COMPARATIVE STATE TAX SUPPORT OF HIGHER EDUCATION IN THE EAST NORTH CENTRAL REGION: INDIANA AND FOUR NEIGHBORING STATES

M. M. Chambers

January 1981
PREFACE

It is fascinating to compare Indiana, Illinois, Ohio, Michigan and Wisconsin as to their state tax support of higher education, and to observe various other features of the condition of higher learning in those states.

The fifty state legislatures may continue for some time to be the most productive single source of operating income for the whole of the nationwide complex of institutions offering instruction above the high school. For the fiscal year 1981 their aggregate appropriations for that purpose were nearly $21 billion.

During the 1970's continued progress was made toward wider access to choices and opportunities for people of all social and economic classes. Odious discrimination on grounds of age, sex, race, religion, national origins, physical handicaps, and financial deprivation all tended to be reduced, albeit not as rapidly as some of the disadvantaged persons properly hoped.

It is clear that the positive aim of "more and better higher education for more people" is an essential of the American tradition. It will inevitably overcome the darker mood of defeatism and cynicism that gained some unwarranted prominence in recent years.

Normal, Illinois
January 1981

M. M. Chambers
COMPARATIVE STATE TAX SUPPORT OF HIGHER EDUCATION
IN THE EAST NORTH CENTRAL REGION: INDIANA
AND FOUR NEIGHBORING STATES

Contents

Preface ........................................ vi
Contents ........................................ vii
Topical Table of Contents ........................ viii
List of Tables and Maps ........................... xi
SYNOPSIS ...................................... xv

Sections

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>FIRST COMPARISONS</td>
<td>1</td>
</tr>
<tr>
<td>II</td>
<td>PRIORITY OF HIGHER EDUCATION AS A STATE FUNCTION</td>
<td>16</td>
</tr>
<tr>
<td>III</td>
<td>INSTITUTIONS IN THE REGION</td>
<td>32</td>
</tr>
<tr>
<td>IV</td>
<td>SEVEN FLAGSHIP UNIVERSITIES</td>
<td>42</td>
</tr>
<tr>
<td>V</td>
<td>TEN OTHER LARGE STATE UNIVERSITIES, MOSTLY URBAN</td>
<td>50</td>
</tr>
<tr>
<td>VI</td>
<td>TWENTY-FIVE UNIVERSITIES HAVING NORMAL SCHOOL ORIGINS</td>
<td>60</td>
</tr>
<tr>
<td>VII</td>
<td>TWENTY-THREE OTHER STATE UNIVERSITIES AND COLLEGES</td>
<td>69</td>
</tr>
<tr>
<td>VIII</td>
<td>THE TWO-YEAR COLLEGES</td>
<td>75</td>
</tr>
<tr>
<td>IX</td>
<td>GRADUATE, DOCTORAL AND POSTDOCTORAL LEARNING</td>
<td>93</td>
</tr>
<tr>
<td>X</td>
<td>THE STATEWIDE GOVERNANCE STRUCTURES</td>
<td>104</td>
</tr>
<tr>
<td>XI</td>
<td>STATEWIDE BOARDS AND THEIR STAFFS</td>
<td>117</td>
</tr>
<tr>
<td>XII</td>
<td>STATE TAX SYSTEMS</td>
<td>127</td>
</tr>
<tr>
<td>XIII</td>
<td>LOSS OF NATIONWIDE PRE-EMINENCE</td>
<td>144</td>
</tr>
<tr>
<td>XIV</td>
<td>RECOMMENDATIONS</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>BRIEF BIBLIOGRAPHY</td>
<td>171</td>
</tr>
</tbody>
</table>
COMPARATIVE STATE TAX SUPPORT OF HIGHER EDUCATION
IN THE EAST NORTH CENTRAL REGION: INDIANA
AND FOUR NEIGHBORING STATES

Topical Contents

SYNOPSIS .............................................. xv

I FIRST COMPARISONS ................................. 1

State Appropriations Per Capita ............... 3
State Appropriations Per $1,000 of Personal Income: 4
Percentages of All Students in Private and
Public Institutions ................................. 5
Net State Tax-Fund Appropriations for All Higher
Education Per Headcount Student ............. 9
Ratio of the Total of All Students in Higher
Education to the Total Population ............ 11
Utilization of Tax Potential in the Five States 12
Summary of Comparisons by Five Simple Measures 14

II PRIORITY OF HIGHER EDUCATION AS A STATE FUNCTION 16

Ratio of Appropriations to State and Local
Tax Revenues ........................................ 17
Other Major Functions of the States ........... 24
K-12 Schooling ........................................ 24
Health Services ....................................... 25
Corrections ............................................. 26
Welfare Services ...................................... 26
State Highway and Other Construction ........ 27
Education Is Forever ................................ 28
The Faith and Good Will of Parents ........... 29
An Upturn in Public Esteem ....................... 30

III THE INSTITUTIONS OF HIGHER EDUCATION
IN THE EAST NORTH CENTRAL STATES ........... 32

Five Categories of Public Universities
and Colleges .......................................... 33
Medical and Health Education .................... 35
Private Universities and Colleges ............. 37

IV SEVEN FLAGSHIP UNIVERSITIES IN FIVE STATES 42

Overall Appropriations Per Headcount Student 45
The Galaxy at the Top ............................. 46
Output of Doctoral Graduates .................... 48
V TEN OTHER LARGE STATE UNIVERSITIES, LARGELY URBAN AND NOT IN THE NORMAL SCHOOL TRADITION .......................... 50

- Municipal Universities Have Disappeared .................. 51
- Southern Illinois University is Different .................. 54
- The Urban State University in Indiana .......................... 54
- In Illinois .............................................. 56
- In Michigan .............................................. 57
- In Ohio ................................................. 57
- In Wisconsin ............................................. 58
- Serving the Cities ......................................... 58

VI THE MULTIPURPOSE STATE UNIVERSITIES OF NORMAL-SCHOOL AND TEACHERS COLLEGE ORIGIN .......................... 60

- This Segment is Important .................................. 62

VII TWENTY-THREE OTHER STATE UNIVERSITIES AND COLLEGES OF LESSER SIZE AND OFTEN OF MORE RECENT ORIGIN .......................... 68

VIII THE TWO-YEAR INSTITUTIONS IN EACH OF THE FIVE STATES ............................................. 75

- Community Colleges in Illinois ............................... 76
- Two-Year Colleges in Indiana .................................. 77
- Two-Year Colleges in Michigan ................................ 78
- Two-Year Colleges in Ohio .................................... 79
- Two-Year Colleges in Wisconsin ................................ 80
- The Two-Year Colleges of the East North Central Region as a Whole ........................................ 83

IX GRADUATE, ADVANCED PROFESSIONAL, AND POSTDOCTORAL LEARNING ............................................. 93

- Original Contributions to Knowledge .......................... 94
- An Example: Key to Improvement of Schooling at All Levels ............................................. 96
- Doctoral Degrees Conferred by Seventeen East North Central State Universities, 1920-1974 .................. 97
- Graduate and Postdoctoral Students, 1980 .................... 99
- Unit Costs of Graduate Instruction ............................ 101
- Away with Defeatism ........................................ 103

