community, an ally it is unlikely to win unless it has put itself through the same sort of streamlining and reengineering that the business community has implemented to reduce costs and improve service.

We believe that colleges and universities must make major organizational changes. To do so, their governance systems must be changed so that they can reallocate scarce resources and permit fundamental reform in the way they do business. Moreover, we urge academic leaders to actively involve the business community in their restructuring. Business leaders have extensive experience in such matters, as well as a direct interest in the outcome of education reform. ♦



[9]Unlike large research universities, small liberal arts colleges do not have multiple layers of management. While this means that their administrative costs are lower, it also means that there is less room to maneuver internally when restructuring. As a result, other measures—such as sharing among institutions and creative use of educational technology—become even more important.

[10]It is important to note that some colleges and universities have taken important steps down the restructuring path, beginning with reforms of administrative functions. The Pew Higher Education Roundtable, for example, has performed a useful role in bringing together leaders of private universities and colleges to discuss restructuring ideas. (See *Policy Perspectives*, a continuing series edited by Robert Zemsky and William Massy, Pew Higher Education Research Program.) Important experiments are being conducted by higher education leaders in California and Florida, to name just two states; and the Foundation for Independent Higher Education has launched a pilot project to assist independent colleges that want to undertake cost containment efforts. These are isolated efforts, however—not the restructuring of the entire higher education sector that we believe is an urgent necessity.

# Recommendations

The problems delineated in this report must be addressed. We challenge America to adopt—and make into goals—our recommendations for putting U.S. colleges and universities on a path to financial health and keeping the door open to all Americans willing and able to reap the benefits of higher education. Meeting this challenge will require a combination of increased government investment and far-reaching institutional reforms that will provide high-quality education at lower cost. Increased public funding could be tied to institutional reform to create incentives to innovate.



## Recommendation 1:

***America's political leaders—the President, Congress, governors, mayors, and other state and local officials—should reallocate public resources to reflect the growing importance of education to the economic prosperity and social stability of the United States.***

If the American people had known how the educational requirements of the workforce were going to grow in the 20 years from 1976 to 1995, it is doubtful that they would have allowed public funding to stagnate as it has. We believe Americans should no longer tolerate inaction: The nation should not be allowed to continue to drift toward educational mediocrity and the ominous levels of economic inequality that are arising. We are confident that once the American public and their leaders are aware of the dangers of the current course, they will act to increase public support for higher education—even if that means reducing the level of support for other public sectors.

For example, we believe it is a reasonable goal for the nation's government—the federal, state, and local levels—to attempt to reduce the deficit facing the higher education sector by half. At present, the federal government provides slightly less than a third of government appropriations to higher education; state and local governments provide the rest. The federal government might commit to providing one-third of the public sector share of the needed increase, with state and local governments providing the remaining two-thirds. We realize that this is an audacious goal given the current stresses on federal, state, and local budgets, but to do less is to put the nation at grave risk.

Meeting this goal would provide 50 percent of the future deficit. The rest of the shortfall would be made up by productivity gains achieved through the structural reforms described in the following three recommendations, and by modest increases in tuition and fees.

## Recommendation 2:

***Institutions of higher education should make major structural changes in their governance system so that decision makers can assess the relative value of departments, programs, and systems in order to reallocate scarce resources.***

In our view, the most pressing reform needed today in the higher education sector is the redesign of the governance structure of institutions so that decision makers can think and act strategically. In particular, colleges and universities must

1. Improve performance-based assessment. Academic institutions must develop a process of assessing the costs and benefits of providing all services. The goal of this effort is to provide an integrated information system about all costs, including capital costs and the value-added to students of their educational experience. We believe that unless higher education leaders move toward systematic performance-based assessment, the higher education sector will not be able to compete effectively with other demands on public funding in the future.

2. Define and measure faculty productivity. Productivity in higher education is, of course, difficult to define, but analysis needs to be conducted to identify productivity measures for education in general and for faculty in particular. The average teaching load in major research universities, for example, has been reduced from about eight courses a year to four or five. Institutions must calculate the effect of such changes on costs and benefits. No fundamental restructuring can occur until the current incentive system governing faculty behavior is changed.

3. Improve internal accountability in financial management. Budgeting and fund accounting systems, for example, are now completely separate. They should be reconciled so that higher education leaders have access to timely "profit and loss" information in areas for which they provide oversight.

## Recommendation 3:

*As part of their overall restructuring, colleges and universities should pursue greater mission differentiation to streamline their services and better respond to the changing needs of their constituencies.*

Greater mission differentiation among postsecondary education institutions and systems is the only way to ensure effective and efficient provision of all teaching and research functions over the next several decades. The current mission "creep"—e.g., community colleges attempting to become four-year degree-granting institutions, state universities becoming research centers, and research universities offering remedial instruction—violates the mission differentiation principle.

If higher education institutions and systems focus on their points of comparative advantage within the overall ecology of higher education, both productivity and improved quality will result. Specifically, the community colleges, undergraduate universities, and research universities should embrace different missions, give priority to activities central to those missions, and reduce or eliminate more-marginal activities.[11] We recommend the following specifics:

1. Community colleges should take a leadership role in workforce preparation. They need to expend more effort on education and training targeted to multiple constituencies, particularly workforce preparation, adult education, remedial education, and English as a Second Language. As our analysis suggests, one of the nation's most pressing social needs is improving the education level of all socioeconomic groups to avoid creating a larger and more permanent underclass. Institutions of higher education need to become more active partners in this enterprise. Because employers, high schools, and local governments are important stakeholders, community colleges should develop long-term strategic partnerships with these entities. We recommend that Congress and the states continue to provide incentives for employers, high schools, local authorities, and colleges to work together in designing and funding school-to-work programs that reach out to the community at large and to underrepresented groups in particular.

   As part of this initiative, colleges need to identify, strengthen, and give visibility to programs already focused on this outcome. These should be continued, improved, and built upon. To encourage commitment to such socially responsive initiatives, colleges should evaluate and reward faculty work in ways that provide the right incentives.

2. State undergraduate institutions should take the lead in teacher training and areas related to regional economic development. Eligibility for college will not improve among low-income socioeconomic groups unless K–12 school reform succeeds, and training and retraining of K–12 teachers is a prerequisite to that success. Recent studies show that teacher training in America is in disarray. We believe the most effective response to this national problem is for state undergraduate institutions to assume central leadership for teacher training and to make teacher training one of their highest priorities. In addition, faculty of state undergraduate institutions should be encouraged to assume a stronger leadership role in research and technical assistance for regional economic development. This applied research capability will enable these institutions to relate to the needs of the regions in which they exist.[12] The independent college sector should focus on its comparative advantage: the liberal arts undergraduate mission.

[11] *A Framework for Linking Resources to Mission in Higher Education*, provided in this report's volume of supporting analysis, presents a set of analytic tools useful for any institution or system of higher education contemplating changes in its mission.

[12] This is especially pertinent in fast-growing states having large urban populations and economically depressed areas.

3. The major research universities should focus on the promotion of research and graduate education.

To help maintain the critical funding needed to support research, a National Research University Act should be passed that allows federal investment in research to be concentrated in the nation's top-ranked research universities. Unlike its international competitors such as Japan and Germany, which direct their scarce federal resources to a few elite research groups, the United States spreads its dwindling federal dollars among more than 800 universities and laboratories. From 1976 to 1995, research funding grew only slightly, but the number of institutions receiving this funding increased by several hundred. Even more important, most of the institutions now receiving federal support for research are not even Carnegie-rated research and doctorate-granting universities.[13] This poorly targeted funding may not have mattered as much in the golden years of U.S. science and technology development, but now, with the decline in federal support of research, it may be a serious threat to the long-term health of the nation's economy.[14]

## Recommendation 4:

*Colleges and universities should develop sharing arrangements to improve productivity.*

As increased mission differentiation is achieved, a greater sharing of resources will lead to improved productivity of the entire higher education system:

1. Alignment. Seamless alignment of undergraduate requirements, transfer requirements, and joint teaching and degree-producing arrangements between community colleges, state undergraduate universities, and public research universities is now technically feasible and should be achieved over the next decade. Given the benefits of the new educational technologies afforded by the Internet, it is time for intersegmental alignment of undergraduate instruction to be encouraged by policymakers inside and outside higher education. Achievement of this goal alone would substantially increase undergraduate participation rates.

[13] The top 30 science and engineering departments garner 70 percent of federal research support while the other 30 percent is shared among several hundred other such departments.

