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APPROPRIATIONS OF STATE TAX FUNDS FOR OPERATING EXPENSES OF HIGHER
 EDUCATION FOR FISCAL YEARS 1980-81, 1988-89, AND 1990-91,
 WITH PERCENTAGES OF GAIN OVER THE MOST RECENT TWO AND TEN YEARS.
 (In thousands of dollars)

States	Year 1980-81	Year 1988-89	Year 1990-91	2-yr gain Percent	10-yr gain Percent
(1)	(2)	(3)	(4)	(5)	(6)
Alabama	384,848	775,344	866,989	12	125
Alaska	127,161	166,814	181,834	9	43
Arizona	280,446	538,014	613,806	14	119
Arkansas	187,567	310,795	319,014	3	70
California	3,178,707	5,396,436	6,100,728	13	92
Colorado	263,984	475,181	516,793	9	96
Connecticut	209,800	473,716	485,846	3	132
Delaware	63,811	107,515	122,391	14	92
Florida	718,509	1,472,625	1,632,302	11	127
Georgia	431,929	812,299	961,283	18	123
Hawaii	137,573	267,472	297,625	11	116
Idaho	94,146	144,987	183,997	27	95
Illinois	1,001,248	1,417,662	1,722,530	22	72
Indiana	445,850	755,614	876,162	16	97
Iowa	309,039	482,480	576,924	20	87
Kansas	259,859	387,969	458,895	18	77
Kentucky	307,572	519,683	607,445	17	97
Louisiana	398,325	483,033	585,729	21	47
Maine	62,622	162,482	195,912	21	213
Maryland	367,701	700,598	885,085	26	141
Massachusetts	322,498	868,426	697,248	-20	116
Michigan	757,770	1,342,033	1,486,694	11	96
Minnesota	489,955	861,462	1,028,528	19	110
Mississippi	261,409	425,671	443,597	4	70
Missouri	342,685	551,755	637,378	16	86
Montana	67,348	105,277	116,648	11	73
Nebraska	166,155	253,431	329,121	30	98
Nevada	62,107	121,249	163,324	35	163
New Hampshire	32,919	72,454	72,959	1	122
New Jersey	520,275	1,139,597	1,055,893	-7	103
New Mexico	162,015	276,222	335,466	21	107
New York	1,644,361	3,047,894	3,142,943	3	91
North Carolina	660,645	1,329,606	1,484,279	12	125
North Dakota	61,822	115,723	129,756	12	110
Ohio	685,292	1,320,808	1,520,055	15	122
Oklahoma	271,180	415,192	509,471	23	88
Oregon	250,443	361,188	420,047	16	68
Pennsylvania	788,141	1,268,930	1,421,710	12	80
Rhode Island	84,111	142,291	141,139	-1	68
South Carolina	344,492	577,489	644,726	12	87
South Dakota	51,134	78,576	91,415	16	79
Tennessee	341,087	686,235	743,821	8	118
Texas	1,464,881	2,245,958	2,579,342	15	76
Utah	155,611	263,964	295,884	12	90
Vermont	30,459	53,855	59,830	11	96
Virginia	511,737	1,031,167	1,077,934	5	111
Washington	467,717	719,437	840,231	17	80
West Virginia	167,717	253,525	262,731	4	57
Wisconsin	511,067	738,670	843,543	14	65
Wyoming	70,504	116,183	120,719	4	71
Totals	20,978,234	36,634,987	40,887,722		
Weighted average percentages of gain				12	95

STATE SUPPORT OF HIGHER EDUCATION: A RETROSPECTIVE OF FY1991
by Edward R. Hines

Predominate Features in State Support for FY1991

Three characteristics identify trends in state higher education support for FY1991. First, over \$40 billion dollars were appropriated by the states to higher education, and this was the first time that this amount nationwide exceeded \$40 billion. Second, the dollar gain from FY1990 to FY1991 (\$1.5 billion) was equal to the dollar gain reported in 1984 and 1987, and was the second smallest since 1980. Only in FY1983, following a nationwide recession, was the dollar gain for higher education smaller in amount (\$1.3 billion). The third identifying characteristic for FY1991 was the percentage of gain which, in one-year and two-year percentage gains, was the smallest since Grapevine statistics began to be collected in 1958-59. From FY1990 to FY1991, there was only a 3.7% gain, and from FY1989 to FY1991 there was only a 11.6% gain.