X STATEWIDE STRUCTURE OF GOVERNANCE ............................................. 104

- Constitutional Independence in Michigan .................... 105
- Central Governing Board in Wisconsin ........................ 107
- Statewide Coordinating Boards in Illinois, Indiana and Ohio ............................................. 110
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>State Appropriations Per Capita.</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>Appropriations Per $1,000 of Personal Income</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>Total Enrollments and Percentages Public and Private</td>
<td>6</td>
</tr>
<tr>
<td>4.</td>
<td>Appropriations Per Headcount Student</td>
<td>9</td>
</tr>
<tr>
<td>5.</td>
<td>All Students Engaged in Higher Education, as a Percentage of Total Population</td>
<td>12</td>
</tr>
<tr>
<td>6.</td>
<td>Use of State and Local Tax Potential</td>
<td>14</td>
</tr>
<tr>
<td>7.</td>
<td>Rankings of the Five States on Five Yardsticks</td>
<td>15</td>
</tr>
<tr>
<td>8.</td>
<td>Appropriations for Higher Education, 1972, as Percentage of Total State Tax Revenues, and Total State and Local Tax Revenues, 1972, in Thousands of Dollars</td>
<td>20</td>
</tr>
<tr>
<td>10.</td>
<td>Six-Year Change, 1972-1978, in Ratio of Appropriations for Higher Education to Total State Tax Revenues Only</td>
<td>21</td>
</tr>
<tr>
<td>11.</td>
<td>Six-Year Change, 1972-1978, in Ratio of Appropriations for Higher Education to Total State and Local Revenues</td>
<td>21</td>
</tr>
<tr>
<td>12.</td>
<td>East North Central Regional Totals by the Four Categories of State Universities</td>
<td>34</td>
</tr>
<tr>
<td>13.</td>
<td>Totals by States for the Four Categories of State Universities</td>
<td>35</td>
</tr>
<tr>
<td>15.</td>
<td>Another Echelon of Private Universities</td>
<td>40</td>
</tr>
<tr>
<td>16.</td>
<td>Seven Flagship Universities in Five States</td>
<td>44</td>
</tr>
</tbody>
</table>
17. Doctoral Degrees Granted by Seven Flagship Universities, 1920-1974................................. 48
18. Ten Other Large State Universities, Mostly Urban ........... 53
19. Twenty-Four State Universities Having Normal School Antecedents .................. 63
20. Twelve Leading East North Central Multipurpose State Universities of the Former Teachers College Type ...... 64
21. Twenty-Two Other State Universities and Colleges .......... 71
22. Twelve Leading State Universities of the Generally Younger and Smaller Types, Not Having Teachers College Origins.............................................. 74
23. Two-Year Institutions: Number of Institutions and Campuses in Each of Five States................ 85
25. Percentage of Students Enrolled in Two-Year Institutions . 86
26. State Tax-Fund Appropriations for Annual Operating Expenses of Two-Year Colleges in Five States, 1980 .... 86
27. Two-Year Institutions in Five States ............................. 87
28. Two Hundred Two-Year Institutions in Five States .......... 92
29. Number of PhD Degrees Granted by 18 State Universities in Five East North Central States, 1920-1974 (Omitting the seven flagship universities, Section IV) .......... 98
30. Graduate Student Enrollments and Postdoctoral Students, 1980, in 24 State Universities in the East North Central States ...................................................... 100
31. Unit Costs of Instruction in Illinois Public Universities, for Selected Major Disciplines, 1977 ... 102
32. Statewide Boards of Higher Education in the East North Central States ...................... 120
33. Statewide Boards for Higher Education in Four States: Staff Members and Salaries ........ 121
34. Statewide Boards for Higher Education in Four States: Total Budgets for Operating Expenses 121
35. Governing Boards of Multicampus State Universities or "University Systems" Within the East North Central States.................. 125
36. Two System Boards in Illinois.......................... 127
37. Statewide Agencies for Oversight of Two-Year Colleges in the East North Central States.............. 127
38. Total State Taxes Per Capita............................ 130
39. Individual Income Taxes Collected, 1978, Compared with the Quinquennial Standard Collectible If Levied at Average Rate........... 132
40. Corporate Income Taxes Collected, 1978, Compared with the Quinquennial Standard Collectible If Levied at Average Rate........... 134
41. State Tax Collections, 1978............................. 136
42. Individual and Corporate Income Tax Rates................ 137
43. State and Local Taxes Per Capita as Percentage of Personal Income.......................... 140
44. Taxes By All Levels of Government in the United States Compared with 18 Other Developed Nations of the Western World, 1976.......... 143
LIST OF MAPS

<table>
<thead>
<tr>
<th>Map</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seventeen Large State Universities</td>
<td>49a</td>
</tr>
<tr>
<td><strong>INDIANA.</strong> Twelve Campuses of State Universities</td>
<td>54a</td>
</tr>
<tr>
<td><strong>ILLINOIS.</strong> Thirteen Campuses of State Universities</td>
<td>55a</td>
</tr>
<tr>
<td><strong>MICHIGAN.</strong> Fifteen Campuses of State Universities and Colleges</td>
<td>56a</td>
</tr>
<tr>
<td><strong>OHIO.</strong> Thirteen Campuses of State Universities</td>
<td>57a</td>
</tr>
<tr>
<td><strong>WISCONSIN.</strong> Fourteen Campuses of State Universities</td>
<td>58a</td>
</tr>
<tr>
<td><strong>INDIANA.</strong> Vocational Technical College Regions</td>
<td>77a</td>
</tr>
<tr>
<td>The Ten-year Gains in Fifty States</td>
<td>148</td>
</tr>
<tr>
<td><strong>ILLINOIS.</strong> Community College Districts</td>
<td>159a</td>
</tr>
</tbody>
</table>
COMPARATIVE STATE TAX SUPPORT OF HIGHER EDUCATION
IN THE EAST NORTH CENTRAL REGION: INDIANA
AND FOUR NEIGHBORING STATES

Synopsis

One of the merits of the federal form of government in the United States is that each of the fifty state constitutions makes the state legislature the residual receptacle of power in matters within the jurisdiction of the state. While the state governments may casually seem to be much alike, there is immense diversity. This provides opportunity for observation and comparison of different policies and practices.

Rankings and Priorities

Applying a few statistical measures to the current state tax support of higher education in the five East North Central states produces consistent showings of the standing of each state among the five, and also its ranking among the fifty states of the entire nation.

On a majority of the scales, the ranking of the five states among themselves is: first, Wisconsin; second, Michigan; third, Illinois; fourth, Indiana; fifth, Ohio.

These standings turned up consistently, with some exceptions explainable by unique features of the statewide systems of higher education, in tables of (1) appropriations per capita of state tax funds for annual operating expenses of all higher education, (2) use of the state tax potential based on average rates of each major type of tax, and (3) the ratio of combined state and local taxes collected to personal incomes.
On the third test just mentioned, Wisconsin comes out with state and local taxes collected being 13.7 percent of personal incomes. This ranks ninth among the fifty states and first among the five. Michigan, at 12.4 percent, is eighteenth among the fifty and second among the five. Illinois, at 11.2, is thirty-third in the nation and third in the region. Indiana and Ohio, both at 9.8 percent, vie for forty-ninth and fiftieth places in the nation and fourth and fifth in the region. The average among the fifty states is 12 percent.

The spread among the fifty states. Among the various tests, Wisconsin is often first among the five and in or near the top quartile among the fifty states. Michigan is often second among five and very near the median of the national scale. Illinois is usually third in the region and almost always below the median nationally. Indiana is generally fourth, with Ohio trailing as a poor fifth. Both are often low nationally.

Appropriations per capita for annual operating expenses of all higher education provide a beginning simple clue to the relative adequacy of the state's support. As of recently available statistics, these figures appear to be $100.15 in Wisconsin, $87.97 in Michigan, $78.00 in Illinois, $76.52 in Indiana, and $62.26 in Ohio. On the same scale, the national average is 87.48. The five states, in the order named, rank respectively among the fifty states as seventeenth, twenty-fourth, thirty-third, thirty-sixth, and forty-fifth.

The average direct state tax cost of all higher education in Ohio for each man, woman and child in the state was $62.26; and $100.15 in Wisconsin, with Indiana, Illinois and Michigan ranging between. Michigan
was practically at the national average; Illinois, Indiana and Ohio substantially below it.

Appropriations per $1,000 of personal income. On this yardstick the five states arrange themselves in similar order. State tax dollars appropriated per one thousand dollars of personal income are in Wisconsin, 13.30; in Michigan, 10.37; in Indiana, 9.93; in Illinois, 8.76; in Ohio, 7.93.

The rankings of the five states among the fifty are: Wisconsin, sixteenth; Michigan, thirty-fifth; Indiana, thirty-seventh; Illinois, forty-second; Ohio, forty-sixth. Two differences are evident from their standings on the preceding scale of appropriations per capita: Indiana displaces Illinois in third place among the five states, and Illinois descends to what was Indiana's fourth place. On the scale of fifty states, Wisconsin rises from seventeenth place to sixteenth, but all four of the other states take lower places than before. In fact, all four are below the national average, with Wisconsin only barely above it.

Enrollments and percentages public and private. Early in any comparison of states it is necessary to note what percentage of all students is enrolled in public vis-a-vis private institutions of higher education. Private colleges in most states get relatively little state tax support other than exemption from property taxes and indirect support through state scholarship systems which are generally regulated so that about three-fourths of the money involved winds up in private college coffers. A few are exclusively for students in private colleges. A wide disparity among the states in proportionate enrollments in public and
private colleges would tend to invalidate the kinds of comparisons inspected in the foregoing paragraphs.

Fortunately this is not a dominating factor in the East North Central states. The percentage of all students in public institutions is close to the national average in all five. It ranges from 76 percent in Indiana to 87 in Michigan and Wisconsin, with Illinois at 77 and Ohio at 78, which is the national average. The differences may be regarded as marginal and not of sufficient magnitude to necessitate a diversion from the concept of statewide higher education as a whole.

Appropriations per headcount student. Adhering to the whole-state concept, one finds that the macro-statistic derived by dividing total headcount enrollment into total appropriations of state tax funds for annual operating expenses varies from $1423 annually in Illinois to $1921 in Wisconsin, with Indiana at $1827, Michigan at $1678, and Ohio at $1478.

The relatively high place of Indiana may be partly explained by the fact that among the five states Indiana has the smallest percentage of its total population engaged as students in higher education (4.167 percent), and the smallest percentage of its students enrolled in two-year institutions (11.1 percent), and with only a negligible percentage of these latter in colleges receiving any local tax support for operating expenses.