[14] We leave open to public debate the most appropriate mechanism for implementing this reform. One option would be for the National Science Foundation to request universities to provide their qualifications in each research area. The Foundation could then identify the most qualified in each area and guarantee them a minimum level of support. Another option would be for the federal government to provide funding to graduate students for vouchers that could be used at the institution of their choice. The resulting competition would effectively decrease the fragmentation of funding to research universities. Whatever the mechanism, we believe there is great value in concentrating scarce dollars in the most worthy institutions. This does not mean, however, that elite research universities need not improve their efforts to diversify the ethnic makeup of their faculties. The failure to tap potential top-level scientific talent from all segments of society remains a significant barrier to full realization of America's human capital.

2. **Classes.** Every college and university teaches microeconomics at the freshman level; virtually every research university offers several introductory statistics courses. Departments and universities should collaborate to pool introductory courses and instructors as a way to save resources and provide the best instruction available in the subject. Use of the Internet may facilitate this task.

3. **Services.** Joint outsourcing of functions ranging from physical plant maintenance, electric power, health care, and police protection to joint purchasing of instructional and research equipment and supplies should be encouraged.

4. **Infrastructure.** Free-standing, separate physical plants—and, if they are public institutions, the system administrations that govern them—are currently an unquestioned requirement. In the coming cyberspace age, physical space will assume less importance. Combining all or parts of physical plants of, say, state undergraduate universities and community colleges that serve the same geographical area could save considerable resources.

5. **Libraries.** Substantial savings and improved library services can be obtained by focusing on the software needed to place library resources on the Internet rather than continuing to support individual research library collections.



## Recommendation 5:

***It is time to redefine the appropriate level of education for all American workers in the 21st century. All citizens planning to enter the workforce should be encouraged to pursue—as a minimum—some form of postsecondary education or training.***

Almost a century ago, Americans established a high school education as the basic educational requirement for all citizens. At that time, the telegraph was the height of communications technology and the telephone was on the horizon but far from an everyday instrument. Engineers and scientists looked to their slide rule as the best instrument for advanced calculations. Today, computers, the Internet, and a host of advanced technologies are everyday work tools. Clearly, it is time to recognize that the required educational level of a century ago is no longer adequate for preparing the modern workforce.

Instead of retaining the traditional sharp distinction between the bachelor's degree and all other nondegree categories, we find it preferable to think in terms of a continuum of learning activities appropriate for attaining specific goals. In the future, the focus should be on the attainment of more specific, measurable knowledge sets, rather than on simple attainment of a bachelor's degree. It is time to encourage the rich range of subbaccalaureate opportunities that can provide millions of citizens with the tools needed to survive in the emerging high-skill economy. ♦

# Supporting Documents


Benjamin, Roger, and Stephen J. Carroll, *A Framework for Linking Resources to Mission in Higher Education*, DRU-1623-IET, Santa Monica, Calif.: RAND, January, 1997.

Benjamin, Roger, and Stephen J. Carroll, "Impediments and Imperatives in Restructuring Higher Education," *Education Administration Quarterly*, Vol. XXXII, Supplemental, December 1996, pp. 705–719.

Carroll, Stephen, and Eugene Bryton, *Higher Education's Fiscal Future*, DRU-1601-IET, Santa Monica, Calif.: RAND, February 1997.

Elms, Debbie, *Preliminary List: Higher Education Indicators—Resources Available*, DRU-1597-IET, Santa Monica, Calif.: RAND, February 1997.

Gates, Susan, and Ann Stone, *Understanding Productivity in Higher Education*, DRU-1596-IET, Santa Monica, Calif.: RAND, February 1997.

Guess, Gretchen, and Stephen Carroll, *Patterns in Federal Support for R&D: 1973–1994*, DRU-1598-IET, Santa Monica, Calif.: RAND, February 1997.

McArthur, David, and Matthew Lewis, *Untangling the Web: Applications of the Internet and Other Information Technologies to Higher Education*, DRU-1401-IET, Santa Monica, Calif.: RAND, January 1997.

Way-Smith, Susan, *Information and Resource Systems for Higher Education: A Briefing*, DRU-1599-IET, Santa Monica, Calif.: RAND, February 1997.

Suite 900
1200 G Street, NW
Washington, DC 20005-3802
Tel 202 383 3701
Fax 202 383 3718
cbrad@mh.com

Cynthia H. Braddon
Vice President
Washington Affairs

The McGraw·Hill Companies

May 30, 1997

Mr. David A. Longanecker
Assistant Secretary for Postsecondary Education
US Department of Education
4082 Regional Office Building
7th & D Streets, SW
Washington, DC 20202

Dear David:

I hope all is well with you. I understand that you are out on travel today. The reason I had left you a phone message this morning was to ask about your schedule and invite you to lunch with Joe Dionne and former New Jersey Governor Tom Kean on June 17, 1997.

Joe and Tom Kean were interested in briefing you and Secretary Riley about the report they are announcing to the public that morning at a press conference at the National Press Club. As you probably are aware, Joe and former Governor Kean co-chaired the Council for Aid to Education's Commission on National Investment in Higher Education. Their report, which is the result of their studies and deliberations since the Commission joined together in 1994, is entitled: *Breaking the Social Contract: The Fiscal Crisis in Higher Education.* Enclosed is an advance, preliminary copy for your review.

Please let me know if this lunch appointment would work for you. I look forward to hearing from you.

Sincerely,

Cindy

# BREAKING THE SOCIAL CONTRACT

## The Fiscal Crisis in Higher Education

CAE
Council for Aid to Education
An Independent Subsidiary of RAND

# Members of the Commission on National Investment in Higher Education

Joseph L. Dionne, Chairman and CEO, McGraw-Hill, Inc. (Cochair)

Thomas Kean, President, Drew University (Cochair)

Robert Albright, Executive Vice President (Retired), Educational Testing Service

John Biggs, Chairman and CEO, TIAA-CREF

Edward Donley, Former Chairman, Air Products and Chemicals

Mitchell Fromstein, Chairman and CEO, Manpower Incorporated

Vartan Gregorian, President, Brown University

D. Bruce Johnstone, Chancellor, State University of New York

David Lascell, Attorney at Law, Hallenback, Lascell, Norris and Zorn

Harold McGraw, Jr., Chairman Emeritus, McGraw-Hill, Inc.

Barry Munitz, Chancellor, California State University

Diana Natalicio, President, University of Texas at El Paso

Charles Reed, Chancellor, State University of Florida System

Piedad F. Robertson, Superintendent and President, Santa Monica College

Hoke Smith, President, Towson State University

John Zeglis, General Counsel and Senior Executive Vice President, Corporate Affairs, AT&T Company

## Ex-officio Members

Roger Benjamin, President, Council for Aid to Education

Judith S. Eaton, Chancellor, Minnesota State Colleges and Universities

Letter goes here. . .

# Overview

For well over a century, the American higher education system has set the world standard for academic excellence and equitable access for all citizens. The Morrill Act of 1862, which created the land grant university, guarantees that all citizens who can profit from higher education will have access to it. Today, however, there are signs that this far-sighted social contract may soon be broken. The higher education sector—by which we mean both public and private institutions of postsecondary education and training—faces challenges unprecedented in its history, and it is floundering in response.

The monetary difficulties of colleges and universities, thought for a time to be temporary, now appear to be part of long-term trends in the demand for enrollment and the supply of funding. Demand has increased sevenfold since World War II and is expected to continue growing over the next two decades. At the same time, operating costs have escalated and public-sector financial support has flattened. As a result, many colleges and universities have had to sharply increase tuition and fees and look for ways to control costs in order to avoid financial disaster.

To examine the dimensions and implications of these trends, the Council for Aid to Education (CAE) launched the Commission on National Investment in Higher Education in 1994. As members of the Commission, we addressed two major questions:

- Will the current revenue base and funding sources be sufficient for meeting higher education's future needs?
- If not, what steps can be taken to avert a fiscal crisis?

What we found was a time bomb ticking under the nation's social and economic foundations: *At a time when the level of education needed for productive employment is increasing, the opportunity to go to college will be denied to millions of Americans unless sweeping changes are made to control costs, halt sharp increases in tuition, and increase other sources of revenue.*

As service-related jobs have come to dominate the workplace, the college degree—or at least some form of postsecondary education and training—has replaced the high school diploma as the entry card into rewarding employment. Those who only finish high school—or drop out—start on the lowest rung of the wage ladder and will see their real hourly wages actually decline over their working lives. Unless the nation makes a concerted effort to raise the level of education and skill of these Americans, the wage disparity between the rich and the poor will become so large that it will threaten both America's social stability and its core democratic values. Widespread access to higher education is therefore critical to the economic health and social welfare of the nation.