Nationwide Gains

Table 1 and the 50-state summary table on the front page of this issue present a statistical view of state higher education support. This year, FY1991, was the first time on record that state support for higher education did not double in magnitude over the ten-year period; there was a billion dollars less than a doubling in support from FY1981 (\$20.9 billion) to FY1991 (\$40.9 billion).

In dollars, the gain from FY1990 to FY1991 was one of the lowest experienced in recent years. However, since 1980, there have been five years where the dollar gains for higher education were less than 2.0 billion, in 1981, 1983, 1984, 1987, and the current year. Only in FY1983 was the dollar gain (1.3 billion) less than that experienced in FY1991, although the dollar gain in FY1984 and FY1987 equaled the dollar gain in FY1991.

The one-year and two-year percentage gains revealed that both the one-year percentage gain from FY1990 to FY1991 and the two-year percentage gain from FY1989 to FY1991 were the lowest on record, a 3.7% one-year gain and a 11.6% two-year gain. During the previous decade (FY1981 to FY1991), there was only one other year when the one-year percentage gain was less than five percent (4.8% in 1987). There were two years, however, when the two-year percentage gain was 12% or less (1988 and 1984). It should be noted that revisions were made in the original appropriations figures for FY1984 and FY1988 which raised the national two-year percentage gains by a small amount. Should an increase in total appropriations occur for FY1991, the two-year percentage gain could increase by a small amount.

Table 1

Fiscal Years	1981*	1982*	1983*	1984*	1985*	1986*	1987*	1988*	1989*	1990	1991
Billions of Dollars	20.9	23.1	24.4	25.9	28.4	30.7	32.2	34.4	36.6	39.4	40.9
1-Yr Gain (\$billions)	1.7	2.2	1.3	1.5	2.5	2.3	1.5	2.2	2.2	2.8	1.5
1-Yr Gain (Percent)	9.6	10.1	5.6	5.9	9.7	8.0	4.8	6.8	6.3	7.6	3.7
2-yr Gain (Percent)	22.9	20.7	16.3	11.8	16.2	18.8	13.1	12.0	13.5	14.3	11.6

*Data for these fiscal years have not been revised from earlier reports.

Recent Trends in Two-Year Gains

Table 2

Table 2 displays three groupings of states, according to whether or not there was a two-year percentage gain in FY1991 which was greater (an increase) or smaller (a decrease) than the two-year percentage gain reported for that state in FY1990. It is possible to observe trends over time by utilizing this table, which has been included in these "Retrospective Reports" since 1988. A summary of this chart for each year, going back to 1988, is shown in Table 3. It is clear that the trend observed in 1989 and in 1990--of an increasing number of states making gains in supporting higher education--was not continued in FY1991. This year, the trend virtually duplicates the pattern observed in 1988, as shown in Table 3, with only 17 states showing a percentage increase in two-year gains from the previous year, and in FY1991 26 states experiencing a decrease in two-year percentage gain for higher education from the previous year. FY1991 turned out to be an "off year" for higher education, much as 1988 was a year when far fewer states were able to make two-year percentage gains over the previous fiscal year.

Of the 17 states reporting an increasing two-year percentage gain from FY1990 to FY1991, two experienced "double-digit" gains including 15 points in Louisiana and 13 points in Idaho. In the remaining 15 states, there