On the other hand, the relatively low position of Illinois may be in part due to the fact that it has 53.5 percent of all its students in two-year colleges which get nearly half of their annual tax support not
from state appropriations, but from local taxing subdivisions. Somewhat similar facts may account for Michigan's descent to third place in the ranking of the five states according to overall state tax-fund appropriations per headcount student.

**Ratio of all students to total population** varies from 4.2 percent in Indiana to 5.5 percent in Illinois. In Ohio it is 4.2; in Wisconsin 5.2; in Michigan 5.2. The national weighted average is 5.1; the weighted average for the five East North Central states is 4.9 percent.

Indiana has 14 percent more people than Wisconsin, but 8 percent fewer students in higher education. Illinois has 5 percent more people than Ohio, but 36 percent more students.

These are significant indicators of how higher education (and in fact all education) is progressing in the respective states.

**Comparative use of state and local tax potential.** Against the hypothetical standard of levying each of the principal state and local taxes at the current average rate for that type of tax, only Wisconsin is found to be exceeding that potential, and only by a small margin. Wisconsin in 1978 had total state and local revenue collections 109.3 percent of that standard. The other four states were short of it: Michigan reached 96.7 percent; Illinois 90.0; Indiana 78.3; Ohio 75.5—only three-fourths of the revenue that could be had by levying taxes at average current rates.

These figures were developed by Professor Kenneth E. Quindry of the College of Business Administration at the University of Tennessee, who has studied and reported on the subject for many years. He is
senior author of State and Local Tax Performance, 1978, published in 1980 by the Southern Regional Education Board, 130 Sixth Street, N.W., Atlanta, GA 30313 (147 pp.).

Priority of higher education among state services. Practical politicians and others often view the state bureaucracy as a dozen or more major departments plus scores of minor agencies, all fighting tooth-and-nail for larger appropriations from the legislature to support their annual operating expenses. Hence there is much argument as to the priority ratings each deserves.

A partial clue to the status quo is the percentage of total tax collections appropriated to each service. Matching state tax collections (not state and local combined), with state appropriations for all higher education, it turns out that Indiana and Ohio are at the top of the list, with 14.36 percent and 13.03 percent of state tax collections going to higher education; with the other three states following: Wisconsin, 12.93; Illinois, 12.82; Michigan, 11.96. The national average is 13.42 percent. This may be explained in large part by the fact that Indiana and Ohio have conspicuously the least productive state revenue systems in the region (Section XII, pages 128-143), combined with good midwestern respect for the value of higher education.

Expanded and improved higher education is the key to better schooling at all levels from preschool through postdoctoral studies; to the upgrading of the national way of life, cultural and vocational; to increasing productivity in agriculture and industry; to technological advances and ethical inspirations now only dimly dreamed of.
Recognition of these potentials will raise the priority rating of universal higher education. (Section II, pages 27-34.)

The Panorama of the Institutions

It would be rash to rely on statewide macro-statistics alone without at least a sketchy examination of the anatomy and operation of the some 265 institutions of public higher education in the region. The campus as an academic community of students and teachers is the crucial operating unit, whether it is "free-standing" or is administratively tied to a multi-campus university or to some other type of consolidated system of governance or coordination.

Convenient categories of the campuses are treated separately in the five sections of the discourse which follow.

The seven flagship state universities: two each in Indiana and Michigan, and one each in Illinois, Ohio, and Wisconsin, have obvious pre-eminence, statewide, nationwide, and internationally. Not only is the region one of the most fertile agricultural spots on the globe; it is also rich in this cluster among the world's greatest state universities.

One of the foremost imperatives for the immediate and continuing future is that these topmost universities of the region be given the earned esteem of the people of these states, and enabled to carry forward their ongoing advancement of the uppermost reaches of instruction, research, and public service.

Ten other large state universities, mostly urban, are indispensable allies in the trend toward higher educational opportunities and
choices for all Americans. These, too, tend to become comprehensive and cosmopolitan, leavening in multiple ways the life of their respective habitats.

They open up vistas of improvement in one or more large metropolitan environments in each state; of the increasing complexity of the economy and of the society; of redoubled needs for technological know-how; for skills in the social sciences; for growing sensitivity to ethics; for solicitude for personal integrity—all of which are fostered on university campuses.

Multi-purpose state universities having normal school antecedents. Each of the five states has its complement of medium-echelon multi-purpose state universities developed from former normal schools since World War Two (with a few exceptions). There are twenty-five of them, ranging in enrollment from 2,500 to near 25,000. Half of them range from 15,000 upward. Some had long histories before emerging from the normal school chrysalis. All have made important contributions to the advancement of education at all levels, in both of their successive incarnations.

Several now offer doctoral degrees in some departments. The leading former normal schools and teachers colleges are now not only respectable and popular state universities, but have expansive futures of broadening service. The name of normal school has disappeared from the dictionary and vanished from the map.

Other state universities and colleges, mostly of more recent establishment and at somewhat earlier stages of development, form another species of "growing edge." They number 23—nearly equal to the number of
former normal schools and teachers colleges—but they are a more diverse group, in general somewhat younger and smaller.

They are accredited, permanently established, performing their missions well, and alert to improve. Hardly a handful carry the name "state college," nearly all having been renamed "state University" after merit ing the change. Here, as in other parts of the country, the tri-partite or three-segment styling of the public sector of higher education has virtually been compressed into two segments: (1) universities, and (2) two-year colleges. For example, that is also the case in Florida, the eighth most populous state, as well as in Wyoming, the least populous state.

Two hundred two-year colleges in the region. Both Illinois and Michigan have nearly inclusive networks of local public state-aided comprehensive community colleges.

Ohio has only a few of these, with larger numbers of two-year university branch campuses on the one hand and, on the other, technical institutes limited exclusively to occupational programs.

Wisconsin has some fourteen two-year university branches, now known as the system of university centers, coexisting with more than twice that number of Vocational-Technical and Adult Schools, of which only a few of the older and larger as yet offer additional studies acceptable for transfer of credits to universities.

Indiana has the unique 180-year-old Vincennes University, which is now actually a local public state-aided community college—the only one in the state. Of more recent origin is a system of thirteen
vocational technical institutes organized under a statewide public corporation known as the Indiana Vocational-Technical College (Ivy Tech). Two of the regional campuses of Indiana University and Purdue University (at Richmond, Indiana University East; and at Westville, Purdue University North Central) have not yet "grown up" to four- and five-year degree-granting status.

The merits of the comprehensive community college, offering liberal and vocational instruction, include "open door" admissions, low fees (in California, no tuition fees), the opportunity to choose either liberal or vocational studies or both, within commuting distance from every citizen's home insofar as practicable, permitting students to live at home and avoid the expense of travel and separate maintenance.

Such a college is of optimum benefit to students who would not otherwise be able to attend any college; but it also attracts many local people of financial means and of above-average intellectual capacity and educational backgrounds.

Graduate, graduate professional, doctoral, and postdoctoral learning. It is appropriate that the work of the university graduate schools be discussed immediately following the discourse on the two-year colleges, because when the inevitable next spurt of expansion and development in all higher education occurs, these two will be the most rapidly growing elements.

Doctoral and postdoctoral education could be called the capstone, implying a solid terminality; but the better metaphor is the spear-point, implying sharpness and forward movement into new realms of knowledge,
dispelling ignorance, prejudice, superstition and myth along the way. The graduate schools are the ultimate elevators of the quality of teachers for all schooling at all levels, as well as leaders in science, technology, business administration, and a hundred other professions and occupations.

Some types of pre-doctoral instruction and research are provided at a cost to the university of as much as ten times the unit cost of instructing undergraduates; but the long-term gains to the state and to the whole society are more than worth the tax cost, which is often fully recouped in the form of additional income taxes paid by the graduate on increased income earned over a long working lifetime.

Statewide Structures of Governance or Coordination

In the Michigan state constitution is the historic principle of constitutional autonomy, under which the Regents of the University of Michigan are a "fourth coordinate arm of the state," having exclusive control of the academic and fiscal affairs of the University. This principle was first placed in the constitution of 1850, which was amended in 1911 and 1959 to give similar independence to the Trustees of Michigan State University and the Governors of Wayne State University.

In the wholly new constitution of 1963 it was reaffirmed and extended to all governing boards of state universities or colleges then existing and such others as might be established in the future. Many times over more than a century it has been sustained by the Michigan supreme court. It is not unique to Michigan, but also is in the constitutions of a dozen other states, prominent among which are Minnesota and
California, each having one of the most renowned state universities in the nation.

Among the East North Central states, only four—Wisconsin, Illinois, Indiana, and Ohio—have statewide governing or coordinating boards for higher education.

Wisconsin's statewide governing board. In 1973 a legislative act for the reorganization of public higher education in Wisconsin took effect, placing all state universities and university centers (the latter are two-year branch campuses formerly known as extension centers) under the direct authority of one statewide board—the Regents of the University of Wisconsin System—with full powers of governance.