The higher education sector, however, is facing a catastrophic shortfall in funding. Given current trends in both funding and the costs of higher education, the deficit in operating expenses for the nation's colleges and universities will have quadrupled by 2015. Assuming tuition increases no faster than inflation, by that year U.S. colleges and universities will fall $65 billion short (in 1995 dollars) of the annual budget they need to educate the same proportion of the population they serve today. If, however, tuition increases at current rates—basically doubling by 2015—the impact on access will be devastating: effectively half of those who want to pursue higher education will be shut out.

To address a crisis of such proportions, we call for a two-pronged strategy: increased public investment in higher education and comprehensive reform of higher education institutions to lower costs and improve services. The second of these, institutional reform, is in fact a prerequisite for increased public funding. Unless the higher education sector changes the way it operates by undergoing the kind of restructuring and streamlining that successful businesses have implemented, it will be difficult to garner the increases in public funding needed to meet future demands.

More specifically, we make these recommendations:

- America's political leaders—the President, Congress, governors, mayors, and other state and local officials—should reallocate public resources to reflect the growing importance of education to the economic prosperity and social stability of the United States. Public funding of higher education has stagnated since 1976. It is time for the nation to reverse this policy.

- Institutions of higher education should make major structural changes in their governance system so that decision makers can assess the relative value of departments, programs, and systems in order to reallocate scarce resources. This will entail improving performance-based assessment, defining and measuring faculty productivity, and integrating accounting systems.

- As part of their overall restructuring, colleges and universities should pursue greater mission differentiation to streamline their services and better respond to the changing needs of their constituencies. Individual institutions and parts of statewide systems should focus on their points of comparative advantage rather than all striving to become full-service campuses. Community colleges, undergraduate universities, and research universities, for example, should embrace different missions, give priority to activities central to those missions, and reduce or eliminate more-marginal activities.

- Colleges and universities should develop sharing arrangements to improve productivity. A greater sharing of resources—requirements, classes, services, infrastructure, libraries—could lead to significant savings and even improve services.

- It is time to redefine the appropriate level of education for all American workers in the 21st century. All citizens planning to enter the workforce should be encouraged to pursue—as a minimum—some form of postsecondary education or training.

This reform agenda cannot be implemented by the higher education establishment alone. A sea change of this sort requires the active participation of leaders in government, business, and education, as well as the American public. With this report, we hope to convey the urgency of the situation. In our view, the enormous deficits facing the higher education sector in the near future are more critical than the much publicized crisis in the Social Security system. Indeed, unless America manages to open up the narrowing bottleneck of higher education, there will not be enough economic growth to support *any* version of the Social Security plans being discussed. In very real and practical terms, education is the key to the nation's future. Americans must ensure that it becomes a national priority. ♦

# The Threat from Within

Recent shifts in America's economy have made higher education more significant than ever. The industrial jobs that once formed the backbone of the economy are dwindling and will provide employment for only 10 percent of the workforce by the year 2000. The service-related jobs that are taking their place require a level of knowledge and skill that, for the most part, can be gained only through programs offered at colleges and universities. If workers in today's economy are cut off from higher education, they will be unable to attain the proficiency levels needed to master new technologies and enter new occupations.

This gradual shift in the educational requirements of today's workforce has put great pressures on the entire educational system. The nation must educate a larger and more diverse population to levels never before required. Those who are content with a high school diploma or with not completing high school are likely to face a bleak economic future. The growing disparity in the incomes of the rich and the poor is testimony to this fact. If current trends in wages and family income persist, the economic disparities that will exist in America by 2015 will pose a grave danger to society:

- A much larger proportion of the population will fall below the standard of living considered average today.
- The real hourly wages of the average male worker will decline by about 25 percent compared to what the average male earned in the 1970s. For those near the bottom of the wage distribution, hourly earnings will slip by about 44 percent.
- While family incomes in the highest earning bracket will increase by 50 percent, the earnings of the poorest families will decline by about 36 percent from the levels of comparable families in 1976, creating an unprecedented income gap between the nation's rich and poor.
- The proportion of immigrants in the population will increase to 12 percent of the labor force by 2015. Unless immigration policy changes, most of the new immigrants will come from Mexico and Central America, a group with historically low levels of education.
- College education will not be equally distributed among ethnic/racial groups, creating little chance for underrepresented groups to improve their standard of living. As a result, the educational and economic fault lines in the United States will be drawn increasingly in terms of ethnicity and race.

This portrait of the future is not a prediction but a simple extrapolation of the earning patterns, described more fully below, of the 20-year period from 1976 to 1995 (the most recent year for which data were available). We believe the growing gap between the rich and the poor is one of the greatest threats to America's social order. At the heart of this problem is the profound change that has taken place in the level of knowledge and skill required to be a productive worker in today's economy. Improving the education and training of all Americans is, in our view, the only way to combat this threat and reduce the growing divide.

## Trends in Wages and Family Income

As has been well documented in research, wage and family income disparities have been growing since 1976. Figure 1 shows the distribution of hourly wages among all male workers in the United States in real terms, adjusted for inflation and indexed to 1976. (In other words, 1976 is shown as a base, and wages estimated for subsequent years are shown as a percentage of what they were in 1976.) The figure shows only male wages, but disparities in female wages are growing at about the same rate. The top line shows changes in earning levels for workers at the 90th percentile of all male wage earners. It shows slow growth over the 20 years extrapolated out to the future.

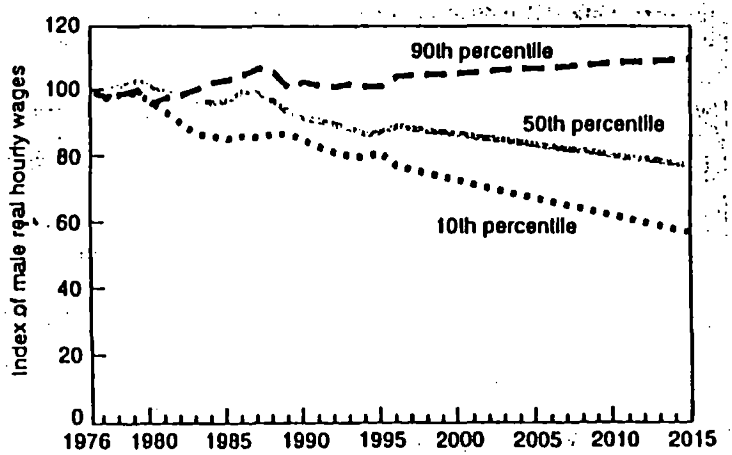



Figure 1—Long-Term Trends in Hourly Wages of Male Workers

The message here is that the highest paid workers will hold their own to 2015. Those in the 50th percentile—workers right in the middle of the distribution—have lost about 14 percent in real wages over the 20 years; by 2015, they will be earning about 25 percent less than they earned in 1976. But the most striking consequence of current trends shows up in the figures for workers in the bottom 10 percent. If current trends continue, these workers will be earning little more than half of what they earned in 1976.

The numbers for family income over the same period show even wider disparity. As Figure 2 shows, families at the top of the scale will be earning about 50 percent more in 2015 than they did in 1976. This is not because men's wages are going up, but because more women are working and families tend to be smaller than they used to be, creating more workers in the economy per family. Those in the middle of the income distribution scale will be a little better off, though not much. But for those in the bottom 10th percentile—consisting largely of single-parent families headed by women and families of low-educated immigrant populations—we see a 36 percent fall in income compared to what families in that income bracket earned in 1976. In that year, families at the 90th percentile enjoyed income levels nine times greater than those of families at the 10th percentile. By 1993, the disparity was twelvefold. At this rate, the ratio will exceed sixteen to one by 2015.

