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ABSTRACT

This analysis used national data to evaluate changes in state higher education appropriations, state revenues, and regional differences in support for higher education from 1980 to 1992. Data from the United States Bureau of the Census and Illinois State University's Center for Education revealed that between 1980 and 1990 the nation's Gross Domestic Product (GDP) grew 105 percent but only 9 percent between 1990 and 1992. A major reason for this difference was the recessionary period from the middle of 1990 through the first quarter of 1991. Overall, during the 1980s, state support of higher education increased at about the same rate as the national economy but by slightly less than the growth of the states' own revenues. However, when data are converted to constant 1987 dollars the dramatic growth of the 1980s disappears: the GDP is seen to have increased by 30 percent; federal revenues by 18 percent; federal appropriations for higher education were 22 percent lower than in 1980; and total state appropriations for higher education were 4 percent lower in 1992 than in 1990. Also, the percentage of state general revenues given to higher education declined from 11.3 percent in 1980 to 9.2 percent in 1992. In constant dollars the appropriations per full-time equivalent student in 1992 were $3,200, 2 percent higher than the 1980 average of $3,150. Increased competition with other claimants for public dollars is seen as an important factor in the overall decrease in higher education's share of state funding. Five resource organizations are identified. Contains 10 references. (JB)

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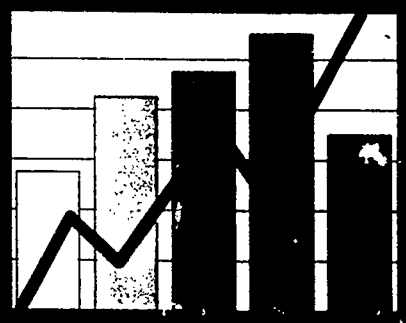

Research Briefs

State Revenues and Higher Education Appropriations, 1980–1992

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HIGHLIGHTS

- State revenues in both current and constant dollars have increased for each biennium since 1980, even during the 1990 economic downturn.
- State appropriations for higher education operations in both current and constant 1987 dollars increased for each biennium from 1980 to 1990. In 1992, appropriations were greater than in 1990 in current dollars, but not in constant dollars.
- During the 1980s, the *growth rate* of state appropriations for higher education was slightly less than the growth rate of state revenues.
- Higher education appropriations as a *percentage of state revenues* have decreased in the past 12 years. In 1980, appropriations represented 11.3 percent of revenues; in 1992, 9.2 percent.
- The Southwest maintained a high percentage of state revenues going to higher education throughout the 12-year period.
- All eight geographic regions of the country appropriated a smaller share of their revenues to higher education operations in 1992 than they had 12 years earlier.

State Revenues and Higher Education Appropriations, 1980–1992

by CHARLES J. ANDERSEN

In 1980, states appropriated $19 billion for the operating expenses of higher education. A dozen years later, state appropriations had more than doubled, reaching $40 billion. During the same period, the states' total revenues increased even more rapidly.

This brief uses data from the U.S. Bureau of the Census and Illinois State University's Center for Higher Education to display these changes on a biennial basis. Tables and charts show these data converted to constant 1987 dollars using the Gross Domestic Product implicit deflator. (See sidebar on page 2.) Such adjustments result in some apparent changes to trends, from upward to downward.

The brief also provides regional data showing that states' revenues and commitment to public higher education vary regionally and over time.

The Economy and Government Finances: National Data in Current Dollars

Higher education each year spends billions of dollars, many from the public purse. That purse, in turn, relies largely upon the condition of the nation's economy. The following figures and text indicate some of the changes in the economy and public revenues as reported biennially in the dozen years between 1980 and 1992. The brief also relates these changes to the states' support of higher education operations.

The Gross Domestic Product

In the 10 years 1980 to 1990, the nation's economy, as measured by the Gross Domestic Product (GDP), grew by 105 percent; that is, it more than doubled. The average biennial increase was 15 percent. However, from 1990 to 1992, the GDP grew by only 9 percent. A major reason for this difference was the recessionary period from the middle of 1990 through the first quarter of 1991.

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CONSTANT DOLLARS

The deflator used in this report to convert current dollars into constant dollars is the implicit deflator for the Gross Domestic Product (GDP). This deflator is designed to be somewhat more reflective of the entire economy than the more familiar and commonly used Current Price Index for urban consumers (CPI), which is considered to represent the "market basket" of goods bought by a typical city dweller. From 1980 to 1993, the GDP implicit deflator increased by 73 percent, while the CPI increased by 75 percent.

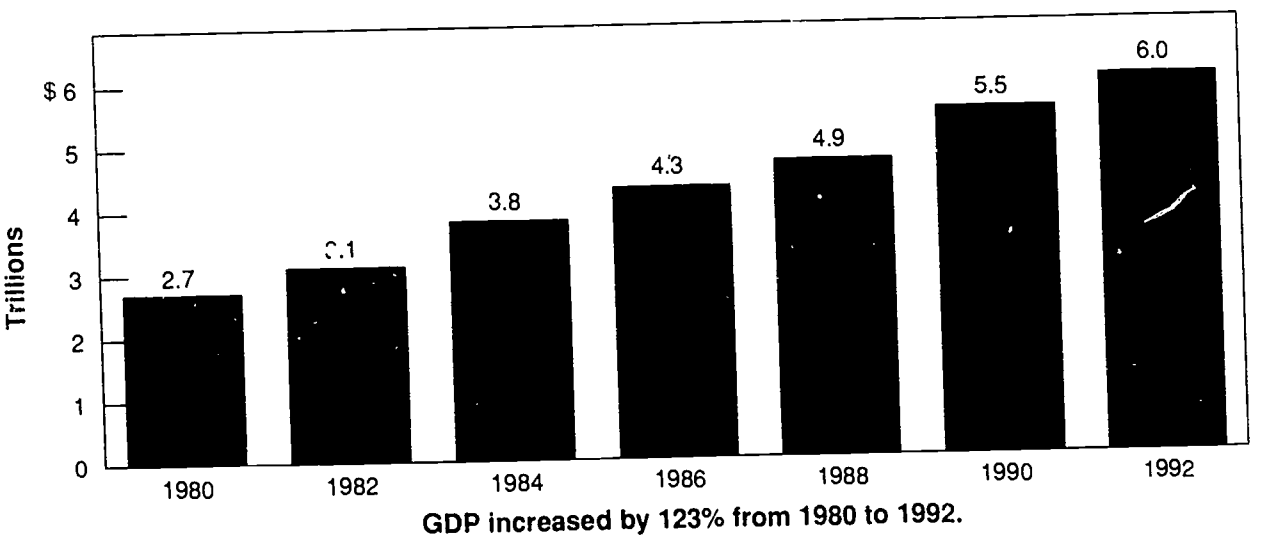
The base year for the calculation of constant dollars in this brief is 1987. That year was selected because it is the base year used in the *Economic Report of the President*, *Statistical Abstract*, and *Economic Indicators*, and facilitates any reference the reader may want to make to these sources.

