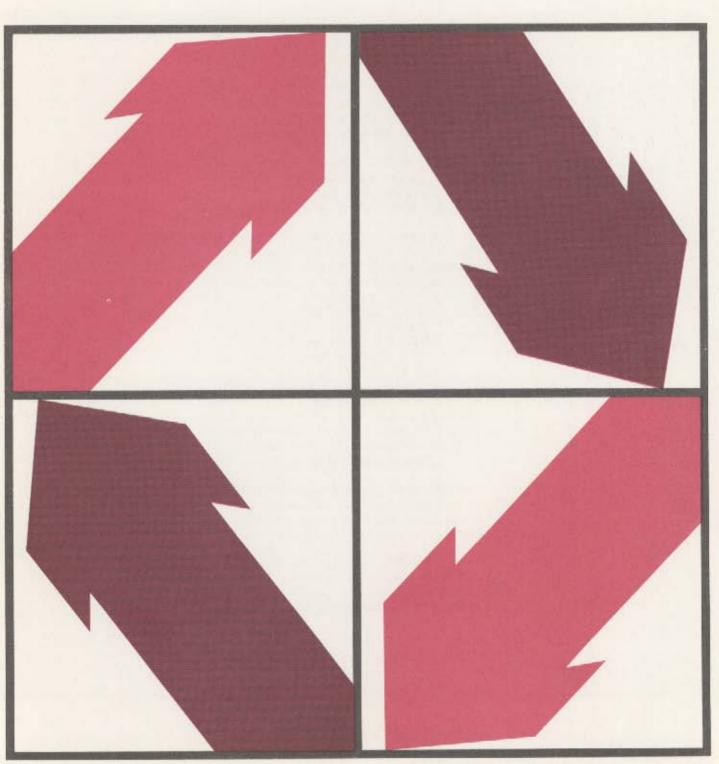
## Measuring the Fiscal "Blood Pressure" of the States – 1964-1975

Advisory Commission on Intergovernmental Relations Washington, D. C. 20575 February 1977



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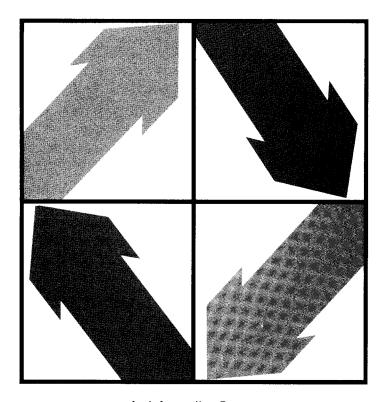
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## Measuring the Fiscal "Blood Pressure" of the States—1964-1975



An Information Paper

Advisory Commission on Intergovernmental Relations Washington, D. C. 20575 February 1977

M-111

### **Preface**

he Commission has a continuing interest in the fiscal integrity of state and local governments because it is a necessary characteristic of a well balanced federal system. In 1962, the Commission published Measures of State and Local Fiscal Capacity and Tax Effort. This information report developed estimates of the fiscal capacity for each of the 50 state-local systems assuming average use of the various tax sources — the "representative tax system" approach. In 1971, the Commission issued a second information report using a revised and expanded concept of the representative financing system that encompassed both tax and non-tax revenue — Measuring the Fiscal Capacity and Effort of State and Local Areas.

In this information report, the concept of fiscal stress is developed measuring tax effort not merely at a single point in time but over the recent past.

At best, these fiscal pressure findings should be viewed as but one of the aids to help policymakers balance the benefits and burdens that flow from changing the relationship between their public and private economies. For example, some states with high fiscal pressure readings may want to reduce the growth rate of the public sector and stimulate private development. On the other hand, some states may decide that the continuation of above average tax burdens constitutes sound public policy. The same difference of opinion will be apparent at the other end of the fiscal stress spectrum. Some states with low fiscal pressure readings may use this evidence as an argument for strengthening the public sector. In sharp contrast, policymakers in other low pressure states may cite these findings as support for their belief that a continuation of conservative fiscal policies is necessary to maintain a favorable competitive position.

Some would interpret the growing disparities in interstate fiscal pressure as a justification for remedial federal action. For this reason, the authors have examined the pros and the cons of alternative federal strategies.

The policy alternatives set forth in this report have not been reviewed by the Commission and this document, therefore, should be considered as an information report only.