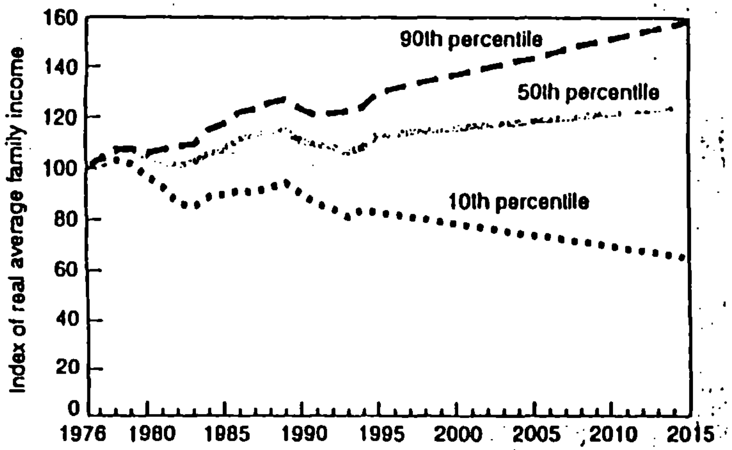



Figure 2—Long-Term Trends in Family Earnings

## Changes in The Immigrant Population

A doubling in the proportion of immigrants in the workforce since the 1970s (over 10 percent of the workforce is now foreign born) and the lower educational level of more-recent immigrants are additional factors in the growth of income disparity. Figure 3 shows the changing face of America's immigrant work-force. In 1970, only 6 percent of the immigrant workforce came from Mexico or Central America and 68 percent came from Europe. In 1990, 21 percent of the immigrant workforce came from Mexico or Central America and only 34 percent from Europe. Because the educational level of Mexican and Central American immigrants is lower than that of other immigrant groups, the earnings of more-recent immigrants have deteriorated relative both to native workers and to earlier immigrants and are likely to remain low throughout these immigrants' working lives. If these trends hold, a growing proportion of workers will have less than a high school diploma and will face declining earnings over their lifetimes.

## Education and Income: The Intimate Link

The single most important factor in determining level of income is level of education. Figure 4 shows the distribution of real hourly

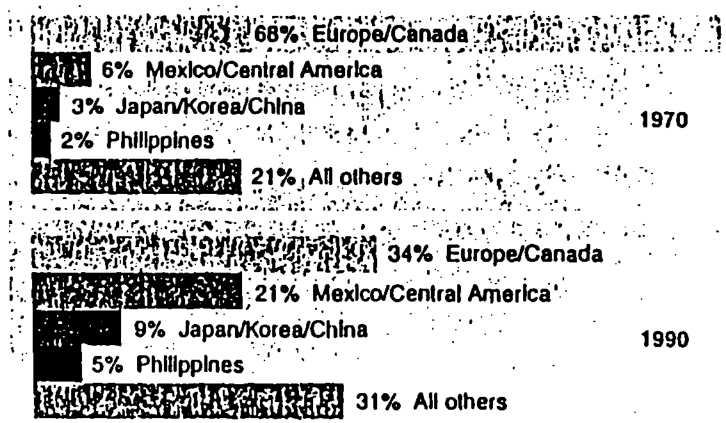



Figure 3—Changing Composition of America's Immigrant Population

wages of male workers by education level. Men with a college education have kept pace with inflation over the 20-year period, men with *some* college education have seen a decline in real income of 14 percent, and men with only a high school diploma have lost 18 percent. Meanwhile, real wages of high school dropouts have declined by 25 percent.

If these lines are drawn out another 20 years using the same rates, the result is devastating. By 2015, male workers with only a high school education will have lost 38 percent of what comparable male workers earned in 1976. And those without a high school diploma will have lost 52 percent in real earnings over the same period. If the U.S. economy continues to place a high value on a college-educated workforce, which we believe it will, then only college graduates will be able to hold their own economically out to 2015. Those who attend some college will not do badly, but those who stop pursuing an education before or after graduating from high school will lose ground over their working lives.

This economic polarization is particularly troublesome in that a growing proportion of the poor will be African American and Hispanic. Like non-Hispanic whites, African Americans and Hispanics suffer lifelong economic consequences if they do not pursue higher education. Because larger proportions of these two groups fail to go beyond high school, larger proportions of these groups are among the poor. Figure 5 shows an index that conveys the ratio of the number of students in higher education for various ethnic/racial groups to the total number of 18- to 29-year-olds in those groups. The figure plots changes in that index over the 20 years and extrapolates the rates out to 2015.

As of 1995, Asians and Pacific Islanders scored over 40 on this index, and non-Hispanic whites scored just over 30. In contrast, African Americans and Hispanics scored about 20 and 18, respectively. Although participation rates are increas-

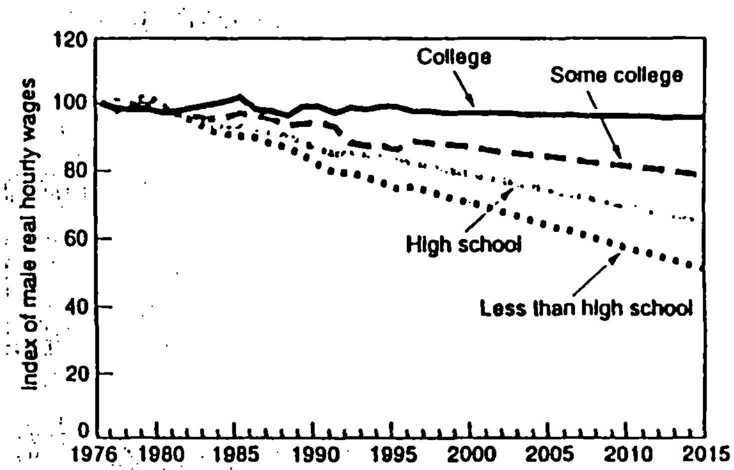



Figure 4—Distribution of Real Mean Hourly Wages for Male Workers by Education Level

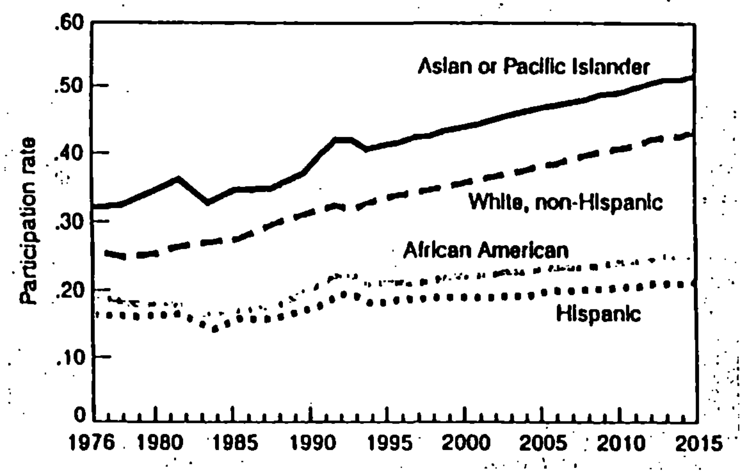



Figure 5—Rate of Participation of Different Ethnic/Racial Groups in Higher Education

ing for all groups, they are currently increasing more rapidly for whites and Asians than for African Americans and Hispanics. As a result, the gap could widen considerably by 2015. Only by increasing the proportion of African Americans and Hispanics going to college can the gap be stabilized or reduced.

It is in the interest of all Americans to promote higher levels of education and training for those who are rapidly losing earning power in American society. Low levels of education are powerful predictors of welfare dependency, unemployment, and incarceration, all of which are very costly. Moreover, by 2015 the number of workers for every retiree on Social Security will be at least one-fifth what it was 50 years ago. This means that a shrinking proportion of American workers will not only have to maintain U.S. economic competitiveness in the global marketplace, but will also have to support the economic base of the rest of the nation at the same time. It is more important than ever that this workforce be adequately educated and trained. It is therefore in the national interest that the widest possible access to higher education be maintained. ♦

Will America's higher education sector be equipped to meet the needs of future students? By the year 2015, the nation must be prepared to educate over 4 million more students than it educated in 1995—simply because of population growth. If the proportion of the population that wants to attend college also increases, as we think it should, then that number will be even higher. Will the revenue base of colleges and universities be sufficient to handle such an increase in the numbers of students?

Our analysis shows that if current funding trends continue, the higher education sector will face a calamitous shortage of resources. Unless public funding increases significantly and institutions undergo fundamental internal restructuring to improve their productivity, access to higher education will be dramatically *reduced* in the future.

## Growth in Demand

Enrollment in America's colleges and universities has grown rapidly since the 1930s. This growth was fueled, of course, by a growing U.S. population—but while the population has only doubled since 1930, enrollment in higher education has expanded tenfold. The additional growth reflects the phenomenal increase in the percentage of Americans pursuing education beyond high school.