Tables and charts in this brief show both current and constant 1987 dollars. Current dollars are the figures that most often appear in news reports and annual reports, whereas constant dollar figures are needed to show trends over time.

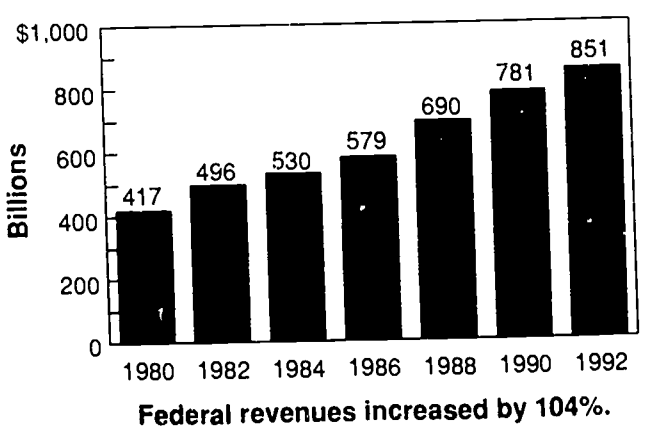
Another index that is sometimes used in the analysis of higher education financial data is the Higher Education Price Index (HEPI). It has not been used in this brief because it is a specialized index based on the "market basket" of goods and services purchased by colleges and universities. It is more appropriate for an analysis of institutional expenditures than for this review of the general economy and state revenues and appropriations.

Figure 1

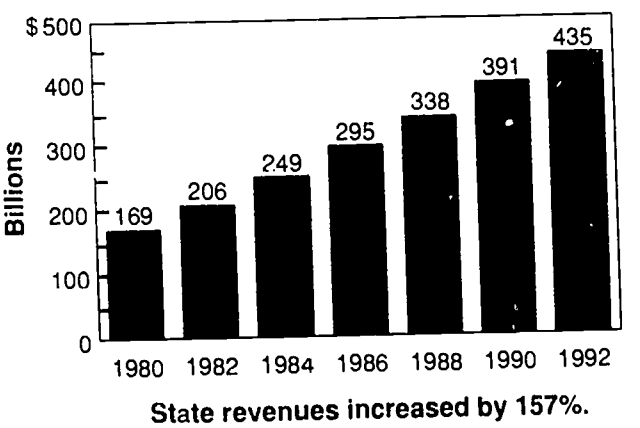
GDP and Federal and State Revenues, 1980–92 (in current dollars)



GDP increased by 123% from 1980 to 1992.



Federal revenues increased by 104%.



State revenues increased by 157%.

Federal and State Revenues

Federal revenues[1] grew by 87 percent from 1980 to 1990. This equates to an average biennial increase of 13 percent. From 1990 to 1992, however, the increase was 9 percent (Figure 1).

From 1980 to 1990, state revenues[2] more than doubled, increasing by 131 percent. They showed the same general pattern as that of the GDP and federal revenues; the robust growth of the 1980s was followed by more modest growth in the first two years of the 1990s. The average biennial increase of state revenues in the 1980s was 18 percent, but from 1990 to 1992, it slowed to 11 percent.

Figure 1 shows that despite the 1990 recession, the three measures reported here showed biennial current dollar increases into the 1990s.

Federal and State Appropriations for Higher Education

Federal support for higher education (excluding research funding) increased by 23 percent from 1980 to 1990. This translates to an average biennial current dollar percentage increase of 4 percent. From 1990 to 1992, the growth rate was somewhat higher, at 5 percent (Figure 2).

State appropriations for higher education operations doubled in the 10 years 1980 to 1990, with an increase of 105 percent. That figure translates to an average biennial current dollar increase of 15 percent. In contrast, the growth from 1990 to 1992 was only 3 percent.

Thus, during the period of economic growth in the 1980s, state support of higher education increased at about the same rate as the national economy, but by slightly less than the growth of the states' own revenues. When the economy faltered in 1990 — technically, the recession lasted less than a year, from the middle of 1990 through the first quarter of 1991 — state revenue growth slowed by about one-third. Growth in appropriations for higher education operations slowed even more sharply.

This pattern contrasts with that of federal appropriations noted above, which showed a slightly higher growth rate from 1990 to 1992 than during the previous decade.

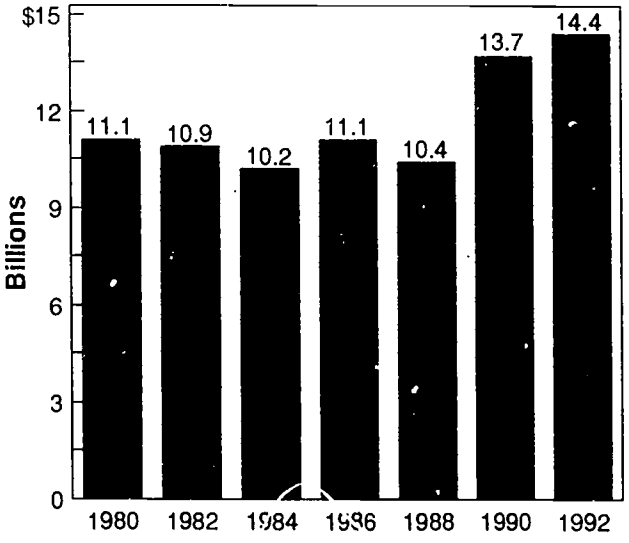
The Economy and Government Finances: National Data in Constant (1987) Dollars

When the above data are converted to constant 1987 dollars, the seemingly dramatic growth of the 1980s disappears. Whereas the GDP and revenues of federal and state governments showed growth into the 1990s, there certainly was no doubling of resources (Figure 3).