This board supplanted the former Regents of the University of Wisconsin (governing the institution at Madison and its system of extension centers and its branch campus at Milwaukee); the former Regents of the State Universities (formerly the Normal School Board); and a statewide coordinating board with limited powers, which had functioned for about a dozen years.

The years following the consolidation of 1973 were difficult ones for several reasons: the shock of such a massive reorganization, considerable harassment and repressive tactics by a wrong-headed governor of the state, and others.

Wisconsin and Michigan are at opposite poles in the matter of state-level structure. Michigan has neither a statewide governing board nor a coordinating board with any duty other than advisory; while Wisconsin is an example of the most completely centralized governance of higher
education to be found anywhere. One exception: Wisconsin's historic system of Vocational-Technical and Adult Schools is not under control of the Regents of the University of Wisconsin System, but continues under the oversight of the State Board for Vocational Education.

**Coordinating boards in Illinois, Ohio, and Indiana.** None of these three states has a consolidated statewide governing board. Each has a coordinating board with limited powers, in general including review of institutional budget requests (with power only to recommend); approval or disapproval of plans for new colleges, schools, or degree programs (subject to the authority of the legislature).

Sometimes these boards are charged ad hoc by the legislature with monitoring both the academic and business management of all the institutions, and with inventing and implementing supposedly beneficial changes in any and all institutional management processes. This is usurpation of the duties of institutional governing boards. Moreover, it is virtually impossible of accomplishment in a populous state without the addition of a numerous and well-paid staff equipped with generous travel allowances for the purpose. This is usually not provided for, with the result that the legislative bark is much worse than its bite.

**The coordinating boards and their staffs.** Looking at the three statewide coordinating boards, it appears that the total staff is 15 persons in Indiana, 45 in Illinois, and 64 in Ohio; with total salaries aggregating $429,000, $1,035,000, and $1,514,000. Overall total operating expenses of the boards in these three states are respectively $788,000, $1,441,000, and $2,404,000;—amounting to approximately 0.2
percent, 0.2 percent, and 0.4 percent of the total state appropriation for operating expenses of all higher education. The salaries of the chief executive officer of the coordinating board staff in each state are clustered closely around $65,000 a year. Roughly two-thirds, one-half, and one-third of the staff are reported as receiving salaries of $20,000 or more.

State Tax Systems.

On the basis of state and local taxes collected per capita for the year 1978 as a percentage of personal incomes, Wisconsin shows 13.7 percent, Michigan 12.4, Illinois 11.2, Indiana 9.8, and Ohio 9.8. When ranked among the fifty states on that basis, Wisconsin is ninth, Michigan eighteenth, Illinois thirty-third, Indiana forty-ninth, and Ohio fiftieth. The ranks of the five states among themselves alone are obviously the same as disclosed in several other tests and reported in the early paragraphs of this synopsis.

State income taxes in the five states. Confining attention here, for the sake of brevity, to personal income taxes: three of the states levy only flat rates—Indiana 1.9 percent, Illinois 2.5 percent, and Michigan 4.6 percent. Ohio's graduated levy of 0.5 to 3.5 percent seems ridiculously low. Wisconsin's graduated tax of 3.5 percent to 10 percent appears better from the standpoints of equity and productivity.

All state tax systems are complicated. They are often quickly and intimately affected by changes in economic conditions. Most types of taxes tend to be regressive—to bear more heavily upon low and middle-income taxpayers than upon the well-to-do. Continuous observation of all
these matters is essential.

The Gains Over Two Decades

Records of state tax-fund appropriations for annual operating expenses of all higher education in each of the fifty states, circulated annually for the past twenty years by the National Association of State Universities and Land-Grant Colleges, provide a source for calculating and comparing the ten-year percentages of gain for the decades 1960-1970 and 1970-80.

Briefly, the record shows that for the decade of the 1960s the ten-year rates of gain were: Ohio 453 percent, Illinois 348 percent, Wisconsin 338, Indiana 239, Michigan 219. This gave the five states the following standings among fifty states on this scale: Ohio twelfth, Illinois twenty-first, Wisconsin twenty-third, Indiana thirty-third, and Michigan thirty-seventh.

Now for the 1970s the ten-year percentages of gain were respectively 179, 116, 183, 166, and 165—all conspicuously lower than in the preceding decade, as would be expected; and all were well below the median among the fifty states. But this is not the main point, which is that the East North Central states rankings among the fifty states on this scale show indisputably that these five states lost momentum and lost some of their former pre-eminence to other states, as far as rates of gain in state tax support of higher education were concerned.

A vernacular interpretation is that the Sun Belt states in general gained faster than the Frost Belt states, especially those in the north-eastern quadrant of the nation.
Condensed Recommendations

The foremost imperative for all concerned with higher education (and this is everybody) is to cast off the mood of gloom and projection of disaster that characterized the whole of the 1970s. The period of temporary economic uncertainty will not continue forever. Instead of hysterically crying "Wolf!" the call is to take a thoughtful and positive attitude, to resume the reasonable optimism that has always been the essence of American life.

The shortcomings of the present and of the past can be overcome or minimized, but not by a mood of despair or cynicism.

Appraise the achievements of past years fairly and recognize that they are no final summit, but only a good beginning for further advances. The pendulum swings upward, eventually if not immediately.

Regarding the two-year colleges. Each state that does not have a well-established statewide network of local public comprehensive community colleges should consider the necessary steps to accomplish that result; not hastily and by some mandated drastic reorganization, or the abolition or consolidation of any existing institutions, but by formulating and enacting a policy of the state, under which within perhaps three to ten years a solid beginning can be made toward blanketing the state with such a network in such manner that insofar as practicable a comprehensive community college will be within twenty miles from the home of every resident of the state.

This is the means by which opportunities and choices for liberal, general, vocational and technical schooling for two years beyond the high
school can become within the reach of all. It is the broad base of the pyramid of higher education. Without it, millions of people will continue unable to attend any college at all.

This recommendation applies to all of the East North Central states, but especially to Indiana, Ohio, and Wisconsin, each of which has only few two-year colleges performing the functions of the comprehensive community college; and each of which has a considerable number of public two-year institutions without any programs other than the strictly vocational or technical; and each of which has lesser or greater numbers of university branch campuses offering only college parallel studies of duration of two years but less than the baccalaureate.

None of these varied types of institutions should be dismantled; but ultimately means should be found to convert them gradually to two-year comprehensive community colleges (unless the future demand proves sufficiently strong to bring them up to the baccalaureate level). The goal is a statewide system of basic colleges wherein all students will form a local academic community on the same campus, with choice of studies, insofar as practicable, including liberal or vocational or both; not a system of fractionated schools, some exclusively vocational and others exclusively liberal, with the unavoidable implication of social class divisiveness because they are separate and segregated, each offering only closely restricted choices, resulting in a great deal of limitation of opportunity for all students in the state.

Michigan and Illinois exemplify the statewide network of comprehensive local public community colleges. Both merit being regarded as
models in that respect. Both will need to take measures to improve the accessibility of their community colleges to more residents of the state; and to update their systems to keep abreast of economic and social changes in future decades.

Accessibility, freedom of choice, and breadth of opportunity translate into economic and social gains for the states and the nation.
I

FIRST COMPARISONS

In their tax support of higher education proportionate to their population, their aggregate of personal incomes, and three other simple measures, the five East North Central states can be ranked in descending order: one, Wisconsin; two, Michigan; three, Illinois; four, Indiana; five, Ohio.
I

FIRST COMPARISONS

Comparisons are odious. This is because they must usually be in part subjective or judgmental, and may become prejudiced by the observer's blind spots. Except for the simple weighing or measuring of commodities on standard scales, and the fixing of monetary values in terms of currencies and credit, there is little else in human experience that can be quantified with any close approach to exact precision.

Progress goes on in the science of statistics, but the stage has not been reached wherein all available figures, manipulated in all conceivable ways, can be guaranteed to produce "the truth, the whole truth, and nothing but the truth." All numerical appraisals contain disputable elements. For practical purposes they are often useful, but their reliability ought not to be exaggerated. They ought to be arrived at with care and interpreted with restraint not to overstate, understate, or misconstrue their meaning.

The five states: Indiana, Ohio, Michigan, Illinois and Wisconsin, all have records of a century or more of state support of universities and colleges. Is it possible to detect substantial differences among them as to the relative adequacy of their support of higher education? A similar question is "How does Indiana fare among the four East North Central states surrounding it?"
State Appropriations Per Capita

The simplest clue comes from discovery of the ratio between each state's total population and its total appropriation of net state tax funds for annual operating expenses of higher education for the current fiscal year.

This discloses that the sums appropriated per capita vary from $62.26 in Ohio to $100.15 in Wisconsin. This measure ranks the five states in the following descending order: Wisconsin, Michigan, Illinois, Indiana, and Ohio. The figures are exhibited in Table 1.