> Robert E. Merriam Chairman

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## Acknowledgments

ohn Ross, senior academic resident in public finance, and John Shannon, assistant director of the taxation and public finance staff, coauthored this study. Gordon Folkman and Richard Reeder of the Commission staff assisted with the data gathering and calculations. The authors received useful comments on an early draft of the study from public finance scholars and teachers, tax administrators, and tax practitioners.

This report was originally presented as a paper at the Conference on State and Local Finance at the University of Oklahoma on October 15, 1976, and is planned to be published as a part of the conference proceedings — Policies and Practices in State and Local Financing — edited by Professor Walter E. Scheffer. This report is being reprinted by ACIR for the convenience of those who will not have ready access to the conference proceedings.

The full responsibility for content and accuracy rest, as always, with the Advisory Commission on Intergovernmental Relations staff.

Wayne F. Anderson Executive Director

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#### 1

#### INTRODUCTION

isparities in economic growth rates among various regions of the nation have become sufficiently severe to attract the attention of the popular press. Business Week, in its May 17, 1976, issue, actually announced the coming of the "second war between the states"1 as a result of the rapid shift of population, capital, and jobs from the Northeast and Midwest to the South and the West. Following this theme, the National Journal recently published a study of regional differences in federal spending patterns. The study concluded that "federal tax and spending policies are causing a massive flow of wealth from the Northeast and Midwest to the fast growing Southern and Western regions of the nation," thus exacerbating present growth patterns. It goes on to add:

Measuring the

of the States:

1964-1975

Fiscal "Blood Pressure"

The states at the receiving end of high federal outlays (those in the South and West) also tend to be those that tax their own citizens least for state and local government services.

On the other hand, the balance of payments situation generally is adverse in the Northeast and Midwest, where population is stagnant or

i"The Second War Between the States," Business Week, May 17, 1976, No. 2432, pp. 92-114.

<sup>&</sup>lt;sup>2</sup>"Federal Spending: The North's Loss is the Sunbelt's Gain," National Journal, June 26, 1976, pp. 878-891.

declining, where unemployment is the most severe, where relative personal income is falling and where the heaviest state and local tax burdens are imposed.<sup>3</sup>

Similar to the discovery of city-suburb disparities in the 1960s, a number of observers feel that findings such as these indicate the need for major revisions in the federal aid system. Rather than reinforcing the fortunes of the fast growing regions of the South and West, federal policy should now provide more help to the slow growth areas of the Northeast and Midwest. However, even those suggesting revision would concede the need to develop more accurate techniques for measuring the severity of this "war between the states" and its effect on state-local fiscal systems.

This paper has a limited goal — to build a more sophisticated measure of state-local fiscal stress by comparing the variations in tax loads borne by the 50 state-local systems. Such measures — alternatively called tax burdens when viewed from the perspective of the taxpayer or tax effort when viewed from the perspective of the taxing jurisdiction — provide estimates of the relative balance between the tax revenue raised by a jurisdiction and its fiscal capacity. While there is no generally agreed upon, best measure of fiscal pressure, the traditional measure is the ratio of state-local tax collections to resident personal income for a given year.

### NEED FOR BETTER MEASURES OF FISCAL PRESSURE

This traditional measure has the advantages of simplicity and ease of calculation, however, as an estimator of relative fiscal balance it also has a number of weaknesses. The two most important are: (1) it is single dimensional — a specific point in time that cannot reveal trends; and (2) resident personal income tends to *understate* the fiscal capacity of those states that are in a relatively good position to export a substantial portion of their tax load and *overstate* the fiscal capacity of those states that are not in such a fortunate position. As a result, the ratio of tax collections to income in any one year can be a misleading indicator of diversities in relative fiscal balance.

#### The Two-Dimensional Approach

Traditional estimates of fiscal pressure provide interstate comparisons of relative fiscal positions at a given time. There is however a second factor, a time dimension, which should be considered when comparing state-local fiscal systems. Regardless of the fiscal pressure at a given point in time, both the citizens of the state and multistate corporations are more likely to perceive a heavier burden in those states where tax burdens are rising than in those states where taxes as a percentage of income are either remaining relatively constant or falling. It is that perceived pressure which may help to account for some of the resistance on the part of the taxpayer to increase the size of the public sector and the reluctance of corporations to locate in certain states. Therefore, tax trends should be included as a part of any estimate of comparative fiscal position.