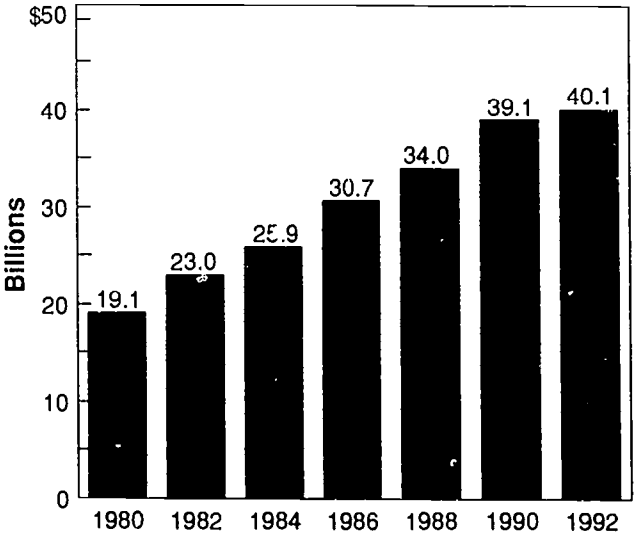
The Gross Domestic Product (GDP) increased by 30 percent from 1980 to 1990 in terms of constant 1987 dollars. The average increase per biennium in the 1980s was 5 percent, while the increase for the first two years of the 1990s was just 2 percent.

Figure 2

Federal and State Appropriations for Higher Education, 1980–92 (in current dollars)



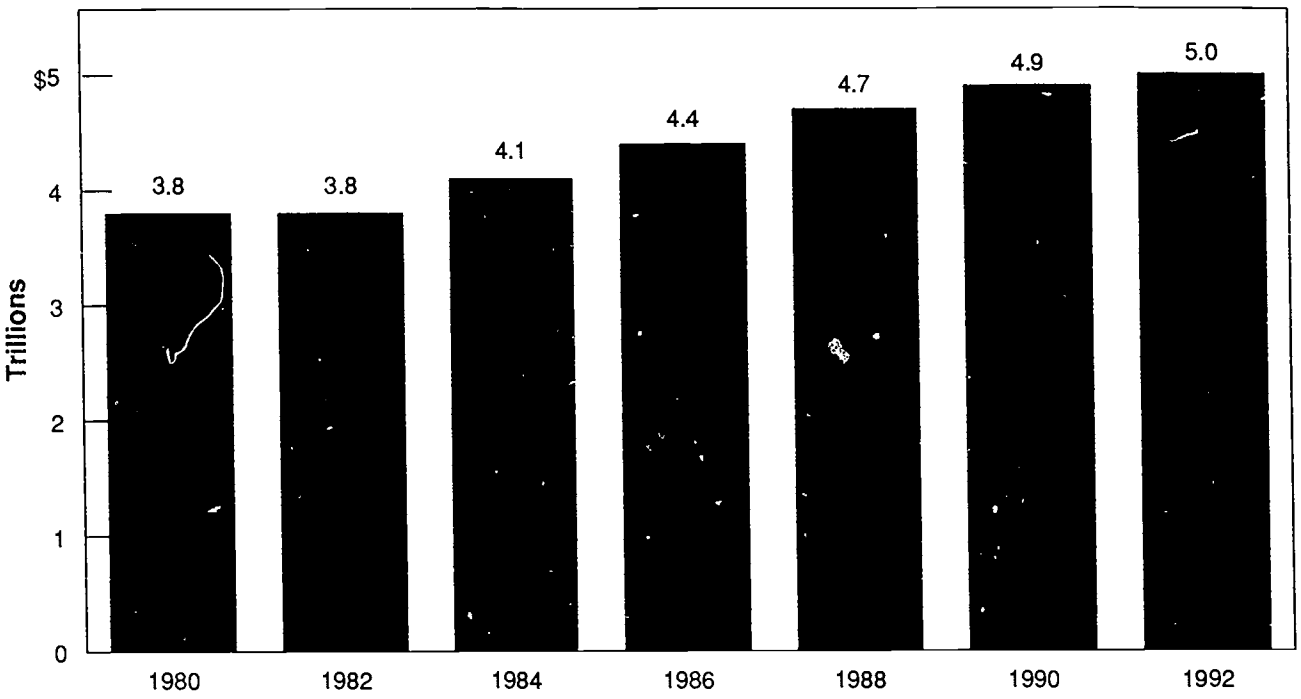
Federal non-research appropriations were 30 percent greater in 1992 than in 1980...



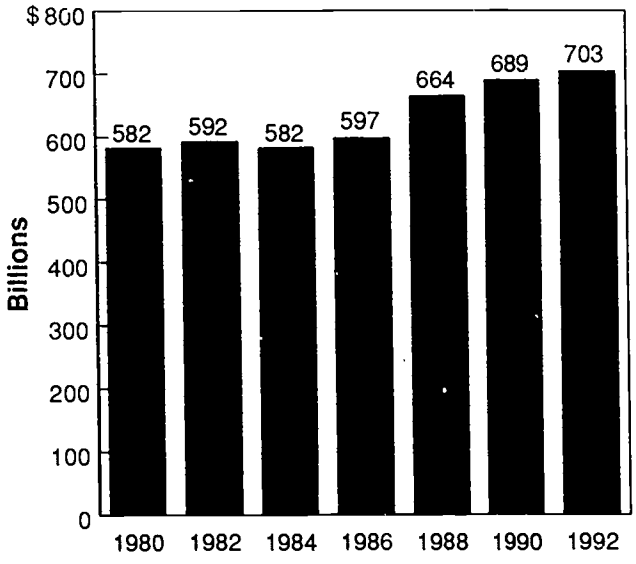
...while state appropriations grew by 110 percent.