<table>
<thead>
<tr>
<th>States</th>
<th>Dollars per capita</th>
<th>Rank among 50</th>
<th>Rank among 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>WI</td>
<td>100.15</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>MI</td>
<td>87.97</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>IL</td>
<td>78.00</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>IN</td>
<td>76.52</td>
<td>4</td>
<td>36</td>
</tr>
<tr>
<td>OH</td>
<td>62.26</td>
<td>5</td>
<td>45</td>
</tr>
<tr>
<td>Fifty-state average</td>
<td>87.48</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Chronicle of Higher Education, October 9, 1979, p. 9.
The same tabulation also reveals that the five states, when placed on a scale of all fifty states by the same measure, continue in the same order, but range among the fifty states from forty-fifth place to seventeenth place, with only Wisconsin somewhat above the median, Michigan practically at the median, and the other three states at varying distances below the median. Ohio, for example, appropriates less per capita than any of forty-four other states. Indiana appropriates less per capita than any of thirty-five other states.

**State Tax-Fund Appropriations Per $1,000 of Personal Income**

Another indicator of the relative positions of the states in state tax-fund support of higher education is appropriations per $1,000 of personal income. This tends to measure support alongside ability to pay taxes, for income is today's best single yardstick of taxing capacity.

For the year 1980 the five East North Central States distributed themselves on that scale as in Table 2.

On this scale, our five states range from sixteenth to forty-seventh place among the fifty states. Four of them are well below the median, nationally. Indiana is 37th among the fifty, and third among the five.
Table 2. Appropriations per $1,000 of Personal Income

<table>
<thead>
<tr>
<th>States</th>
<th>Dollars per $1,000 of personal income</th>
<th>Rank among 50 states</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wisconsin</td>
<td>13.30</td>
<td>16</td>
</tr>
<tr>
<td>Michigan</td>
<td>10.37</td>
<td>35</td>
</tr>
<tr>
<td>Indiana</td>
<td>9.93</td>
<td>37</td>
</tr>
<tr>
<td>Illinois</td>
<td>8.76</td>
<td>42</td>
</tr>
<tr>
<td>Ohio</td>
<td>7.93</td>
<td>46</td>
</tr>
<tr>
<td>Fifty-state average</td>
<td>11.16</td>
<td></td>
</tr>
</tbody>
</table>

Source: Chronicle of Higher Education, October 9, 1979, p. 9.

Percentages of All Students in Private and Public Institutions

One factor which obviously affects the foregoing yardsticks is the percentages of all students in higher education enrolled in private institutions and public institutions in each state. This is not as influential as sometimes imagined, because large private universities usually draw large proportions of their students from other states and other countries in the world, and regard residence in the state of their location as more or less irrelevant. Data on the ratio between private and public enrollments are in order at this point.
In Fall 1978, of nearly eleven and one-half million students in colleges and universities in the United States, 22 percent were reported as in private institutions, and 78 percent in public.

Prior to 1930, a majority of all students were always in private colleges. Between 1930 and 1950, the ratio was generally about 50-50, fluctuating only slightly. Since 1950, the percentage enrolled in the private sector has steadily declined. The absolute total, however, in private institutions has continued to grow, but at a rate markedly slower than that in the public sector. Today the private sector has more students than it ever had, but the public sector outnumbers it four to one.

None of the East North Central states varies far from the national average in this respect.

Table 3. Percentages of Total Enrollments Public and Private

<table>
<thead>
<tr>
<th>States</th>
<th>Public %</th>
<th>Private %</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Indiana</td>
<td>76</td>
<td>24</td>
</tr>
<tr>
<td>Illinois</td>
<td>77</td>
<td>23</td>
</tr>
<tr>
<td>Michigan</td>
<td>87</td>
<td>13</td>
</tr>
<tr>
<td>Ohio</td>
<td>78</td>
<td>22</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>87</td>
<td>13</td>
</tr>
<tr>
<td>United States</td>
<td>78</td>
<td>22</td>
</tr>
</tbody>
</table>

As exhibited in Table 3, the variations among the East North Central states are not wide. The nationwide average percentage of all students in public institutions is 78. The extreme range among the fifty states is from 44 percent in Massachusetts to 100 percent in Wyoming (where there are no private institutions). Among our five states, Ohio is at the national average (78), and the percentage in Indiana is 76 and in Illinois is 77. In the other two states it is: Michigan, 87; and Wisconsin, 87. The range among all five is only 11 percentage points, 76 to 87, closely clustered at and slightly above the national average.

Moreover, in Illinois and Ohio, this is partially offset by the fact that there are annual direct appropriations of state tax funds to some private universities and colleges (and these are a part of the picture of state tax support of all higher education, and are included in our appropriation figures).

Illinois currently subsidizes all reputable private colleges at the annual rate of $112.50 for each freshman and sophomore in the previous academic year, and $225 for each junior and senior. In fiscal 1981 this amounts to nearly $10 million. There is also a system of Health Education grants which go exclusively to private colleges, for a total of nearly $16 million; also there is a Higher Education Cooperation Act program of grants for which nearly $2 million is appropriated, going to selected private and public institutions for consortial work, probably half or more of which goes to private colleges. All together Illinois currently appropriates approximately $27 million annually for direct support of private institutions.
To this could be added the indirect subsidy to all institutions of higher education in Illinois in the form of state scholarships awarded annually by the Illinois State Scholarship Commission, currently amounting to an appropriation of $72 million, of which about two-thirds goes to students in private colleges; but this is not precisely pertinent at this point because all five states have systems of tax-paid student aids, more or less comparable.

Ohio currently subsidizes the private Case-Western Reserve University Medical Center in Cleveland, for medicine and dentistry, at an annual rate of $6,217,000 for fiscal 1980, raised to $6,697,000 for fiscal 1981.

The point being made here about direct state subsidies in Illinois and Ohio is that these two states offset this condition somewhat by making direct tax-paid subsidies to some private colleges. Thus the variations among the five states as to the percentages of their students in public and private colleges become a little less significant as far as these two states are concerned. The five states are clustered so closely that the variations are practically negligible as bearing on the several other bases of comparison used in this section.

It might be unrealistic and "unfair" and erroneous to apply these same bases of comparison to Massachusetts, with 44 percent of its students in public universities and colleges, and Wyoming, with 100 percent, but among the five East North Central states the differences in that respect are not substantial enough to make very appreciable difference in the results, or to change the rankings as derived from the other bases of comparison.
Net State Tax-Fund Appropriations for All Higher Education Per Headcount Student

By a species of macro-calculation, one can divide the total of all students enrolled in all higher education in a state into the total of all state tax-fund appropriations for annual operating expenses of all higher education in that state.

### Table 4. Appropriations Per Headcount Student

<table>
<thead>
<tr>
<th>States</th>
<th>Total Fiscal 1980 Appropriations (2)</th>
<th>Total headcount students (3)</th>
<th>Per headcount student (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WI</td>
<td>$468,618,000</td>
<td>243,876</td>
<td>$1921</td>
</tr>
<tr>
<td>IN</td>
<td>$411,198,000</td>
<td>224,992</td>
<td>$1827</td>
</tr>
<tr>
<td>MI</td>
<td>$808,320,000</td>
<td>494,048</td>
<td>$1636</td>
</tr>
<tr>
<td>OH</td>
<td>$669,197,000</td>
<td>452,754</td>
<td>$1478</td>
</tr>
<tr>
<td>IL</td>
<td>$876,951,000</td>
<td>616,209</td>
<td>$1423</td>
</tr>
<tr>
<td>5-states</td>
<td>3,234,284,000</td>
<td>2,031,879</td>
<td>$1592</td>
</tr>
<tr>
<td>U.S.</td>
<td>19,075,829,000</td>
<td>11,354,756</td>
<td>$1680</td>
</tr>
</tbody>
</table>

This produces a dollar figure representing the amount appropriated per headcount student in all types of state tax-supported higher education. This turns out to range from $1,423 in Illinois to $1,921 in Wisconsin, with Indiana at $1,827, Michigan at $1,678, and Ohio at $1,478. The figure for the composite fifty states is $1,680. This puts Michigan very close to the national weighted average, with Indiana and Wisconsin well above and Ohio and Illinois well below.
The figures can be taken literally only to a limited extent, because they are macro-figures embracing all types and levels of higher educational institutions, and take no account of the fact that actual cost-per-student may vary widely, depending on the level and type of instruction. Thus a state having an above-average number of students in the two-year institutions might show a macro-figure of appropriation per headcount student such as to give it a low over-all ranking for the whole statewide system.

It is only necessary to remember that column 4 of Table 4 is not based on cost studies, but is on a much higher level of generality.