17 States with Increasing 2-Year Gains, FY90 to FY91			26 States with Decreasing 2-Year Gains, FY90 to FY91		
State	FY90*	FY91	State	FY90*	FY91
Alaska	6	9	Alabama	16	12
Georgia	16	18	Arkansas	6	3
Idaho	14	27	Colorado	14	9
Iowa	14	20	Connecticut	12	3
Kentucky	11	17	Florida	15	11
Louisiana	6	21	Hawaii	20	11
Michigan	8	11	Illinois	26	22
Minnesota	16	19	Kansas	23	18
Montana	4	11	Maine	25	21
Nebraska	27	30	Maryland	34	26
Nevada	30	35	Massachusetts	-9	-20
New Mexico	13	21	Mississippi	20	4
Ohio	13	15	Missouri	20	16
Oklahoma	15	23	New Hampshire	11	1
Oregon	13	16	New Jersey	12	-7
Utah	6	12	New York	11	3
Wisconsin	13	14	North Carolina	14	12
Seven States with Identical 2-Year Gains, FY90 to FY91			Pennsylvania	16	12
Arizona	14	14	Rhode Island	13	-1
California	13	13	South Carolina	18	12
Delaware	14	14	South Dakota	17	16
Indiana	16	16	Tennessee	14	8
North Dakota	12	12	Texas	18	15
Washington	17	17	Vermont	20	11
Wyoming	4	4	Virginia	21	5
			West Virginia	6	4

*Unrevised from last year's report, with the exception of the FY1990 figure for North Dakota.

Table 3

Fiscal Year	1988	1989	1990	1991
Increasing	17	26	31	17
Decreasing	28	20	15	26
Identical	5	4	4	7

were "single-digit" gains. However, in the 26 states where there were decreases in two-year percentage gains from FY1990 to FY1991, six states experienced double-digit declines. There were declines of 19 points in New Jersey, 16 points in Mississippi and Virginia, 14 points in Rhode Island, 11 points in Massachusetts, and 10 points in New Hampshire. There were 20 other states with declines. In FY1991, seven states experienced identical gains from FY1990 to FY1991, and five of the seven were above the national average percentage gain of 11.6%.

The Megastates

The "Megastates of America," using a term coined by Neal Pierce in a book of the same title, refers to states which are highly populated, industrialized, and with relatively large higher education systems. The number of megastates, each of which annually appropriates more than one billion dollars for higher education, has grown from nine such states in FY1986 to 12 states in FY1991. This number is nearly one-quarter of the 50 states.

Of the 12 megastates, six reported two-year percentage gains which were greater than the national average of 11.6% (Illinois, Minnesota, Ohio, Texas, California, Pennsylvania); North Carolina had a two-year percentage gain equal to the national average; and five states were below the national average (Florida, Michigan, Virginia, New York, and New Jersey). Viewed in another light, however, four of the 12 states appeared in the top two quartiles of states, using two-year percentage gains (Illinois, Minnesota, Ohio, Texas), and the remaining eight states had two-year percentage gains which were in the bottom two quartiles.

A Regional View of FY1991

It is possible to arrange the 50 states according to their geographic location (quadrants) and according to the quartiles arranged in rank order of descending two-year percentage gains. Table 4 displays the states using quadrants and quartiles. Geographic quadrants were formed by dividing the United States into four relatively even regions by locating a national "center point" at the northeast corner of Missouri. The Mississippi River divides East from West, and the Ohio River and southern border of Pennsylvania divide Northeast from Southeast. Alaska is placed with the Northwest and Hawaii is placed with the Southwest. The Northwest has 11 states, the Southwest has 13, the Northeast has 14, and the Southeast has 12 states. The quartile grouping of states, based upon descending two-year percentage gains, may have varying numbers of states in a quartile in any one year due to the natural dividing lines between state groupings at specific percentage amounts. In this analysis for FY1991, 11 states were in the top quartile (19% to 35%), 13 states were in the second quartile (14% to 18%), 12 states were in the third quartile (10% to 13%), and 14 states were in the bottom quartile (- 20 to +9%).

In the top quartile of 11 states, only Nevada reported a two-year percentage gain of more than 30%, ten states had gains of 19% to 30%, 14 states ranged from 13% to 18%, and six states clustered at 12%. There were five states at 11%, and the remaining 14 states experienced either single-digit or negative gains from FY1989 to FY1991.