Figure 3

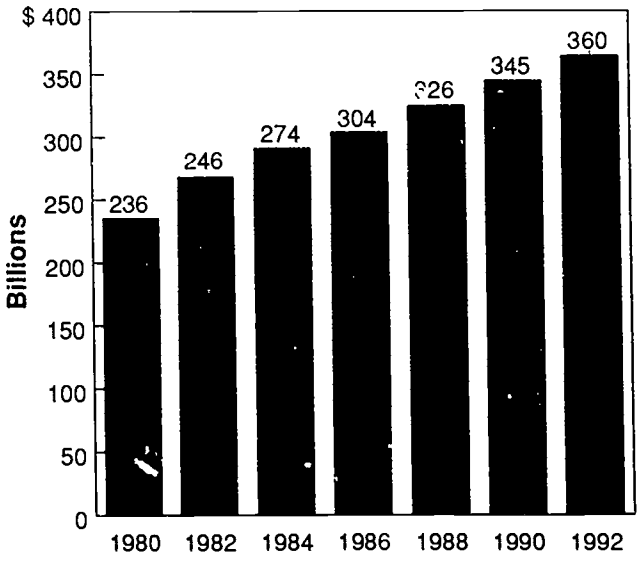
GDP and Federal and State Revenues, 1980–92
(in constant 1987 dollars)



The GDP's growth of the mid-1980s leveled off in the early 1990s.



Federal revenues have slowed under the impact of recessionary pressures.



State revenues have grown, even into the economic slowdown of the early 1990s.

Federal and State Revenues

Federal revenues increased by 18 percent between 1980 and 1990, an average biennial increase of 3 percent. From 1990 to 1992, they increased by 2 percent.

State revenues increased by nearly one-half (46 percent) from 1980 to 1990. The constant dollar biennial average increase was 8 percent during the decade—higher than the figure for either the GDP or federal revenues. The two-year change from 1990 to 1992 was 4 percent, half the previous decade's average, but again higher than the increase in either the GDP or federal revenues.

- The GDP increased by $1.1 trillion (constant 1987 dollars) between 1980 and 1990, an average biennial increase of about $224 billion. Its two-year increase from 1990 to 1992 was less than half as much ($89 billion). The GDP measured $5.0 trillion (constant 1987 dollars) in 1992.
- Federal revenues in 1980 were $582 billion in constant 1987 dollars. By 1990, they had increased to $689 billion, after having declined in the early part of the 1980s.
- The 1990 recession has taken its toll on federal funds: In 1992, federal revenues in constant dollars were $14 billion more than in 1990. The average biennial increase in the 1980s was $21 billion.
- In 1980, state revenues were $236.1 billion (constant 1987 dollars). By 1990, they totaled $345.2 billion.
- During the 1980s, state revenues showed an average biennial increase of $22 billion. From 1990 to 1992, the increase was $14 billion.

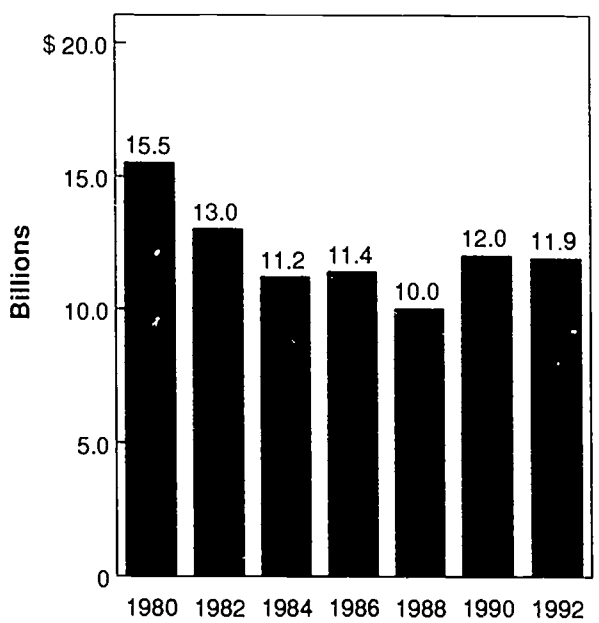
Federal and State Appropriations for Higher Education

When one removes the effects of inflation during the 1980s from federal appropriations trends and excludes funds for research and development, the decade does not look as good for higher education. The constant dollar value of federal appropriations for higher education in 1990 was *22 percent lower* than it was in 1980. The rate of change averaged about a 5 percent drop per biennium. The change from 1990 to 1992 was a drop of 1.5 percent (Figure 4).

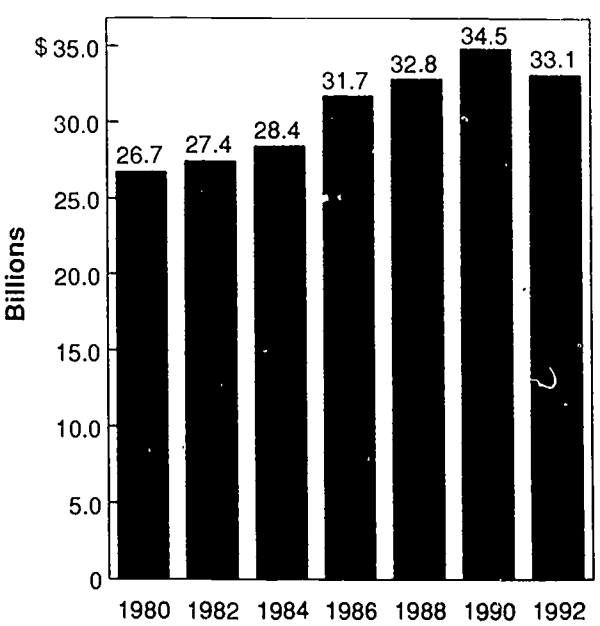
State appropriations in constant dollars increased throughout the 1980s, but dropped between 1990 and 1992. Appropriations in 1990 were 29 percent higher than they had been in 1980, a biennial average increase of 5 percent. In 1992, however, total constant 1987 dollar state appropriations for higher education operations were 4 percent *lower* than in 1990.

Figure 4

Federal and State Appropriations for Higher Education 1980–92 (in constant 1987 dollars)