The order of rank among the five states is not quite consistent with what it is in appropriations per capita (Table 1) and in appropriations per $1,000 of personal income (Table 2), chiefly because Indiana rises to second place, Michigan drops to third, and Illinois drops to fifth, allowing Ohio to rise to fourth. Nevertheless, the order of rank indicated in Tables 1 and 2 is, to a considerable extent, reinforced, with Wisconsin continuing as Number One, and the order of the other four states not drastically changed except that Illinois descends from its usual third place to fifth. These variations may be explained by the numbers and distribution of different segments and types of institutions of higher education and their respective headcount enrollments. For example, Illinois has 53 percent of its students in local public community colleges, where only 37 percent of annual operating expenses are state-paid.
Ratio of the Total of All Students in Higher Education to the Total Population

Comparing total college and university enrollments with the total population of the state is an increasingly useful tactic, because increasingly the enterprise of higher education is peopled by part-timers. Already half of all students in the United States attend part-time; it makes less and less sense to speak exclusively of full-time students, part-time students, and the fictional "full-time equivalents"—the "F. T. E." beloved of meticulous accountants and auditors. The term defies precise definition and can never be reduced to exact comparability unless by exclusive resort to accounting of credit-hours, which takes no notice of the human element in higher education.

The ratio between the total number of persons engaged as students in higher education to the state's total population at a given time is an increasingly useful indicator of the level of civilization or the "quality of life," if you will.

Illinois, with 616,209 students, has roughly 30 percent of all students in the entire region. The ratio of students to entire population in Illinois is nearly 5.5 percent—higher than in any of the other four states in the region.

Indiana, with 225,000 students, has fewer than any other state in the region, putting it in fifth place as to the ratio of students to population. Contrast it with Wisconsin, which has 244,000 students in a total population of 4,720,000, while Indiana's total population is 5,400,000.

Wisconsin is near the national average (slightly above it); Illinois and Michigan, above it; Ohio and Indiana, well below it.
Table 5. All Students Engaged in Higher Education, as a Percentage of Total Population

<table>
<thead>
<tr>
<th>States</th>
<th>Total Population (1)</th>
<th>Total Enrollment (2)</th>
<th>All students as percent of total population (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL</td>
<td>11,230,000</td>
<td>616,209</td>
<td>5.487</td>
</tr>
<tr>
<td>MI</td>
<td>9,208,000</td>
<td>481,767</td>
<td>5.232</td>
</tr>
<tr>
<td>WI</td>
<td>4,720,000</td>
<td>243,876</td>
<td>5.167</td>
</tr>
<tr>
<td>OH</td>
<td>10,731,000</td>
<td>452,754</td>
<td>4.219</td>
</tr>
<tr>
<td>IN</td>
<td>5,400,000</td>
<td>224,992</td>
<td>4.167</td>
</tr>
<tr>
<td>5-states</td>
<td>41,289,000</td>
<td>2,019,598</td>
<td>4.891</td>
</tr>
<tr>
<td>U.S.</td>
<td>220,000,000</td>
<td>11,354,000</td>
<td>5.143</td>
</tr>
</tbody>
</table>

The figures speak nothing but the cold and sterile language of mathematics. Other sections of the report speak of possible reasons for what is, and for what ought to be.

**Utilization of Tax Potential in the Five States**

There are close parallels between state support of higher education and state revenue systems. Accordingly this report includes a separate section on state tax systems. At this point, however, observe that the five East North Central states seem to arrange themselves in a similar order of rankings on a measure of the extent to which they make use of their respective taxing abilities.
Taking the principal sources of state and local tax collections, and the sums collected from each by each state each year, for comparison with hypothetical figures showing for each type of tax what would have been collected for a given year if that type of tax had been levied by each state at a rate equaling the average rate at which it is actually levied in many states, it is possible to determine whether each state is levying that type of tax up to the standard of the average rate among many states.

Taking this standard as the potential for each state, one can readily see whether a state is using its potential 100 percent, or is exceeding its potential in that regard, or is levying only a lesser percentage of its potential as thus measured. Combining these major sources of state and local revenues provides a similar yardstick for the entire state.

A 1980 publication of the Southern Regional Education Board, State and Local Tax Performance, 1978, purports to show that Wisconsin collects state and local taxes equal to 109 percent of its ability by this standard; Michigan, 96.7 percent; Illinois, 90 percent; Indiana, 78.3 percent, and Ohio, only 75.5 percent.

This is the most recent of many publications by Kenneth E. Quindry, a scholar who has studied and developed this subject for many years.

Quindry's technique measures the extent to which each of the fifty states levies taxes as against a standard under which each state would levy each of the principal types of state taxes at rates equal to the average rates now levied in all the states.
Table 6. Use of State and Local Tax Potential

<table>
<thead>
<tr>
<th>State</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>WI</td>
<td>109.3</td>
</tr>
<tr>
<td>MI</td>
<td>96.7</td>
</tr>
<tr>
<td>IL</td>
<td>90.0</td>
</tr>
<tr>
<td>IN</td>
<td>.78:3</td>
</tr>
<tr>
<td>OH</td>
<td>75.5</td>
</tr>
</tbody>
</table>

Source: AASCU Memo to the President, August 7, 1980, p. 5.

Table 6 says that among the five East North Central states, Wisconsin is the only one currently levying state taxes above its potential by that measure. The other four (Michigan, Illinois, Indiana, Ohio) are below their potential for revenue raising, in that order. Ohio currently levies only three-fourths of its potential.

The relative tax capacity of the states, and the degree of its utilization, is treated more fully in a later section on State Revenue Systems (Section XII, pages 129-143).

Summary of Comparisons by Five Simple Measures

The composite rankings derived from all five scales are: Wisconsin, 1.4; Michigan, 2.2; Illinois, 3.2; Indiana, 3.8; Ohio, 4.6. This leaves the five states in the same order of rank as in columns 2 and 6 in Table 7, and as in Tables 1 and 6.
Table 7. Rankings of the Five States on Five Yardsticks

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Appropriations of State Tax Funds</th>
<th>All students</th>
<th>Use of state tax potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per capita (1)</td>
<td>Per $1,000 personal income (2)</td>
<td>Per headcount student (3)</td>
</tr>
<tr>
<td>1</td>
<td>WI</td>
<td>WI</td>
<td>WI</td>
</tr>
<tr>
<td>2</td>
<td>MI</td>
<td>MI</td>
<td>IN</td>
</tr>
<tr>
<td>3</td>
<td>IL</td>
<td>IN</td>
<td>MI</td>
</tr>
<tr>
<td>4</td>
<td>IN</td>
<td>IL</td>
<td>OH</td>
</tr>
<tr>
<td>5</td>
<td>OH</td>
<td>OH</td>
<td>IL</td>
</tr>
</tbody>
</table>

Notice that in the handful of statistical yardsticks used in this brief section, there is a remarkable consistency in the rankings of the five East North Central states: with respect to state tax-fund appropriations per capita for annual operating expenses of higher education, the same appropriations per $1,000 of personal income, and the relative productivity of their state and local tax systems. It appears in general that Wisconsin ranks first, Michigan second, Illinois third, Indiana fourth, and Ohio fifth.

Let no one suppose that a few statistical measures tell the whole story. Nor would a hundred statistical measures which could be made. They provide only a preliminary and tentative "handle" on a large and complex scene, in which it is necessary to look further at five among the best of the nation's state systems of higher education: the institutions they encompass, the major segments of higher education represented, the accessibility of instruction above the high school level to all residents, and many other factors.
II

PRIORITY OF HIGHER EDUCATION AS A STATE FUNCTION

An amendment to the Constitution of California adopted in 1933, in the depths of the Great Depression: (Article XIII, Section 15) "Out of the revenues provided for in this article, and out of all other revenues collected, there shall first be set apart the moneys to be applied by the state to the support of the public schools and the State University."
II

PRIORITY OF HIGHER EDUCATION AS A STATE FUNCTION

One ready clue to the relative emphasis placed on state tax support of all higher education by any particular state is the percentage of total state tax revenues for a given fiscal period which is appropriated for all higher educational operating expenses. Two bases have to be dealt with. One is state taxes levied, collected and disbursed solely for purposes of the state government and its agencies, as distinguished from local governmental subdivisions—counties, cities, townships, villages, school districts, and various other types, including community college districts.

State and local tax revenues are therefore a second concept necessary in the picture. Speaking of the fifty states and of the most recent decade, state taxes and local taxes in many states turn out to be about equal in productiveness. In other words, state and local taxes in a given state are likely to produce roughly twice as much revenue as taxes for state purposes alone.

Ratio of Appropriations to State and Local Tax Revenues

It is desirable to use both concepts to obtain an approximation of the percentages appropriated for all higher education, because although state tax support of public universities and four-year institutions is almost wholly through state taxes (except, for example, comparatively negligible amounts from counties for land-grant universities). Yet in
the case of the two-year institutions, support from local taxing subdivisions may play a much larger role, varying in different states up to half or more of the institutions' annual operating expenses.