U.S. population growth is expected to continue into the next century, as is the rate at which Americans go to college. As Figure 6 shows,[1] if these trends continue, the total number of students in colleges and universities will increase from the 1995 level of 10.3 million to about 13.2 million full-time equivalent (FTE) students by 2015.[2]

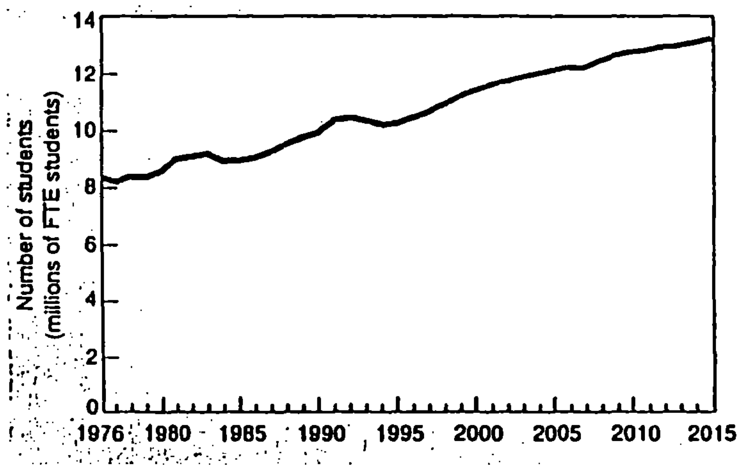



Figure 6—Past Enrollment and Projected Demand

[1] The National Center for Education Statistics has published projections to 2006. We computed the participation rates by age implicit in those projections and extrapolated the trends in those rates through 2015. We then multiplied estimated participation rates by the census projections of age distributions of the population to 2015.

[2] Since many students attend college on a part-time basis, placing smaller burdens on institutions, they are traditionally counted as full-time equivalent students. For example, a part-time student whose course load is 70 percent of a full-time course load is counted as 0.7 FTE. By this method, higher education will have to educate approximately 3 million more FTE students.

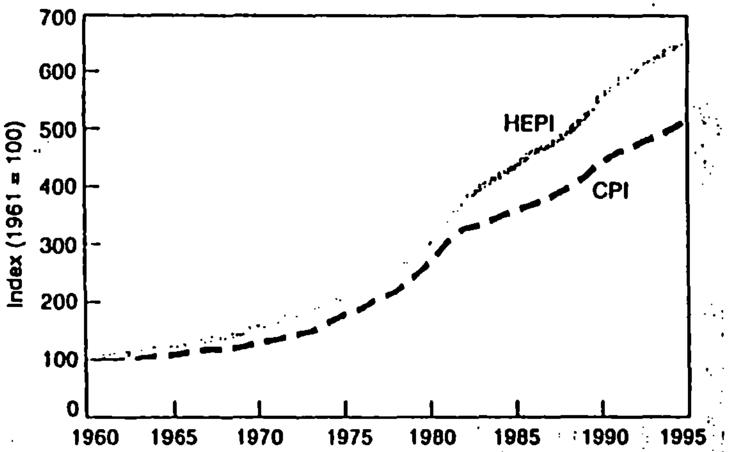



Figure 7—Growth of Costs to Higher Education Institutions

## Growth in Costs

The costs per student in higher education have also risen. In fact, they have grown consistently for at least 30 years, escalating sharply since the late 1970s. The Higher Education Price Index (HEPI), produced by Research Associates of Washington, reflects the real increases in the prices paid by higher education institutions for goods and services (faculty salaries, for example).[3] As Figure 7 shows, the HEPI rose more than sixfold between 1961 and 1995, much faster than inflation as measured by the Consumer Price Index (CPI). Between 1980 and 1995, the annual average rate of growth in the costs of providing higher education exceeded the CPI by a full percentage point. A sector whose costs grow faster than inflation for an extended period ultimately reaches the limits of available resources, as has been demonstrated in the health care industry.

## Decline in Public Funding

Given the increases in demand and costs, it is surprising that public funding has not shown similar increases. As Figure 8 shows, overall public appropriations to higher education—federal, state, and local support—grew slowly through the 1970s and early 1980s in real terms. In the mid-1980s, public support increased more substantially, but it then flattened out in the early 1990s.[4]

In effect, the United States has been underfunding higher education since the mid-1970s. Figure 9 shows the share of personal income allocated through government appropriations to higher education from 1960 to 1994. In the 1960s and early 1970s, Americans doubled

[3]The HEPI measures the average change in prices over time for a fixed basket of goods and services that higher education institutions buy to support current operations. These goods and services include salaries of faculty, administration, and other professional and nonprofessional personnel; contracted services such as communications and transportation; supplies and materials; equipment; library acquisitions; and utilities. See *Inflation Measures for Schools, Colleges, and Libraries*, Research Associates of Washington, Washington, D.C., 1995

[4]National Center for Education Statistics, *Digest of Educational Statistics*, U.S. Department of Education, Office of Educational Research and Improvement, Washington, D.C., various years.

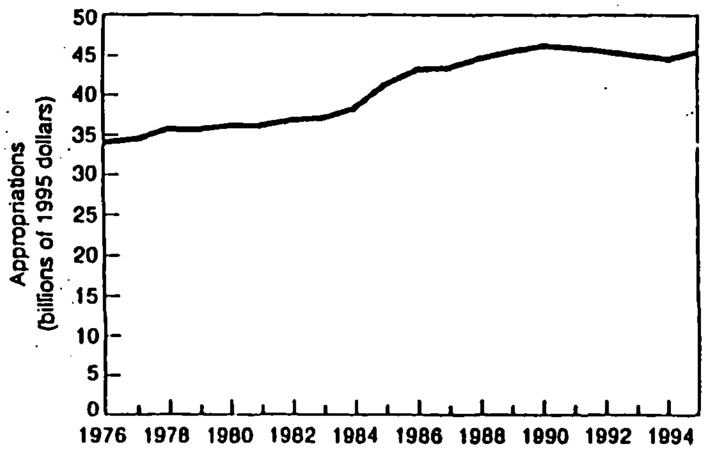



Figure 8—Government Appropriations to Higher Education over 20 Years

the share of their income that want to higher education—from \$7 to about \$14 per \$1,000 earned. Since 1976, however, that share has been steadily decreasing.

Tax revenues as a share of personal income actually increased slightly over the period shown in Figure 9. In fact, they have been increasing since 1976. What has changed is government spending priorities. At the federal level, the growth of entitlements—most notably, Social Security, Medicare, and Medicaid—has dominated federal spending, as Figure 10 illustrates. Mandatory spending on entitlement programs and interest on the national debt consumed about 38 percent of the federal budget in 1965. In 1995, they accounted for about 67 percent. The entitlement programs focus largely on older Americans, which means that as the baby boomers age, the population drawing on these programs will increase. The Congressional Budget Office estimates that in 2005—less than a decade from now—these programs will consume almost 75 percent of federal revenues. This vast intergenerational transfer of wealth is squeezing higher education out of the federal budget.



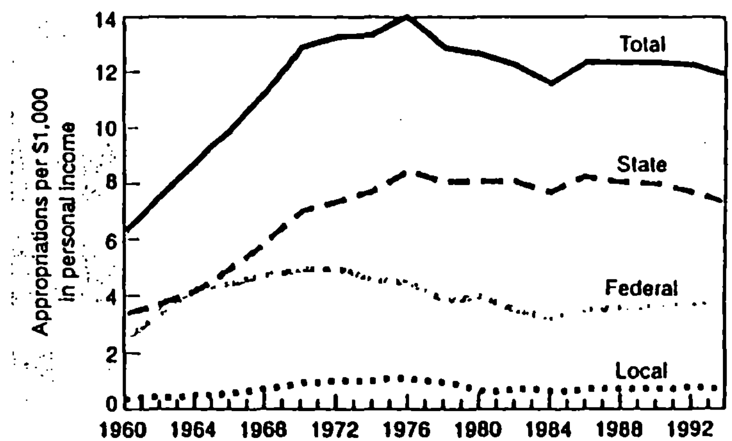



Figure 9—Share of Personal Income Allocated to Higher Education Since 1960

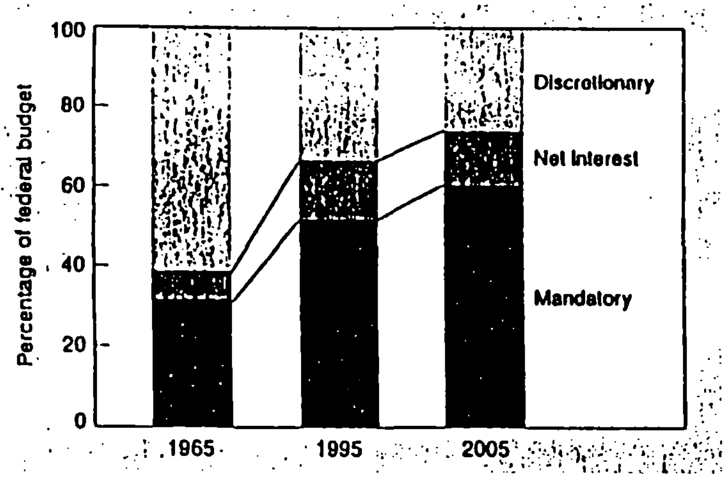



Figure 10—Erosion of Federal Budgetary Discretion by Entitlements

The situation at the state and local levels is very similar. Like the federal government, state and local governments are increasingly allotting greater shares of their budgets to health and welfare programs. And the plight of higher education in state and local budget battles is exacerbated by rapid increases in spending on corrections, mainly prisons. Figure 11 shows the distribution of state government spending on higher education, health and welfare, and corrections from 1976 to 1995 and extrapolates the trends through 2015 to indicate their consequences.