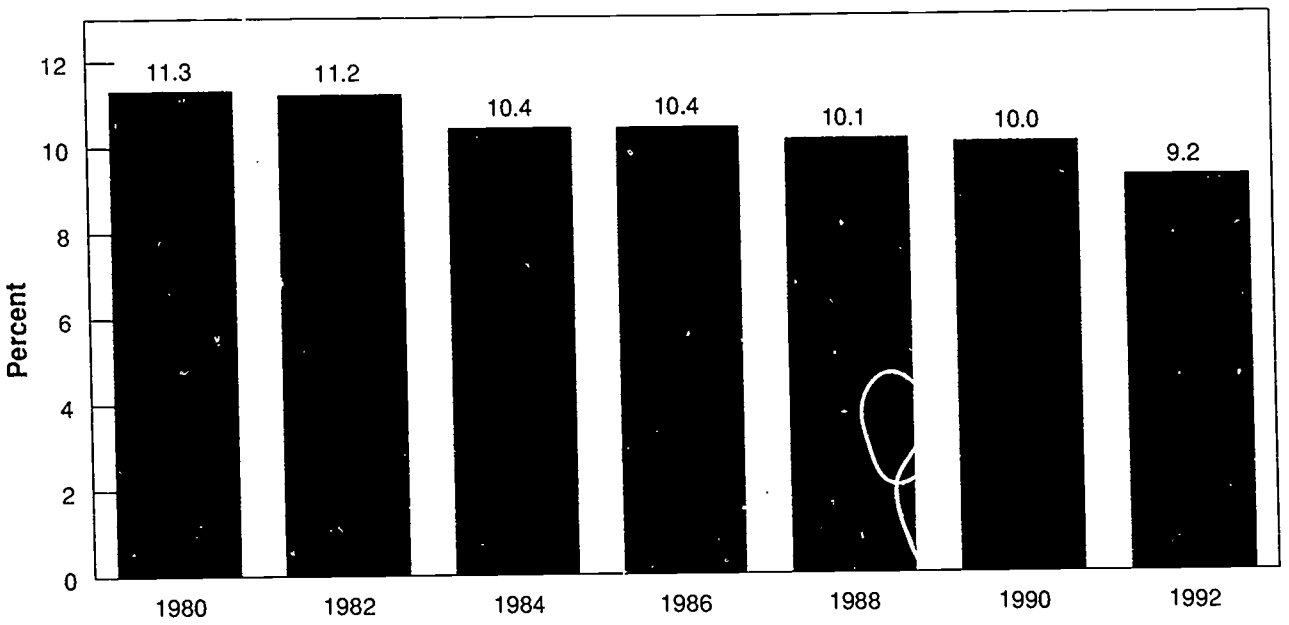
Federal non-research appropriations in constant dollars were smaller in 1992 than 12 years earlier.



State constant dollar appropriations grew until the economic slowdown in the early 1990s.

Figure 5

State Appropriations to Higher Education as a Percentage of General Revenues, 1980–1992



- In 1980, constant 1987 dollar federal appropriations for higher education (excluding research and development) amounted to $15.5 billion. In 1990, they were only $12 billion, and by 1992, they had dropped to $11.9 billion.

- State appropriations for higher education operations in 1980 totaled $26.7 billion in constant 1987 dollars. Ten years later, they had increased to $34.5 billion. But by 1992, they had fallen back to $33.1 billion.

Higher Education Appropriations as a Percentage of State Revenues

Linking state appropriations and revenues produces an index that may be considered a measure of a state's or region's level of effort to support higher education. This percentage is not necessarily related to the jurisdiction's wealth, and thus may be taken as an indicator of the commitment to, or effort concerning, higher education.

The largest portion of such appropriations for higher education is used in the public sector. However, appropriations in some states include state scholarship and financial aid dollars that are available to students at both public and independent institutions. And in some states, appropriated funds are used to support operations at independent institutions. Thus, while these state appropriations are directed primarily at higher education's public sector, some support the independent sector as well.

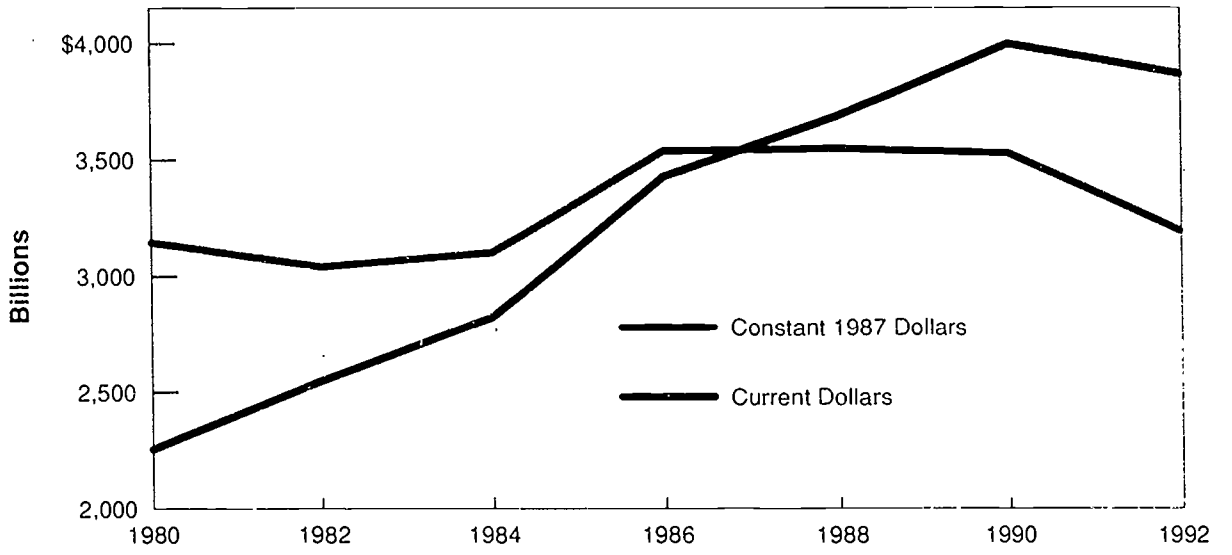
Nationally, the percentage of general revenues that state higher education appropriations represent has declined, from 11.3 percent in 1980 to 9.2 percent in 1992 (Figure 5).

- During the 1980s, the decline was moderate, moving down 1.3 percentage points (from 11.3 percent in 1980 to 10.0 percent in 1990).

- However, in the first two years of the 1990s, it dropped more than three-quarters of a percentage point, from 10.0 percent in 1990 to 9.2 percent in 1992.

This decline is partially the result of the growth in the share of state funds being devoted to other social demands, e.g., elementary and secondary education, health care, welfare, and corrections. Such reallocation of state funds, when coupled with slower growth of state revenues and continuing increases in enrollment, may have a substantial impact on higher education.

Figure 6
State Appropriations per FTE Enrollment, 1980–92



State Appropriations per Student

Because of the limited scope of this brief, details concerning the *use* of state funds cannot be examined here. However, it may be useful to relate the appropriations to the number of students served. Funds-per-student — be they appropriations, revenues, or expenditures — vary widely depending upon how one counts students and which students are counted. For this brief examination, the appropriations have been divided by the full-time-equivalent (FTE) enrollment of all students, not just those attending public institutions.[3]

State appropriations per FTE student were greater in 1992 than 12 years earlier (Figure 6). This held true for both current and constant 1987 dollars.