In Illinois, where the prevailing type of public two-year institutions is the local public state-aided community college, the total of state funds appropriated for operating expenses of 51 such campuses for fiscal 1981 was $134,364,000; but local tax-levying community college districts provided an approximately equal total from their own local revenues. In contrast, in states where an element of the statewide two-year system consists of two-year branch campuses of parent universities, the practice has been to integrate their budgets into that of the parent institution, so that they get almost all their tax support from the states, but the trend is now toward regarding these networks of two-year institutions as separate systems, whose operating funds are budgeted and appropriated separately from those of the parent campuses, but continue to be tax-supported virtually wholly by the state.

The Michigan network of 28 local public state-aided community colleges is financed in a manner similar to that already sketched for Illinois. In Wisconsin, the system of two-year "university centers" originally developed by the University of Wisconsin at Madison currently gets $13,853,000 from the state; and there is in addition the wholly distinct statewide system of two-year Vocational, Technical, and Adult schools, receiving $55,220,000, performing some of the functions that are performed by comprehensive community colleges in Michigan and Illinois, and under the jurisdiction of the State Board of Vocational, Technical, and Adult Education;—not of the Regents of the statewide
University of Wisconsin system.

Ohio has at least four types of two-year institutions in its statewide system; while Indiana's facilities of this kind are virtually limited to thirteen local vocational-technical schools, all offshoots of the Indiana Vocational-Technical College, a statewide corporation authorized to establish such schools in selected localities, either directly or by contract with existing private schools or otherwise. Indiana has a proportionately small number of students in two-year institutions and a relatively smaller proportion of all students in separate two-year institutions than any of the other four states. (This does not necessarily mean that Indiana has fewer freshmen and sophomores in all colleges and universities, though that may indeed be the fact.)

The foregoing diversities among the five states are only mentioned at this point. They will be examined in a further section (Section VII: The Two-Year Institutions, pages 75-92). The purpose here is merely to justify the introduction of both percentages of state and local taxes collected, as vehicles of comparison among the five states.

The two tabulations (Tables 8 and 9) exhibit no spectacular differences in the ranking among the five states when compared on the basis of percentages of state taxes and of state and local taxes appropriated for annual operating expenses of all higher education. This means that either basis would furnish a fairly satisfactory measure of the relative emphasis given to higher education as a state function in each of the five states. This emphasis seems to vary substantially.
Table 8. Appropriations for Higher Education, 1972, as Percentage of Total State Tax Revenues, and Total State and Local Tax Revenues, 1972, in Thousands of Dollars

<table>
<thead>
<tr>
<th>Five States</th>
<th>State Tax Revenues (1)</th>
<th>Total State and Local Tax Revenues (2)</th>
<th>1972 Appropriations for Higher Education (3)</th>
<th>Col 4 as percentage of Col 2 (4)</th>
<th>Col 4 as percentage of Col 3 (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN</td>
<td>1,187,234</td>
<td>2,374,954</td>
<td>201,345</td>
<td>16.96</td>
<td>8.48</td>
</tr>
<tr>
<td>IL</td>
<td>3,397,844</td>
<td>6,517,564</td>
<td>470,413</td>
<td>13.84</td>
<td>7.22</td>
</tr>
<tr>
<td>MI</td>
<td>3,032,665</td>
<td>5,235,831</td>
<td>379,409</td>
<td>12.51</td>
<td>7.25</td>
</tr>
<tr>
<td>OH</td>
<td>2,189,413</td>
<td>4,632,030</td>
<td>293,677</td>
<td>13.41</td>
<td>6.34</td>
</tr>
<tr>
<td>WI</td>
<td>1,628,043</td>
<td>2,736,154</td>
<td>226,403</td>
<td>13.91</td>
<td>8.27</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Five States</th>
<th>State Tax Revenues (1)</th>
<th>Total State and Local Tax Revenues (2)</th>
<th>1978 Appropriations for Higher Education (3)</th>
<th>Col 4 as percentage of Col 2 (4)</th>
<th>Col 4 as percentage of Col 3 (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN</td>
<td>2,454,685</td>
<td>3,800,485</td>
<td>352,406</td>
<td>14.36</td>
<td>9.27</td>
</tr>
<tr>
<td>IL</td>
<td>5,774,368</td>
<td>10,309,268</td>
<td>740,190</td>
<td>12.82</td>
<td>7.17</td>
</tr>
<tr>
<td>MI</td>
<td>5,520,181</td>
<td>8,885,981</td>
<td>660,404</td>
<td>11.96</td>
<td>7.43</td>
</tr>
<tr>
<td>OH</td>
<td>4,230,607</td>
<td>7,625,707</td>
<td>551,174</td>
<td>13.03</td>
<td>7.23</td>
</tr>
<tr>
<td>WI</td>
<td>3,089,233</td>
<td>4,535,153</td>
<td>399,410</td>
<td>12.93</td>
<td>8.81</td>
</tr>
</tbody>
</table>

Table 10. Six-year Change, 1972-78, in Ratio of Appropriations for Higher Education to Total State Tax Revenues Only

<table>
<thead>
<tr>
<th>States</th>
<th>Appropriations as percentage of state tax revenue only</th>
<th>Change in percentage points</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>IN</td>
<td>16.96</td>
<td>14.36</td>
</tr>
<tr>
<td>IL</td>
<td>13.84</td>
<td>12.82</td>
</tr>
<tr>
<td>MI</td>
<td>12.51</td>
<td>11.96</td>
</tr>
<tr>
<td>OH</td>
<td>13.41</td>
<td>13.03</td>
</tr>
<tr>
<td>WI</td>
<td>13.91</td>
<td>12.93</td>
</tr>
</tbody>
</table>

Table 11. Six-Year Change, 1972-78, in Ratio of Appropriations for Higher Education to Total State and Local Revenues

<table>
<thead>
<tr>
<th>States</th>
<th>Appropriations as percentage of state and local revenue</th>
<th>Change in percentage points</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>IN</td>
<td>8.48</td>
<td>9.27</td>
</tr>
<tr>
<td>IL</td>
<td>7.22</td>
<td>7.17</td>
</tr>
<tr>
<td>MI</td>
<td>7.25</td>
<td>7.43</td>
</tr>
<tr>
<td>OH</td>
<td>6.34</td>
<td>7.23</td>
</tr>
<tr>
<td>WI</td>
<td>8.27</td>
<td>8.81</td>
</tr>
</tbody>
</table>
In 1972 the ratio of state appropriations for operating expenses of higher education to total revenues collected for state purposes ranged from 12.51 percent in Michigan to 16.94 in Indiana, with Wisconsin at second place with 13.91, followed by Illinois at 13.84, and Ohio at 13.41.

The ratio to state and local taxes collected ranged from 6.34 in Ohio to 8.48 in Indiana, with Wisconsin in second place with 8.27, followed by Michigan with 7.25, and Illinois with 7.22. (Table 8)

In 1978, six years later, the figures had changed somewhat, but not drastically, as shown in Table 9. Tables 10 and 11 deal in some detail with the changes over the six-year recent period, and give a notion of increase or decrease of both the ratios in each of the five states.

These figures cannot point to any detailed conclusions until they can be considered in the light of such factors as the size and distribution of the statewide higher educational establishment in each state, and the principal features of each state's revenue system, as well as other influences. The ratios as exhibited here serve merely to indicate that in general the ratio of state tax-fund appropriations to total state taxes for state purposes may be about 13 percent for the five states collectively, and that the ratio to the total of state and local taxes may be about 8 percent; further, that these percentages may be, for four of the five states, somewhat below the national average for the fifty states (Table 9, p. 20).

Here it is perhaps appropriate to show a bit of the short-term history of these measures, 1972-1978, over the "anxious period" of the major part of the 1970s.
Table 10 says if we look at net state appropriations for annual operating expenses of all higher education as a percentage of total state revenues only (excluding local tax collections), we find that in each of the five states the ratio became a little smaller over the six years, and most markedly in Indiana; but the ratio in Indiana continued higher than in any of the other four states.

At first this might seem to confirm the fears of the panicky prophets of doom who shrilly predict that higher education is a loser. But Table 11 says if we look at the ratio to total state and local revenues, the trend was upward in four of the five states (all except Illinois, and there it was downward only by a hair's breadth).

Perhaps the most obvious question raised at this point is "Why does Indiana rank distinctly at the top among the five states as to these ratios while usually ranking in fourth place (and never above second) on the several measures applied in Section I?"

The question can be approached only by noting that Indiana has the smallest number of students in higher education in proportion to its total population (Table 5, Section I, p. 12); and that it may possibly have relatively the least productive state revenue system of any of the five states (though Ohio is certainly a close competitor for that dubious designation).

This latter is dealt with to a limited extent in Section XII (State Tax Systems, pages 129-143). Beyond these features, there are many other influences, including imponderables not susceptible of statistical treatment of any precision. Therefore no statement in this report is to be taken as an ironclad infallible. They are no more than
signboards erected on slender supports set in the squishy ground of the vast quagmire which is our present knowledge of many problems of public policy for which well-substantiated solutions are urgently necessary.