Clearly, government support for higher education has declined both economically and politically over a long period, and it will be difficult to bring it back to previous levels. Now that there are stringent fiscal limits on public resources, the government is beginning to ask the same kinds of questions of colleges and universities that it has asked of the health care industry—questions about cost, productivity, efficiency, and effectiveness. Until institutions of higher education can provide good answers to such questions, it will be difficult to increase public support and to regain the priority formerly given to higher education in federal, state, and local budgets.

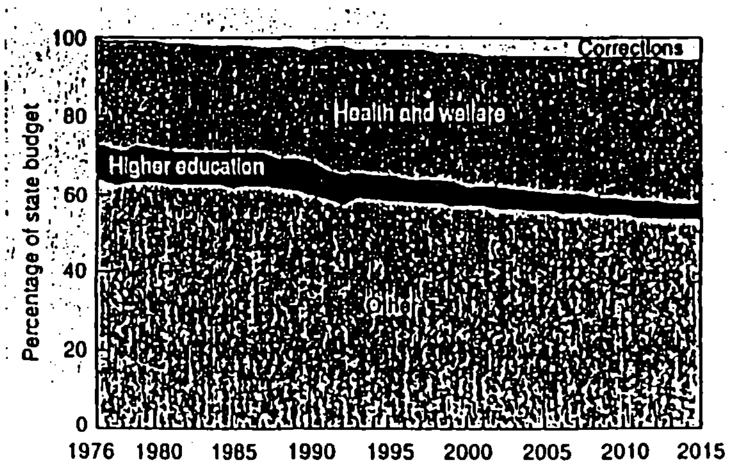



Figure 11—Distribution of State Expenditures

## Tuition Growth and Its Effect on Access

As their government support has decreased over the years, all institutions of higher education have had to charge students higher tuition and fees. In the mid-1970s, as shown in Figure 12, average annual increases in tuition revenues for the entire higher education sector were fairly moderate—slightly above inflation. Tuition began to grow much faster than the rate of inflation in the early 1980s. By the mid-1980s, tuition was climbing at rates well above the rate of inflation: in real (1995) dollars, tuition revenues in higher education increased by $5 billion between 1970 and 1980, grew by almost $20 billion between 1980 and 1990, and then increased by another $10 billion in the first four years of the 1990s.[5]

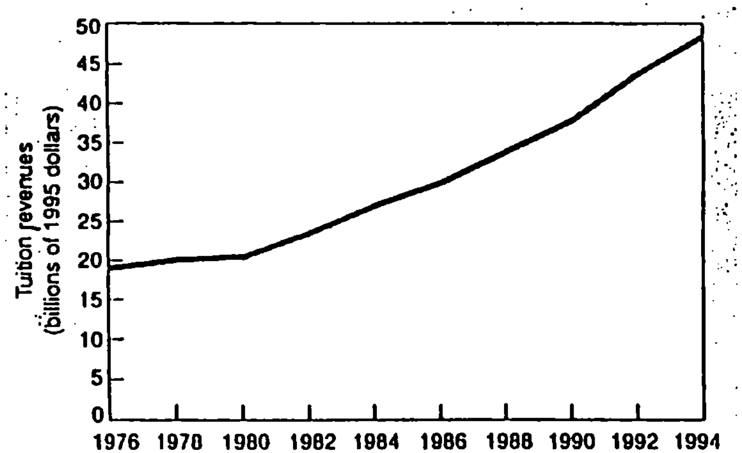



Figure 12—Growth of Tuition

If appropriate steps are not taken, higher education could become so expensive that millions of students will be denied access. Average real tuition, adjusted for inflation, approximately doubled in the 20 years from 1976 to 1995. Figure 13 shows that if it doubles again in the next 20-year period (1996 to 2015), about 6.7 million students will be priced out of the system. In other words, about one out of every two people we would expect to seek a college education will not be able to pay for it. Even if tuition increases by only 25 percent over the 20 years, one out of five students will be excluded.

The consequences of such exclusion will not be confined to the affected student population. Those who are denied access to college might not be able to afford to send their children to college 20 years later. The social and economic ills generated by inadequate levels of education will reverberate through successive generations.

Increased private sector support of higher education by alumni,

[5]Figure 12 shows gross tuition revenue and thus does not speak, for example, to the increasing efforts of private institutions to lower the net tuition price to many students. Few students actually pay the full price of tuition. Indeed, one of the reasons for the increasing cost of tuition is that universities and colleges are attempting to maintain access for low-income students by substituting aid packages for lost state support.

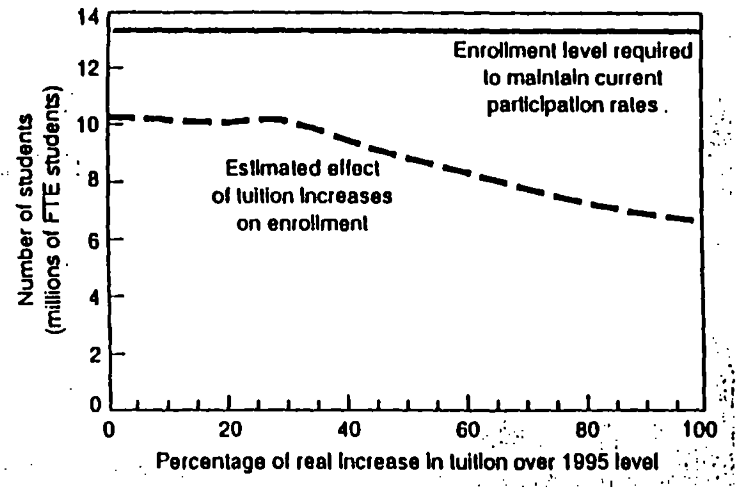



Figure 13—Effect of Increasing Tuition on Enrollment

other individuals, corporations, and foundations can help and has done so already: private grants, gifts, and endowment income have roughly doubled over the past two decades. However, in 1995, they provided only 8 percent of higher education's revenues—almost the same percentage as they provided in 1975. This private sector and endowment income represents a relatively small proportion of the total higher education budget and is more concentrated in the private, relatively elite, and wealthy institutions that serve a smaller share of the total student population.[6]

## The Bottom Line

Given the funding projections, it will be extremely difficult even to maintain today's enrollment rates, let alone provide for those of the future. Figure 14 illustrates the dimensions of the problem. The combination of government support to institutions and government support to students (i.e., the cost of subsidizing loans and giving grants) has failed to grow at anywhere near the rate at which costs have increased. Using 1976 as a point of comparison—the year that public funding for higher education as a share of personal income was at its highest—the figure shows the growing gap between the funding colleges and universities will need to operate, or their "resource requirements,"[7] and the funding that will be available if current trends in enrollment

[6]For trends in private giving, see ***Voluntary Support of Education***, Council for Aid to Education, New York, annual. (See also www.cae.org.)

[7]Resource requirements do not include tuition revenue. They are the funds needed from federal and state support and voluntary giving by corporations and foundations, minus external funds for research. Figure 14 plots the degree of change in resource requirements since 1976, assuming that tuition increases are held to the rate of inflation. The value of these requirements in 1991 is shown as 2.0, suggesting that resource requirements doubled during that period.