Table I develops a fiscal pressure index which includes a time span dimension. Column 1 is the ratio of own-source tax collections to resident personal income for 1975. The ratios are indexed based on the United States' median and ranked accordingly in Columns 2 and 3. In 1975, fiscal pressure ranged from a low of 9.1% in Arkansas to a high of 16.2% in New York.

Column 4 presents estimates of the average annual rate of change in tax effort from 1964 to 1975. Columns 5 and 6 index these rates of change based on the U.S. median and show their relative ranking. For eight states — South Dakota, Iowa, Colorado, North Dakota, Idaho, Kansas, Oklahoma, and Florida — tax pressure actually fell between 1964 and 1975. Note the degree of diversity in growth among the states. The range of growth rates was from an average increase of 3.069% per year in New York to a fall of 1.031% per year in North Dakota for a differential of 4.1% per year. In index number terms, the difference was almost 400% between these two states.

Column 7 combines these two dimensions into a single measure of "fiscal blood pressure" based on each state's index numbers. The numerator or "systolic" reading indicates the state's relative position in 1975. The denominator or "diastolic" measurement indicates the state's relative change in pressure from 1964 to 1975. Thus, the median state's fiscal pressure becomes 100 over 100.

<sup>3</sup>Ibid., p. 878 (parentheses added).

<sup>\*</sup>Average annual rate of change in the ratio of total state and local taxes to resident personal income.

Table II divides the states into quadrants: those with relatively high and rising increases in pressure; those with relatively high and falling pressure; those with relatively low and rising increases in pressure; and those with relatively low and falling pressure. With the exception of Hawaii, California, Nevada, and West Virginia, all of the states in the relatively high and rising category are in New England, the Mideast, and the Great Lakes region, while about half the sunbelt states are in the relatively low and falling group.

In order to visualize these patterns and the changes involved, Chart I plots all of those states more than one standard deviation from the median in 1975 on either index. The most "deviant" state is New York which is actually more than two standard deviations from the median and continuing to rise. Significantly, the states in the sunbelt region do not appear so advantaged when this more rigorous test of dispersion is employed—only Alabama, Arkansas, Florida, Oklahoma, and Tennessee are more than one standard deviation from the median in the relatively low and falling category.

#### The Representative Tax Capacity Approach

Including a time dimension as a component of relative fiscal pressure improves the traditional measure by indicating tax pressure trends; however, there is a second major problem with the traditional measure of pressure — it understates the taxable base of mineral rich states such as Louisiana, Wyoming, Montana, Colorado, and Texas and of tourist states such as Nevada and Florida. Oil and mineral rich states are able to tax certain captive industries much more heavily than states without such resources and tourist states can often capitalize on their geographic advantages. In addition, the resident personal income test also understates the real taxable capacity of the property rich farm states.

To overcome these deficiencies, the ACIR has calculated fiscal capacity indexes by state for

1966-67 estimating what the state-local revenue system would have generated had it made average use of all its taxable resources. Using a similar methodology, Robert D. Reischauer estimated tax capacity by state for 1962 and 1972.

Columns 1, 2, and 3 of Table III use Reischauer's estimates of tax capacity to adjust personal income so that it reflects what the fiscal capacity of each state would have been had it made average use of all major taxable sources. In this case, the tax burden range was from a low of 8.22% of "adjusted" personal income in Arkansas to a high of 17.83% in New York for 1975.

Again using Reischauer's index to adjust resident personal income for differences in tax capacity, Columns 4, 5, and 6 indicate the change in fiscal pressure from 1964 to 1975. The change is indexed based on the median state and the states are ranked accordingly. The high state was again New York with fiscal pressure growing at an average annual rate of almost 4% per year. Again, some states actually had real declines in pressure from 1964 to 1975. The state having the greatest decline in pressure was Alaska. In that state, fiscal pressure fell at an average annual rate of 0.652% per year. The difference in average growth rates between these high and low states amounted to more than 4.3 percentage points per year.

Column 7 shows the two-dimensional approach to fiscal pressure as the ratio of the state's index in 1975 to its index in the growth of pressure 1964-75. Table IV again divides the states into quadrants based on their relative positions.

The majority of the relatively high and rising states are located in the Northeast and Midwest. They are primarily the highly industralized, urban states.