- Current dollar appropriations per FTE enrollment rose steadily throughout the 1980s, but then dropped between 1990 and 1992. They rose from $2,300 in 1980 to $3,900 in 1992, an increase of 70 percent.

- Converted to constant 1987 dollars, the appropriations per FTE student dropped in the early 1980s, rose in the middle of the decade, and then dropped again between 1990 and 1992. The 1992 figure of $3,200 was 2 percent higher than the 1980 average of $3,150.

These figures indicate that over the entire period, state appropriations stayed in line with enrollment growth.

Regional Data: State Revenues

State revenues in current dollars in each of the eight geographic regions[4] more than doubled in the dozen years under consideration. In New England, the revenues tripled, beginning from the second lowest base of the eight regions.

In terms of constant 1987 dollars, however, the growth was not as dramatic, and no region experienced a doubling of state revenues (Column A, Table 1). However four regions (Rocky Mountains, Mideast, New England, and Southeast) reported constant 1987 dollar percentage increases of more than 50 percent. From 1982 on, revenues grew in each of the eight regions, even into the 1990s. Table 1 is a reminder that the 1980s, like the 1990s, began with an economic downturn, and constant dollar state revenues in the Great Lakes and Plains states were less in 1982 than in 1980. In the 1990-92 biennium, although those regions registered less growth than the national average, they showed greater revenue increases than they had 10 years earlier.

Table 1 also shows that the mid-1980s were the years of greatest growth for state revenues for most regions. After the 1984–86 period, no region posted what could be considered a high percentage gain.

- New England showed the greatest increase from 1980 to 1992. Its growth rate was much better than that of the other regions in the mid-1980s. Note, too, that from 1990 to 1992, it posted an increase of 5.7 percent.

Table 1

Percentage Change in State Revenues by Region, 1980–92 (in constant 1987 dollars)

% Change 1980–92 (12 years)	Region	Percentage Change in State Appropriations for Higher Education from —						Average Biennial % Change 1980–90
		1980–82	1982–84	1984–86	1986–88	1988–90	1990–92	
A	B	C	D	E	F	G	H	I
52.3	50 STATES	4.1	11.4	11.1	7.0	6.0	4.2	7.9
80.0	New England	7.8	15.5	22.0	6.6	5.2	5.7	11.2
60.7	Mideast	4.5	14.7	12.3	7.0	2.5	8.7	8.1
57.3	Southeast	3.2	10.6	12.2	10.5	7.7	3.3	8.8
38.2	Great Lakes	-1.8	18.3	6.5	5.8	4.8	0.7	6.5
42.0	Plains	-0.4	15.9	3.2	9.9	5.0	3.3	6.6
48.3	Southwest	14.9	1.1	10.4	4.8	3.2	6.8	6.8
50.9	Rocky Mountain	10.0	10.2	6.3	2.5	7.2	6.6	7.2
49.3	Far West	4.8	5.9	13.6	5.1	10.9	1.7	8.0

Source: Bureau of the Census, *State Government Finances*, Series GF-3 (Washington, DC: GPO, annually).

Table 2

Percentage Change in State Appropriations for Higher Education Operations by Region, 1980–92 (in constant 1987 dollars)

% Change 1980–92 (12 years)	Region	Percentage Change in State Appropriations for Higher Education from —						Average Biennial % Change 1980–90
		1980–82	1982–84	1984–86	1986–88	1988–90	1990–92	
A	B	C	D	E	F	G	H	I
24.0	50 STATES	2.7	3.7	11.3	3.5	5.4	-4.1	5.3
21.7	New England	2.5	11.7	19.7	16.9	-4.1	-20.8	9.0
23.4	Mideast	3.5	5.6	12.2	7.5	3.9	-9.8	6.5
26.6	Southeast	3.8	5.0	14.5	2.9	5.8	-6.9	6.3
17.3	Great Lakes	-5.5	3.0	13.3	2.5	6.3	-2.4	3.7
17.5	Plains	-2.1	1.5	6.6	3.6	8.5	-1.4	3.6
34.1	Southwest	22.1	9.3	-4.0	-5.2	7.4	2.7	5.5
28.4	Rocky Mountain	7.5	8.5	5.4	0.5	2.6	1.1	4.9
24.8	Far West	-0.6	-3.9	16.5	3.9	6.0	1.8	4.2

Source: M. M. Chambers/Edward R. Hines, *State Higher Education Appropriations*, (NASULGC/SHEEO, 1980–92).

which again put it above the overall national figure of 4.2 percent for that period.