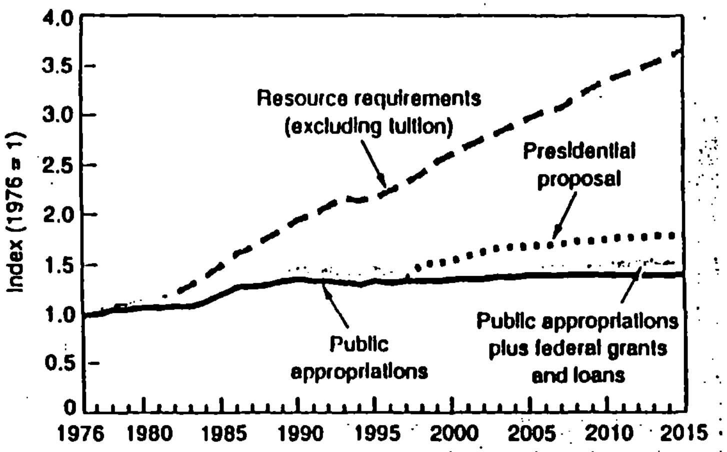



Figure 14—Real Amount Required Beyond 1976 Tuition to Pay for Higher Education

and costs continue. By 2015, that gap will have nearly quadrupled. The "presidential proposal" line in the figure shows an initial estimate of how the plan proposed by President Clinton in his State of the Union message might affect these calculations. While his proposal is clearly a step in the right direction, most of its increases are in the form of tax credits, which will benefit middle- rather than lower-income families.

Translated into 1995 dollars, the resource requirements of the higher education sector (assuming it will serve the same proportion of students it serves today) will be approximately $131 billion annually. Again, this amount represents fiscal requirements over and above tuition, with tuition being assumed to increase no faster than the rate of inflation. If the trends in public funding of higher education over the 20-year period from 1976 to 1995 do not change, total appropriations from federal, state, and local government will be $47 billion by the year 2015. President Clinton's plan, if approved, would increase that amount to $57 billion; loans and grants would account for another $8 billion. That gives a total of $65 billion—half of what will be needed to serve the same proportion of the population now attending higher education institutions. ◆

# Institutional Roadblocks

Given the magnitude of the deficit facing American colleges and universities, it is surprising that these institutions have not taken more serious steps to increase productivity without sacrificing quality.[8] Many have adopted cost-saving measures, such as forced retirements and hiring freezes, but most of these actions have been partial and ad hoc.

The main reason why institutions have not taken more effective action is their outmoded governance structure—i.e., the decision-making units, policies, and practices that control resource allocation have remained largely unchanged since the structure's establishment in the 19th century. Designed for an era of growth, the current structure is cumbersome and even dysfunctional in an environment of scarce resources. In fact, impediments to change are built into the management assumptions and practices of colleges and universities. In that sense, higher education is a prime example of a public-sector institution struggling to deal with a changed environment.

The academic department, for example, which is the heart of the current governance structure, is based on the assumption that faculty members should govern themselves, making all decisions about what should be taught, who should be hired, and so forth. The continued sway of the department might be justified if departments were truly autonomous. In reality, however, they function as parts of a greater whole—one on which they are financially dependent.

Besides being decentralized and departmentalized, institutions are a maze of hierarchical structures operating independently of one another. The dean of a college of arts and sciences allocates resources among several dozen social science, humanities, life science, and physical science departments. The dean of engineering does the same for a variety of engineering programs. And the vice president for operations manages facilities, maintenance, parking, and campus security. Administrators report up or down their narrow chains of command, largely ignorant of what those in other parts of the institution are doing.

What is needed now is a systemwide process for reallocating resources among departments and other parts of the institution. Just as successful companies have learned to focus on their core competencies—the products and services they supply at a better quality and lower price than their competitors—higher education institutions and systems need to reexamine their missions and streamline their services to serve those missions. This task requires that operations be seen from a broad perspective, one that will lead to such questions as: Which of our centers, departments, colleges, or services enjoy comparative advantage over those of other education or training institutions? Would another classics professor contribute to the

[8] By increases in productivity we mean a measurable reduction in costs achieved while maintaining or improving effectiveness without sacrificing quality.

educational mission more than another mathematics professor? More than acquiring additional equipment for the geophysics laboratory? More than expanding the student counseling program? More than repairing classroom and dormitory roofs?[9]

The current governance structure actually prevents institutions and institutional systems from asking such questions. Moreover, finding answers for these types of questions will require not only a new decision-making process, but a concerted effort to generate data on the costs and benefits of providing different services. With the structure as it is now, decision makers have not had to choose among competing functions, so comprehensive information systems have not evolved to support such decisions. Higher education officials simply do not have the information they need to compare missions and functions and understand the trade-offs among the potential allocations being considered.

Clearly, these roadblocks need to be taken into account and surmounted before colleges and universities can streamline. One of our strongest recommendations is that institutional restructuring, including mission differentiation, be made a national priority.[10] Like the health care industry, the higher education sector must systematically address issues of cost, productivity, efficiency, and effectiveness as a prerequisite for increases in public sector investments. Indeed, if the higher education sector is to get a sympathetic ear from legislators, it needs strong advocacy from the business community, an ally it is unlikely to win unless it has put itself through the same sort of streamlining and reengineering that the business community has implemented to reduce costs and improve service.

We believe that colleges and universities must make major organizational changes. To do so, their governance systems must be changed so that they can reallocate scarce resources and permit fundamental reform in the way they do business. Moreover, we urge academic leaders to actively involve the business community in their restructuring. Business leaders have extensive experience in such matters, as well as a direct interest in the outcome of education reform. ♦



[9]Unlike large research universities, small liberal arts colleges do not have multiple layers of management. While this means that their administrative costs are lower, it also means that there is less room to maneuver internally when restructuring. As a result, other measures—such as sharing among institutions and creative use of educational technology—become even more important.

[10]It is important to note that some colleges and universities have taken important steps down the restructuring path, beginning with reforms of administrative functions. The Pew Higher Education Roundtable, for example, has performed a useful role in bringing together leaders of private universities and colleges to discuss restructuring ideas. (See *Policy Perspectives*, a continuing series edited by Robert Zemsky and William Massy, Pew Higher Education Research Program.) Important experiments are being conducted by higher education leaders in California and Florida, to name just two states; and the Foundation for Independent Higher Education has launched a pilot project to assist independent colleges that want to undertake cost containment efforts. These are isolated efforts, however—not the restructuring of the entire higher education sector that we believe is an urgent necessity.

# Recommendations

The problems delineated in this report must be addressed. We challenge America to adopt—and make into goals—our recommendations for putting U.S. colleges and universities on a path to financial health and keeping the door open to all Americans willing and able to reap the benefits of higher education. Meeting this challenge will require a combination of increased government investment and far-reaching institutional reforms that will provide high-quality education at lower cost. Increased public funding could be tied to institutional reform to create incentives to innovate.



## Recommendation 1:

***America's political leaders—the President, Congress, governors, mayors, and other state and local officials—should reallocate public resources to reflect the growing importance of education to the economic prosperity and social stability of the United States.***

If the American people had known how the educational requirements of the workforce were going to grow in the 20 years from 1976 to 1995, it is doubtful that they would have allowed public funding to stagnate as it has. We believe Americans should no longer tolerate inaction: The nation should not be allowed to continue to drift toward educational mediocrity and the ominous levels of economic inequality that are arising. We are confident that once the American public and their leaders are aware of the dangers of the current course, they will act to increase public support for higher education—even if that means reducing the level of support for other public sectors.

For example, we believe it is a reasonable goal for the nation's government—the federal, state, and local levels—to attempt to reduce the deficit facing the higher education sector by half. At present, the federal government provides slightly less than a third of government appropriations to higher education; state and local governments provide the rest. The federal government might commit to providing one-third of the public sector share of the needed increase, with state and local governments providing the remaining two-thirds. We realize that this is an audacious goal given the current stresses on federal, state, and local budgets, but to do less is to put the nation at grave risk.

Meeting this goal would provide 50 percent of the future deficit. The rest of the shortfall would be made up by productivity gains achieved through the structural reforms described in the following three recommendations, and by modest increases in tuition and fees.

## Recommendation 2:

***Institutions of higher education should make major structural changes in their governance system so that decision makers can assess the relative value of departments, programs, and systems in order to reallocate scarce resources.***

In our view, the most pressing reform needed today in the higher education sector is the redesign of the governance structure of institutions so that decision makers can think and act strategically. In particular, colleges and universities must

1. Improve performance-based assessment. Academic institutions must develop a process of assessing the costs and benefits of providing all services. The goal of this effort is to provide an integrated information system about all costs, including capital costs and the value-added to students of their educational experience. We believe that unless higher education leaders move toward systematic performance-based assessment, the higher education sector will not be able to compete effectively with other demands on public funding in the future.

2. Define and measure faculty productivity. Productivity in higher education is, of course, difficult to define, but analysis needs to be conducted to identify productivity measures for education in general and for faculty in particular. The average teaching load in major research universities, for example, has been reduced from about eight courses a year to four or five. Institutions must calculate the effect of such changes on costs and benefits. No fundamental restructuring can occur until the current incentive system governing faculty behavior is changed.