Other Major Functions of the States

There are twenty or more other functions of the fifty states which legislators and governors are obliged to take into account when considering the relative place of higher education.

K-12 Schooling. In pecuniary terms, as well as in numbers of people concerned, the largest of these is public schooling from early childhood through the high school. This domain is commonly known as K-12 education. It is based on local taxing subdivisions in all states except Hawaii, and generally speaking, local taxes supply roughly half of its operating income (varying from state to state). The state governments also supply roughly half, from state revenues.

The consequential distinction economically is that local revenues come almost entirely from property taxes, while state revenues come largely from "broad-based" general and special sales taxes and state income taxes, personal and corporate. Property taxes, especially on real estate, can become confiscatory. They are sometimes very oppressive on farmers and elderly home-owners. The administration of real property taxes is so minutely decentralized in most states, and is subject to such erratic definitions of "market value" and what proportions thereof shall be assessed, as well as other volatile rules on the essentials of assessment, that probably decades will have to elapse before a much greater semblance of uniformity and equity will come into being.
The upshot is that no large increases in revenue from property taxes seem likely in the reasonable future. The result is that as the financial necessities of the K-12 public school districts grow, as they inevitably will, it will be equally imperative that larger proportions of their operating revenues come from state taxes. This is also true of all the local public state-aided comprehensive community-junior college districts, now getting varied fractions of their annual operating funds from locally-levied taxes. (But they are in the domain of higher education, not K-12.)

The promise of improved financing of state and local services rests with more use of broad-based state taxes and with increased federal subsidies to the states, their local subdivisions, and their institutions. Meantime, there should be no adversary lobbying between higher education and K-12, as there has been at some times and places in the past.

This present report has space and time to mention only a few other major state services, each of which could be the subject of comparative cost-benefit studies of vast scope and brain-boggling detail, if such accounting efforts were practicable. This report can be concerned only with a few prima facie remarks:

Health Services. With hospital stays in 1980 generally charged at about $300 per day; with continuing large shortages of registered nurses in practice; and a hundred other shortfalls, health services rapidly continue to become a national disgrace and a national calamity that must be corrected. It is manifest that all levels of higher education can make important contributions here, by producing more and better-educated professional nurses and a score of types of other medical paraprofessionals,
as well as physicians, surgeons, dentists, pharmacists, optometrists, and doctors of veterinary medicine; and above all, more ethical researchers in biological and related sciences capable of reaching levels of expertise not known before.

**Corrections.*** The outstanding fact here is that it is well-known that it costs the taxpayers from two to five times as much to keep a person in prison for a year as it would cost to keep the same person in college. Considering the tendency of reactionary self-righteous "Law-'n'-Order" moralists to insist on the death penalty, to praise vigilante tactics, to advocate the building of more prisons and the keeping of more persons incarcerated for mandatory terms, coupled with the widespread failures of federal and state prisons and local jails either to employ, educate, or rehabilitate their victims, higher education also has a crucial role here. Universities and community colleges are offering college programs in corrections and police science, and many send their own faculty members to teach voluntary students in nearby prisons. This says nothing about what university law schools will eventually accomplish toward gradual rectification of the antiquated, reactionary, and boggling features of our federal, state and local judicial systems, wherein too commonly "justice delayed is justice denied."

**Welfare Services.*** Everyone has humane instincts, and does not enjoy seeing innocent and well-meaning people suffer. Our complicated, multi-plex federal-state welfare system had its beginnings nearly half a century ago. It will never be destroyed, dismantled, or heavily cut back unless we decide to turn down the lights and turn back toward barbarism. The besetting cause of what is too often called a "mess"
has been a lack of clear-cut, wise and devoted non-bureaucratic administration and operation of the system at all levels, enlightened throughout by a decent ethic and official integrity. Here again universities and colleges are crucial. Departments of political science and public administration, departments of sociology, anthropology and social work, and the related disciplines in colleges of arts and sciences and graduate schools, are producing men and women who can improve performance in positions from social worker to top administrator, and who can help plan "shaping up" at points in the complex where they are needed.

State Highway and Other Construction. University colleges of engineering and applied science will continue to contribute much, by producing men and women who raise the expertise and elevate the ethics of the several engineering professions, in state employ and elsewhere.

Even university and college economists, after they more nearly get their act together and talk sense about the facts, apart from their respective inborn political and social prejudices, could advise Presidents and governors wisely instead of merely confusing them, as they do now.

It is thrilling to think of what the effect will be of the rapidly growing number of graduates of university colleges of commerce and business administration on the efficiency and general health of business and industrial firms in this country. It is difficult to believe that the nineteenth century truism, "the ethics of business is the ethics of the pig-pen" will continue to be repeated; or that allegiance will forever be given exclusively to Adam Smith's two-hundred-year-old dictum, "every man for himself and the Devil take the hindmost"—"the law of the
fang and the claw"—"the law of the jungle" will always prevail.

**Education Is Forever**

The foregoing handful of illustrations serves to suggest that every university, every college, every department in all higher education has important missions toward the advancement of civilization. Higher education of every person to the limit of ambition and capacity is a long-term productive investment of public money. Its returns extend through a 40 or 50-year working life, and beyond for generations. It has been demonstrated that through increased personal income and consequently added income taxes alone, even a four-year college education for an average student may be expected to recoup for state and federal governments in actual dollars much more than the total tax outlay for the four years of instruction provided.

A moment's thought will lead to the conclusion that higher education is to a very large extent the essential key to the development of all the professions, paraprofessions, semiprofessions and subprofessions, by whatever name called; and the door to advancement in all walks of life for individuals. The benefits are private and personal in some degree, yes, but the far weightier gains are to the public at large—the state, the nation, and the world—benefits to the whole society. This has an important bearing on the public financing of the instructional and research facilities and opportunities.

Useful knowledge or literary or other skills learned early are generally retained and often improved throughout the span of working life. "Education creates an appetite for more education." Moreover, no matter what the level of learning attained, it tends to upgrade the individual's
way of life culturally and vocationally; and to raise permanently the quality of upbringing received by the successive generations of the same family.

The Faith and Good Will of Parents

An almost universal feeling among parents is "I want my child to have a better life than I have had." This is evidenced by the results of many surveys in which thousands of parents representative of the general public have responded, about three to one, that they want and expect their children to go to college.

Parents also usually hope that their children will have better jobs than they themselves had; and this is not unreasonable, because the economy is not frozen. With the advance of technology, gradually all jobs are being upgraded; and the same is true of the increasing growth of the service occupations. These are elements in the advance of civilization. Even if the economy were temporarily to stabilize fully or recede, the possibility of more fulfilling work for all would not be precluded.

It can also be reflected, from the standpoint of the states and the nation and of the whole society, that the effects of education are durable. "No people can remain ignorant and continue free." The colleges of law, the humanities, and the social sciences are the hope for improved social justice. The colleges of medicine and related sciences are the fount of discoveries in health and preventive medicine. The agricultural colleges and experiment stations are the principal reasons for this nation's vast productivity of foods and fibers.

Schooling for all children up to the age of eighteen seems of matchless importance; but it depends on the colleges and universities for
its teachers. In turn, the advancement of all education at all levels and of all types, and the practice of all the professions and vocations depends in great part on better-educated teachers in the lower schools. The increasing stream of discoveries in engineering and technology are often made in university laboratories; and, if not, almost invariably they are made by persons who come via the universities.

The foregoing are only a handful of illustrations of the key position of higher education among the functions of the state and of society.

It appears that higher education merits first priority among all state functions.

The people of California expressed this idea in an amendment to the California Constitution (Article XIII, section 15), adopted in 1933, in the depths of the Great Depression: "Out of the revenues from state taxes for which provision is made in this article, together with all other state revenues, there shall first be set apart the moneys to be applied by the state to the support of the public school system and the State University."

An Upturn in Public Esteem

This brief section on "Priority of Higher Education as a State Function" should not be concluded without mention of two very significant recent publications which may signal an upward turn from the seeming mixture of panic and cynicism which infects many of those who are seriously concerned about the subject, in recent years and at present.

Howard R. Bowen, distinguished economist, former president of the University of Iowa, now honored with an endowed professorship of
economics and education at the Claremont Graduate School in California, is principal author of the best work of the twentieth century on this subject, entitled *Investment in Learning: The Individual and Social Value of American Higher Education* (San Francisco: Jossey-Bass, 1978, p. 507). The work has eminent sponsorship: it was issued by the Carnegie Council on Policy Studies in Higher Education and its preparation was supported by the Sloan Foundation.

Also of similar significance and tenor is a publication of the American Council on Education, *College Enrollment: Testing the Conventional Wisdom Against the Facts*, by the Council's chief economist, Carol Frances, who is also chief of its Division of Policy Analysis and Research. Both Carol Frances and Howard Bowen suggest that there may well be increases in enrollment in higher education over the ensuing decade.