By combining the quartile grouping with geographic quadrants, observations can be made along regional lines. In the Northeast, only two states appeared in the top quartile while six states were in the bottom quartile. Similarly, only a single Southeastern state appeared in the top quartile while four Southeastern states were in the bottom quartile. Of the 14 Northeastern states, nine were in the bottom half and, of the 12 Southeastern states, eight were in the bottom half. The states west of the Mississippi River generally revealed a different and more positive pattern. In the Northwest, seven of 11 states were in the top half with four states in the top quartile. In the Southwest, eight of 13 states were in the top half and four were in the top quartile. Only two of 11 Northwest states were in the bottom quartile and only two states in the Southwest appeared in the bottom quartile.

Table 4

Quadrants	NW*	SW**	NE	SE	Totals
<u>Quartiles</u>					
Highest	4	4	2	1	11
Second	3	4	3	3	13
Third	2	3	3	4	12
Lowest	2	2	6	4	14
Totals	11	13	14	12	50
*Includes Alaska **Includes Hawaii					

Analysis of Trends in State Support for FY1991

The purpose of this analysis is to begin to identify and to explain the trends and variations in support of higher education among the states. The discussion focuses on differences in revenue capacity and in the willingness of lawmakers to support higher education. Further explanation includes differences among states in support for student financial aid, state support to community colleges, and state support of principal state universities.

Regional Variations. In 1988, this author observed that: "FY1987 and FY1988 were characterized by clear economic resurgence in New England, a strong performance of coastal states, and severe economic difficulties in the Southcentral and Northern Plains regions." No longer does that observation apply, but, in fact, one might make nearly the opposite observation, based on state support for higher education in FY1991. Unlike earlier comparisons of the "Sunbelt versus the Rustbelt," or the "Northeast versus the Southwest," for FY1991 the observation would be "East versus West," although, admittedly, it is easy to gloss over differences within regions which may be as large and important as differences among regions. Nonetheless, some regional observations can be made.

It is clear that many states east of the Mississippi River experienced considerable difficulties in either maintaining or increasing their support to higher education in FY1991, as compared to previous years. With respect to the 14 Northeastern states, two states appeared in the top quartile (Illinois and Maine), yet the evidently strong performance of Illinois is mitigated by its 22% being a two-year percentage gain. In the single year from FY1990 to FY1991, Illinois' percentage gain was one percent; therefore, a two-year percentage gain masks a more negative reality. Shifting Illinois into the lowest quartile, for instance, would result in one-half of the 14 Northeastern states being in the bottom quartile. Of these seven states, four are in New England with Vermont in the third quartile. Thus, of the six New England states, only Maine is in the top half. A majority are in the bottom quartile. Similarly, Maryland is the only Southeast state in the top quartile; eight of the 12 Southeast states are in the bottom half.

Conversely, of the 24 states west of the Mississippi River, one-third (eight states) appeared in the top quartile and only half that number (four states) were in the bottom quartile. The Northern Plains states (Minnesota, South Dakota), the central farm states (Nebraska, Kansas, Missouri), and the South Central states (Louisiana, Texas, Oklahoma) did well as did the western states of New Mexico, Nevada, and Idaho.

Revenue Variations. Many variables affect whether or not states are able to support higher education. None is more critical than "ability" and "willingness." Ability to support a public service, such as higher education, is interpreted as the fiscal capacity of a state to support higher education, defined here as "state revenue capacity" and measured by the percentage of change in the state's general revenue fund from one year to the next. Of equal importance is the willingness of state legislators and governors to provide actual appropriations, defined here as "lawmaker willingness" and measured by the percentage increase in overall state tax appropriations from one year to the next. Finally, and more specifically, actual higher education effort is defined as the percentage increase in state tax appropriations over the most recent two-year period as measured by current Grapevine data.

These three variables are operationalized in Table 5. State revenue capacity is defined by data from a summer survey of legislative fiscal officers by the National Conference of State Legislatures (NCSL). As contained in Table 5, state revenue capacity is based on the projected growth rate in state general fund revenue from FY1990 to FY1991. Lawmaker willingness is an estimate by legislative fiscal officers of the extent of growth in total state appropriations from FY1990 to FY1991. State higher education effort is derived from the actual state tax appropriations provided by each state to Grapevine as soon as possible after legislative decisions on higher education were made.