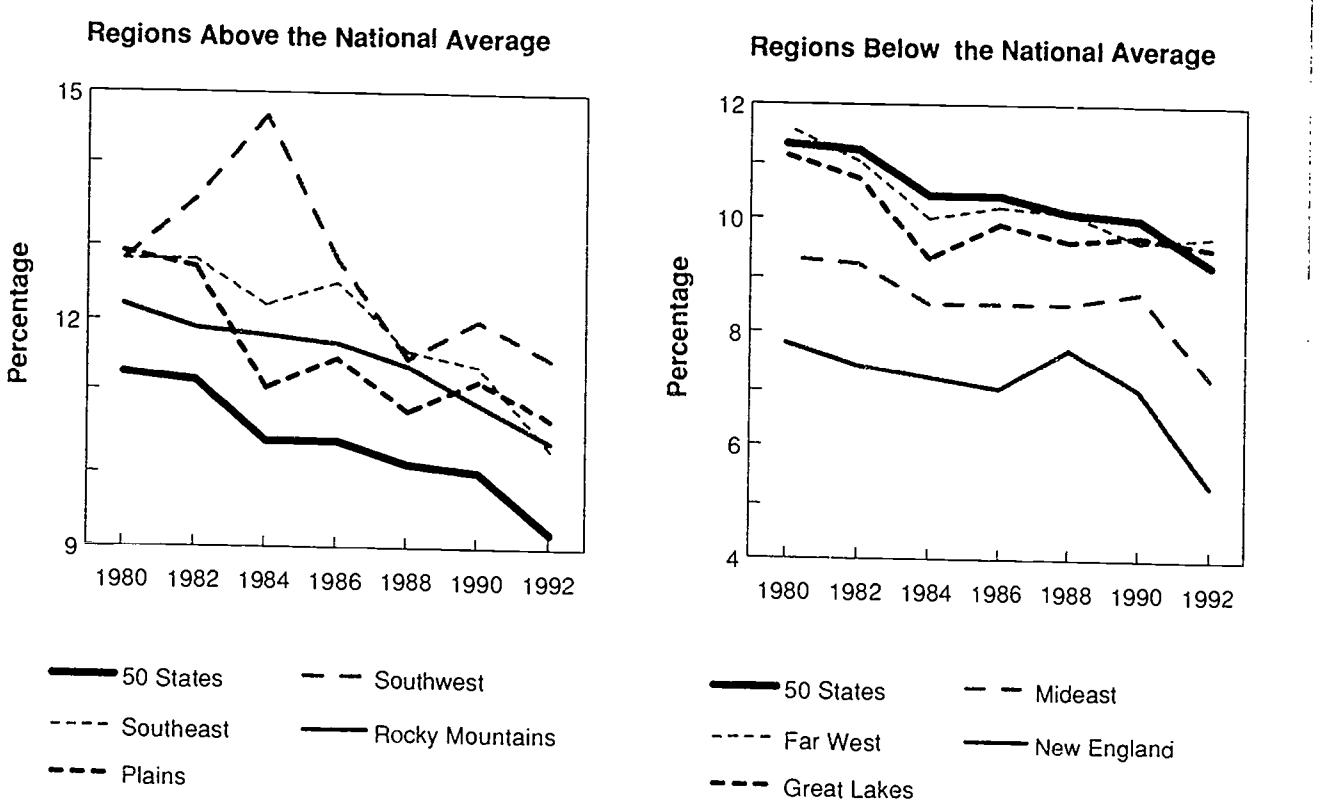
- The Great Lakes states reported the smallest percentage increase in their constant 1987 dollar revenues for the 12-year period. That region had shown an actual drop in revenue from 1980 to 1982, and it posted the smallest percentage gain from 1990 to 1992, but at least it was a gain.

For most regions, the 1990–92 change was much less than that of the preceding two years (1988–90). The exceptions were New England, the Mideast, and the Southwest regions.

Table 1 shows that only the Mideast's 1990–92 percent increase exceeded the average 1980s biennial increases. In most regions, the 1990–92 increases were less than half the average increases of the 1980s. A major question is whether state revenues in the 1990s will follow the pattern of the 1980s. This will depend on interactions of economic trends, perceived societal needs, and the public's response to taxation policies and intergovernmental competition for public funds.

Figure 7

State Appropriations as a Percentage of State Revenues by Region, 1980–92



Regional Data: State Appropriations

State appropriations for higher education in each of the regions doubled or nearly doubled in terms of current dollars during the 1980–92 period.

In terms of constant 1987 dollars, however, the change — though positive — was not nearly as great. The overall U.S. increase was 24 percent, and four of the regions met or exceeded that figure (Table 2).

- The Southwest led the way, with constant 1987 dollar appropriations in 1992 that were one-third higher than in 1980 (Column A, Table 2). Next came the Rocky Mountain region, with an increase of 28 percent; the Southeast, with 27 percent; and the Far West, with 25 percent.
- Appropriations in the Great Lakes and Plains states showed the smallest relative growth, increasing by 17 and 18 percent, respectively.

During the 1990–92 period of economic stagnation, all except the western regions (Southwest, Rocky Mountains, Far West) reported constant 1987 dollar declines (Col H, Table 2).

- New England reported a 21 percent drop in its state appropriations for higher education, by far the largest decrease of any of the regions.
- The Southwest's increase of 3 percent was the largest regional increase recorded during the 1990–92 period.

Regional Data: Appropriations as a Percentage of Revenues

Over the 12-year period, in each of the regions, state appropriations to higher education operations as a percentage of state revenues decreased. However, the changes were consistent neither over time, nor from region to region (Figure 7).

- The Far West's percentage changes most closely paralleled the national trend.
- The Southwest's percentage was the highest or the second highest throughout the period.

- The Mideast and New England states showed the smallest percentages throughout the period and the largest drops between 1990 and 1992.

- In 1992, constant 1987 dollar state appropriations were *greater* than they had been in 1980, but the share of state revenues that these funds represented was *smaller*. This held true in all regions.

A constant "appropriations/revenues" percentage over the period might indicate relative stability in the region's economy and in its desire for and commitment to higher education. A growing economy might permit a decreasing percentage that would, however, provide a constant or somewhat increased level of funding. That is what happened during the 1980s, when state revenues and appropriations increased, but the share of revenues going to higher education declined.

However, with a declining or stagnant economy and increasing demands on relatively scarce resources, a declining percentage can result in fewer resources available to public higher education. And that is what happened in the early 1980s and the early 1990s.

Conclusion

State appropriations for higher education operations increased between 1980 and 1992 — by 110 percent in current dollars and by 24 percent in constant 1987 dollars. However, the share of the states' revenues that higher education appropriations represented was less in 1992 (9.2 percent) than it had been 12 years earlier (11.3 percent). Thus, higher education's share got smaller even as the number of dollars it received got larger.

In 1992, Edward Hines[5] reported that, for the first time since the 1960 start of the annual report on state appropriations for higher education, the current dollar total reported for 1991–92 was less than that appropriated for the previous year. The sluggish economy was a factor in this retrogression, but so was the increased competition for the public dollar from other claimants, e.g., elementary and secondary education, health care, welfare, and corrections. Because the appropriations for some of these functions are based on formulas, they have an entitlement characteristic that higher education does not enjoy.

This has led to concern that the nation's citizenry and its representatives in state governments are downgrading the importance of higher education. Doomsayers may point to the 12-year decrease in the percentage of revenues devoted to higher education as support for that view. However, the 1994 report on state appropriations (Hines, 1994) indicates increased support for higher education operations in most of the nation's statehouses.

What remains ominous is the continued decline in many jurisdictions of the percentage of state general revenues that these increased appropriations represent.

At the same time, there is evidence that many colleges and universities are responding proactively to recent financial pressures. According to the American Council on Education's recent *Campus Trends, 1994*, more than half of the nation's public institutions have some sort of "reengineering" or organizational redirection effort underway.