3. Improve internal accountability in financial management. Budgeting and fund accounting systems, for example, are now completely separate. They should be reconciled so that higher education leaders have access to timely "profit and loss" information in areas for which they provide oversight.

## Recommendation 3:

*As part of their overall restructuring, colleges and universities should pursue greater mission differentiation to streamline their services and better respond to the changing needs of their constituencies.*

Greater mission differentiation among postsecondary education institutions and systems is the only way to ensure effective and efficient provision of all teaching and research functions over the next several decades. The current mission "creep"—e.g., community colleges attempting to become four-year degree-granting institutions, state universities becoming research centers, and research universities offering remedial instruction—violates the mission differentiation principle.

If higher education institutions and systems focus on their points of comparative advantage within the overall ecology of higher education, both productivity and improved quality will result. Specifically, the community colleges, undergraduate universities, and research universities should embrace different missions, give priority to activities central to those missions, and reduce or eliminate more-marginal activities.[11] We recommend the following specifics:

1. Community colleges should take a leadership role in workforce preparation. They need to expend more effort on education and training targeted to multiple constituencies, particularly workforce preparation, adult education, remedial education, and English as a Second Language. As our analysis suggests, one of the nation's most pressing social needs is improving the education level of all socioeconomic groups to avoid creating a larger and more permanent underclass. Institutions of higher education need to become more active partners in this enterprise. Because employers, high schools, and local governments are important stakeholders, community colleges should develop long-term strategic partnerships with these entities. We recommend that Congress and the states continue to provide incentives for employers, high schools, local authorities, and colleges to work together in designing and funding school-to-work programs that reach out to the community at large and to underrepresented groups in particular.

   As part of this initiative, colleges need to identify, strengthen, and give visibility to programs already focused on this outcome. These should be continued, improved, and built upon. To encourage commitment to such socially responsive initiatives, colleges should evaluate and reward faculty work in ways that provide the right incentives.

2. State undergraduate institutions should take the lead in teacher training and areas related to regional economic development. Eligibility for college will not improve among low-income socioeconomic groups unless K–12 school reform succeeds, and training and retraining of K–12 teachers is a prerequisite to that success. Recent studies show that teacher training in America is in disarray. We believe the most effective response to this national problem is for state undergraduate institutions to assume central leadership for teacher training and to make teacher training one of their highest priorities. In addition, faculty of state undergraduate institutions should be encouraged to assume a stronger leadership role in research and technical assistance for regional economic development. This applied research capability will enable these institutions to relate to the needs of the regions in which they exist.[12] The independent college sector should focus on its comparative advantage: the liberal arts undergraduate mission.



[11] *A Framework for Linking Resources to Mission in Higher Education*, provided in this report's volume of supporting analysis, presents a set of analytic tools useful for any institution or system of higher education contemplating changes in its mission.

[12] This is especially pertinent in fast-growing states having large urban populations and economically depressed areas.

3. **The major research universities should focus on the promotion of research and graduate education.**

To help maintain the critical funding needed to support research, a National Research University Act should be passed that allows federal investment in research to be concentrated in the nation's top-ranked research universities. Unlike its international competitors such as Japan and Germany, which direct their scarce federal resources to a few elite research groups, the United States spreads its dwindling federal dollars among more than 800 universities and laboratories. From 1976 to 1995, research funding grew only slightly, but the number of institutions receiving this funding increased by several hundred. Even more important, most of the institutions now receiving federal support for research are not even Carnegie-rated research and doctorate-granting universities.[13] This poorly targeted funding may not have mattered as much in the golden years of U.S. science and technology development, but now, with the decline in federal support of research, it may be a serious threat to the long-term health of the nation's economy.[14]

## Recommendation 4:

***Colleges and universities should develop sharing arrangements to improve productivity.***

As increased mission differentiation is achieved, a greater sharing of resources will lead to improved productivity of the entire higher education system:

1. **Alignment.** Seamless alignment of undergraduate requirements, transfer requirements, and joint teaching and degree-producing arrangements between community colleges, state undergraduate universities, and public research universities is now technically feasible and should be achieved over the next decade. Given the benefits of the new educational technologies afforded by the Internet, it is time for intersegmental alignment of undergraduate instruction to be encouraged by policymakers inside and outside higher education. Achievement of this goal alone would substantially increase undergraduate participation rates.

[13] The top 30 science and engineering departments garner 70 percent of federal research support while the other 30 percent is shared among several hundred other such departments.

[14] We leave open to public debate the most appropriate mechanism for implementing this reform. One option would be for the National Science Foundation to request universities to provide their qualifications in each research area. The Foundation could then identify the most qualified in each area and guarantee them a minimum level of support. Another option would be for the federal government to provide funding to graduate students for vouchers that could be used at the institution of their choice. The resulting competition would effectively decrease the fragmentation of funding to research universities. Whatever the mechanism, we believe there is great value in concentrating scarce dollars in the most worthy institutions. This does not mean, however, that elite research universities need not improve their efforts to diversify the ethnic makeup of their faculties. The failure to tap potential top-level scientific talent from all segments of society remains a significant barrier to full realization of America's human capital.

2. **Classes.** Every college and university teaches microeconomics at the freshman level; virtually every research university offers several introductory statistics courses. Departments and universities should collaborate to pool introductory courses and instructors as a way to save resources and provide the best instruction available in the subject. Use of the Internet may facilitate this task.

3. **Services.** Joint outsourcing of functions ranging from physical plant maintenance, electric power, health care, and police protection to joint purchasing of instructional and research equipment and supplies should be encouraged.

4. **Infrastructure.** Free-standing, separate physical plants—and, if they are public institutions, the system administrations that govern them—are currently an unquestioned requirement. In the coming cyberspace age, physical space will assume less importance. Combining all or parts of physical plants of, say, state undergraduate universities and community colleges that serve the same geographical area could save considerable resources.

5. **Libraries.** Substantial savings and improved library services can be obtained by focusing on the software needed to place library resources on the Internet rather than continuing to support individual research library collections.

## Recommendation 5:

***It is time to redefine the appropriate level of education for all American workers in the 21st century. All citizens planning to enter the workforce should be encouraged to pursue—as a minimum—some form of postsecondary education or training.***

Almost a century ago, Americans established a high school education as the basic educational requirement for all citizens. At that time, the telegraph was the height of communications technology and the telephone was on the horizon but far from an everyday instrument. Engineers and scientists looked to their slide rule as the best instrument for advanced calculations. Today, computers, the Internet, and a host of advanced technologies are everyday work tools. Clearly, it is time to recognize that the required educational level of a century ago is no longer adequate for preparing the modern workforce.

Instead of retaining the traditional sharp distinction between the bachelor's degree and all other nondegree categories, we find it preferable to think in terms of a continuum of learning activities appropriate for attaining specific goals. In the future, the focus should be on the attainment of more specific, measurable knowledge sets, rather than on simple attainment of a bachelor's degree. It is time to encourage the rich range of subbaccalaureate opportunities that can provide millions of citizens with the tools needed to survive in the emerging high-skill economy. ♦

# Supporting Documents


Benjamin, Roger, and Stephen J. Carroll, *A Framework for Linking Resources to Mission in Higher Education*, DRU-1623-IET, Santa Monica, Calif.: RAND, January, 1997.

Benjamin, Roger, and Stephen J. Carroll, "Impediments and Imperatives in Restructuring Higher Education," *Education Administration Quarterly*, Vol. XXXII, Supplemental, December 1996, pp. 705–719.

Carroll, Stephen, and Eugene Bryton, *Higher Education's Fiscal Future*, DRU-1601-IET, Santa Monica, Calif.: RAND, February 1997.

Elms, Debbie, *Preliminary List: Higher Education Indicators—Resources Available*, DRU-1597-IET, Santa Monica, Calif.: RAND, February 1997.

Gates, Susan, and Ann Stone, *Understanding Productivity in Higher Education*, DRU-1596-IET, Santa Monica, Calif.: RAND, February 1997.

Guess, Gretchen, and Stephen Carroll, *Patterns in Federal Support for R&D: 1973–1994*. DRU-1598-IET, Santa Monica, Calif.: RAND, February 1997.

McArthur, David, and Matthew Lewis, *Untangling the Web: Applications of the Internet and Other Information Technologies to Higher Education*, DRU-1401-IET, Santa Monica, Calif.: RAND, January 1997.

Way-Smith, Susan, *Information and Resource Systems for Higher Education: A Briefing*, DRU-1599-IET, Santa Monica, Calif.: RAND, February 1997.