The states shown in Table 5 were those which showed either the highest or the lowest percentage gains in state tax appropriations from FY1989 to FY1991. There were 10 states in each grouping. The high group had a 24.6% mean two-year gain for higher education while the low grouping had a -.6% two-year gain for higher education. In total state appropriations, the high and low states demonstrated a 9.8% gain and a 4.0% gain, respectively. Similarly, in state revenue capacity, there was an 8.5% gain for the high group and a 6.9% gain for the low group. The states making greater higher education effort clearly were those having a greater revenue capacity as well as a willingness to support statewide services, in general.

Also shown in Table 5 are the means for state revenue capacity, lawmaker willingness, and higher education effort for the most recent five years. Interestingly, in revenue capacity, the difference between the highest and lowest state groupings has narrowed from 7.7 points in FY1987 to 1.6 points in FY1991. This indicates that there are smaller differences between top and bottom state groupings in revenue capacity over time. There is less of a difference in states' "ability to pay" between the high and low states, indicating that the availability of revenue has been diminishing, generally. Comparatively, in state tax appropriations increases over the five years, there are consistent differences between the high and low states. The differences diminish moderately over time, but there is a comparatively larger difference between the high and low state groupings. This indicates that, despite the fact that states are in the position of having less revenue which is available to be appropriated to such areas as higher education, they still make as strong an effort as possible in making overall appropriations, however, the states' effort to support higher education is inconsistent. Some states receive very little increase in state tax support; indeed, in three of the five most recent years, the bottom group of states has demonstrated a decline in state support, as shown by a negative figure for these states.

Table 5

States	TOP TEN TWO-YEAR GAINERS			States	BOTTOM TEN TWO-YEAR GAINERS		
	General Fund Increase ¹	State Approp Increase ¹	Higher Education Increase ²		General Fund Increase ¹	State Approp Increase ¹	Higher Education Increase ²
	1-year %	1-year %	2-year %		1-year %	1-year %	2-year %
	(1)	(2)	(3)		(4)	(5)	(6)
Nevada	7.1	14.7	35	Mississippi	5.3	3.9	4
Nebraska	19.7	12.0	30	Wyoming	2.1	5.4	4
Idaho	5.1	15.1	27	West Virginia	2.0	1.1	4
Maryland	9.1	3.9	26	New York	2.9	3.0	3
Oklahoma	14.0	18.6	23	Arkansas	3.8	3.8	3
Illinois	4.9	3.4	22	Connecticut	6.3	0.9	3
New Mexico	7.7	6.6	21	New Hampshire	7.7	6.1	1
Louisiana	1.2	6.3	21	Rhode Island	8.9	4.4	- 1
Maine	11.7	7.7	21	New Jersey	15.9	8.3	- 7
Iowa	4.8	9.7	20	Massachusetts	13.7	3.3	- 20
Mean in FY91	8.5	9.8	24.6	Mean in FY91	6.9	4.0	- 0.6
Mean in FY90	5.7	10.4	25.3	Mean in FY90	4.2	3.4	4.8
Mean in FY89	7.3	9.1	25.2	Mean in FY89	- 0.3	1.5	0.2
Mean in FY88	7.2	7.7	23.0	Mean in FY88	5.1	0.8	- 5.3
Mean in FY87	5.6		26.1	Mean in FY87	- 2.1		- 0.4

Sources: ¹ Eckl, Corina L., Hutchinson, Anthony M., and Snell, Ronald K. State Budget and Tax Actions 1990. Denver, CO: National Conference of State Legislatures.

² Grapevine

State Support for Student Financial Aid. State tax appropriations data, as reported in Grapevine, are intended to be used for aggregate analysis at the state level. More specific line items, such as state support of state scholarship programs, are not intended to be analyzed utilizing Grapevine data. At the same time, in the reports submitted by states to Grapevine, it is possible to identify a specific item for student financial aid where states report student aid separately. In the data for FY1991, there were 36 states where student aid was identified as a separate item. The reader is cautioned that this cannot be interpreted to mean that there are only 36 states where state resources are used for student aid. In these 36 states, there was a 30.8% two-year gain in student financial aid programs. This figure is nearly three times that of the national average of 11.6% two-year gain in state tax support for higher education. In 24 of the 36 states, there was a greater percentage gain in student aid, than there was a percentage gain in total higher education support in each state. Conversely, in only 12 states there were smaller percentage gains in state student aid, compared to total higher education support in each state.