Thus, higher education, like U.S. industry, is undergoing major self-examination, with an eye to greater efficiency and effectiveness. This may be a prelude to renewed efforts to justify — and, it is hoped, to receive — greater support from public authorities through more generous funding. Such reorganization or renewal also may enable the institutions to provide higher education at less cost to the taxpayer. In all likelihood, the future will bring a combination of the two approaches — more funds and more efficiency. Only time will tell what the proportional mix of the two will be.

Endnotes

[1] There are various ways of reporting federal revenues. The figures used here are those reported by the U.S. Bureau of the Census in its Government Finances Series (Series GF) and are adjusted to the system used for reporting state data. They will, therefore, not agree with figures in budget documents or other federal reports.

[2] "State revenues" in this brief refer to taxes (income, sales, license, and other) plus charges and miscellaneous general revenues. They exclude intergovernmental, utility, liquor store, and insurance trust revenues.

[3] The FTE enrollment of all students was selected as the divisor for calculating these statistics because a number of states report in their appropriations data sizable student financial aid funds that may be used at both public and independent institutions.

The divisor used in these calculations is the FTE enrollment figure for the fall of the year preceding the year of the appropriations data. This is done with the assumption that the Fiscal Year in most states ends either in mid-year or later, so that FY 1992 would coincide generally with the academic year beginning in fall 1991, the time of the enrollment count.

[4] The eight regions used in this brief are those identified by the Bureau of Economic Affairs (BEA), U.S. Department of Commerce. They differ somewhat from the Census Bureau's nine regions and from the administrative

regions of the U.S. Department of Education. The BEA regions are:

New England (CT, MA, ME, NH, RI, VT)
Mideast (DE, DC, MD, NJ, NY, PA)
Great Lakes (IL, IN, MI, OH, WI)
Plains (IA, KS, MN, MO, NE, ND, SD)
Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV)
Southwest (AZ, NM, OK, TX)
Rocky Mountain (CO, ID, MT, UT, WY)
Far West (AK, CA, HI, NV, OR, WA)

[5] Edward R. Hines, *State Higher Education Appropriations, 1991–92* (Denver, CO: State Higher Education Executive Officers, 1992) table 4.

Resources

- The **American Association of State Colleges and Universities (AASCU)** is a major source of data concerning public universities and four-year colleges. Its Department of Research publishes reports concerning a wide variety of issues — including governmental policy and finances — that affect such institutions. Most recently, it published its 1994 *Report of the States*, compiled by Robert Sweeney. Publications are available from the association. Telephone: (202) 293-7070.

- The **Bureau of the Census** publishes the Government Finance Series (Series GF) each year. Included in the series are publications on state and city government finances, and a general report that includes data from all three levels (local, state, and federal). Data come from the Bureau's *Annual Survey of Government Finances*. This publication is prepared by the Bureau's Governments Division. Telephone: (301) 763-7664.

  The Census Bureau also publishes annually the *Statistical Abstract of the United States*. That document contains data concerning demographics and the finances of governments and higher education. Summary data from the Government Finance Series are shown over a period of years.

  Bureau of the Census publications are available from the Government Printing Office, Washington, DC 20402. Order Desk telephone: (202) 512-1800.

- The **Center for Higher Education at Illinois State University** collects state appropriations data from a nationwide network of state and higher education officials. Until academic year 1991–92, the National Association of State Universities and Land-Grant Colleges (NASULGC) published these data, the collection of which had been started more than 30 years ago by M.M. Chambers. In recent years, they have been published annually in the *Chronicle of Higher Education* and in an annual monograph, *State Higher Education Appropriations*. Currently authored by Edward R. Hines of the Illinois State University faculty, the reports are published by the State Higher Education Executive Officers (SHEEO), Suite 2700, 707 17 Street, Denver, CO 80202-3427. Telephone: (303) 299-3686.

- The *Economic Report of the President*, and the *Annual Report* of the **Council of Economic Advisers** are published each year by the federal government. They contain a wealth of trend data concerning national income and expenditures, prices, and government finance. They are available from the U.S. Government Printing Office. Order Desk telephone: (202) 512-1800.

  The Council of Economic Advisers also prepares current national income and price index data that are available monthly in *Economic Indicators*, published for the Joint Economic Committee of the United States Congress. It is available by subscription from the U.S. Government Printing Office. Order Desk telephone: (202) 512-1800.

- The **National Center for Education Statistics (NCES)** in recent years has published an annual report, *Federal Support for Education*, which indicates the amount of federal support provided by the various federal agencies and reports its distribution to recipients categorized by level (elementary and secondary, postsecondary, research) and type (local education agency, institution of higher education, student). Summary tables from this report also are published in an annual NCES publication, *Digest of Education Statistics*. NCES information telephone number: (800) 424-1616.

Bibliography

American Association of State Colleges and Universities. *Report of the States*. Washington, DC: American Association of State Colleges and Universities, 1994.

Chambers, M. M. *Appropriations of State Tax Funds for Operating Expenses of Higher Education*. Washington, DC: National Association of State Universities and Land-Grant Colleges (NASULGC), issued annually. Upon Dr. Chamber's death in 1985, the series has been continued under the authorship of Edward R. Hines. With the 1991–92 publication, the series' title was changed to *State Higher Education Appropriations*, and the State Higher Education Executive

Officers (SHEEO), Denver, Colorado, undertook its publication.

Council of Economic Advisers. *Economic Indicators*. Washington, DC: Government Printing Office. Issued monthly.

_____. *Economic Report of the President, 1993*. Washington, DC: Government Printing Office, 1993.

El-Khawas, Elaine. *Campus Trends, 1994: A Time for Redirection*. Washington, DC: American Council on Education, 1994.

Hines, Edward R. *State Higher Education Appropriations*. Denver, CO: State Higher Education Executive Officers (SHEEO), issued annually. See entry under Chambers, M. M.

National Center for Education Statistics (NCES), U.S. Department of Education. *Digest of Education Statistics*. Washington, DC: Government Printing Office. Issued annually.

_____. *Federal Support for Education, 1991–92*. Washington, DC: Government Printing Office, 1993.

U.S. Bureau of the Census. *Government Finances, 1991–92*. Series GF/92-5. Washington, DC: Government Printing Office, 1993.

_____. *State Government Finances*, Series GF-3. Washington, DC: Government Printing Office. Issued annually.

_____. *Statistical Abstract of the U.S*. Washington, DC: Government Printing Office. Issued annually.

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