State Support to Community Colleges. State tax support to community and public two-year colleges is an important source of revenue. In recent years, this report has identified that on a national basis percentage gains in support to community colleges usually are one or two percentage points greater than state higher education support in each state. FY1991 was no exception; two-year percentage gains in state tax support of community colleges were more than five points greater total higher education support in each state. In 41 of the states, it was possible to identify specific amounts indicating state appropriations to community colleges. There was a 16.8% two-year percentage gain for community colleges, compared to an 11.6% national average two-year percentage gain for higher education. Furthermore, in 26 of the 41 states the percentage gains in state support of community colleges were greater than the two-year percentage gains to higher education in each state. In only 14 states were the percentage gains to community colleges smaller than the percentage gains to higher education in each state. In one state, the percentage gain in community college support was equal to the percentage gain to higher education.

State Support of Principal State Universities. Readers are cautioned that it is not the purpose of state tax appropriations data, as published in Grapevine, to isolate discrete items for comparative analysis. Yet, in the FY1991 data, another feature "stood out" and preliminary comment may be warranted. The principal state universities are those major research universities which may serve as the "flagships" of the respective state higher education systems. These institutions often but not always include the land-grant universities. In recent years, it has been common for these principal state universities to receive an appropriations amount which brings their two-year percentage gains to a level equal to or exceeding the percentage gains in higher education support in each state. This year, in FY1991, a different pattern emerged where the two-year percentage gains in support to principal state universities were often less than the percentage gains in higher education support in each state. Principal state universities were identified in 47 states. In those 47 states, there was an average 11.47% two-year gain in support of the principal state universities. This amount is very close to the national average of 11.6 two-year gain.

Yet, in 32 of the 47 states, two-year percentage gains experienced by principal state universities were smaller than the two-year percentage gains experienced by the states. In only nine states were the two-year percentage gains by principal state universities greater than the percentage gains by the states. In six states, there was an identical two-year percentage gain by the principal state universities and by the states. It appears, for instance, that in FY1991 support to areas such as the state college system, student aid, or the community college system, was enriched. There is no reason to believe, and these data do not support, any observation about a decision not to fund principal state universities to the level that they had been funded in

recent years. Yet, it can be observed that the percentage gains in state support to these research universities, compared to gains in state support to state colleges, were a bit lower this year.

State Budgeting Concerns. Changes in the original legislative appropriations occurred in a relatively larger number of states, causing revisions in the original figures submitted to Grapevine. In a number of instances, these were "last-minute" changes submitted by telephone or fax to Grapevine just prior to publication in The Chronicle of Higher Education in October. The magnitude and the number of these changes give rise to a hypothesis about there being uncertainty in the state budgeting process for higher education, perhaps reflecting larger fiscal and economic concerns in the states. These concerns, given the instability in the financial and global markets as this report is written in October 1990, may be associated with greater uncertainty in state budgeting for higher education than has been experienced in recent years.

Summary

In summary, this report has dealt with state tax appropriations for the operating expenses for higher education for FY1991. It was observed that there had been a marked change in state higher education support from FY1990 to FY1991 with the current year witnessing lower two-year percentage gains for higher education, and a regional pattern characterized by fiscal problems in the East and relatively stronger support for higher education in the West. In addition, there was a stronger pattern of state support for student financial aid, as measured by two-year percentage gains, than had been observed in recent years. There was a stronger pattern of state support to community colleges than experienced by individual states. While state support of principal state universities is comparable in percentages of gain to total higher education support in each state, there was a majority of states where actual percentage gains in support to research universities were a bit less than percentage gains experienced by individual states. Finally, the instability in national and global financial markets gives rise to concerns and uncertainties about the process of state budgeting for higher education.

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