Those states with relatively low and falling fiscal pressure are found primarily in the South and Southwest, with New Hampshire the major exception in this category.

Chart II shows all those states greater than one

<sup>&#</sup>x27;The relative positions of some of the states would change if a broader definition of revenue effort had been employed. The authors elected to use taxes rather than own-source revenue because of data comparability problems that would have arisen in using the Reischauer index discussed in the next section.

<sup>&</sup>lt;sup>6</sup>For a presentation of these overstatement and understatement effects, see *Appendix A*.

Advisory Commission on Intergovernmental Relations, Measures of State and Local Fiscal Capacity and Tax Effort (M-16, October 1962), and Advisory Commission on Intergovernmental Relations, Measuring the Fiscal Capacity and Effort of State and Local Areas (M-58, March 1971).

<sup>\*</sup>Robert D. Reischauer, "Rich Governments-Poor Governments: Determining the Fiscal Capacity and Revenue Requirements of State and Local Government," The Brookings Institution, December 1974, unpublished manuscript.

See Appendix B.

| , |  |  |
|---|--|--|
|   |  |  |
|   |  |  |

|                                | Using Resi   |              | asure<br>sonal I | A Two-Dimensional Measure of Relative State-Local Fiscal Pressure Using Resident Personal Income to Estimate Fiscal Capacity: 1964–75 | Capacit      |             |   |
|--------------------------------|--|--------------|------------------|---|--------------|-------------|---|
| State                          | Own-Source Taxes<br>as a Percentage<br>of Income, 1975 <sup>1</sup><br>(1) | Index<br>(2) | Rank<br>(3)      | Average Annual Rate<br>of Change in Tax Effort,<br>1964-75 (Percent Per Year)²<br>(4)   | Index<br>(5) | Rank<br>(6) | A Two-<br>Dimensional Fiscal<br>Pressure Index<br>(7) |
| <b>United States</b><br>Median | 11.10  | 100          |                  | 1.033   | 100          |             |   |
| New England                    |  | ,            | C                |   |              | ç           |   |
| Maine<br>New Hampshire         | 12.30  | LLL<br>05    | ာ ဗု             | 1.480<br>1.565  | 144<br>52    | ا<br>ا      | 92/152  |
| Vermont                        | 14.67  | 132          | 8 0              | 1.873   | 181          | 5 2         | 132/181   |
| Massachusetts                  | 13.86  | 125          | က                | 2.935   | 284          | 7           | 125/284   |
| Rhode Island                   | 11.45  | 103          | 16               | 1.854   | 179          | 13          | 103/179   |
| Connecticut                    | 10.36  | 93           | 34               | 1.769   | 171          | 15          | 93/171  |
| Mideast                        | -  |              |                  |   |              |             |   |
| New York                       | 16.17  | 146          | -                | 3.069   | 297          | -           | 146/297   |
| New Jersey                     | 11.18  | 101          | 22               | 2.670   | 258          | ß           | 101/258   |
| Pennsylvania                   | 11.13  | 100          | 22               | 2.134   | 207          | Ξ           | 100/207   |
| Delaware                       | 11.17  | 101          | 24               | 2.690   | 260          | 4           | 101/260   |
| Maryland                       |  | 105          | 15               | 2.536   | 245          | 7           | 105/245   |
| District of Columbia           | ia 10.23   | 95           | 36               | 2.196   | 213          | 10          | 92/213  |
| Great Lakes                    |  |              |                  |   |              |             |   |
| Michigan                       | 11.36  | 102          | 8                | 1.186   | 115          | 23          | 102/115   |
| Ohio                           | 9.46   | 85           | 49               | 1.080   | 104          | 52          | 85/104  |
| Indiana                        | 10.59  | 95           | 32               | 1.033   | 100          | 56          | 95/100  |
| Illinois                       | 11.17  | 101          | 23               | 2.408   | 233          | ∞           | 101/233   |
| Wisconsin                      | 13.19  | 119          | 7                | 0.906   | 88           | 31          | 119/88  |
| Plains                         |  |              |                  |   |              |             |   |
| Minnesota                      | 13.41  | 121          | 9                | 1.185   | 115          | 54          | 121/115   |
| lowa                           | 10.98  | 66           | 27               | -0.023  | 7            | 4           | 99/2  |
| Missouri                       | 9.88   | 88           | 4                | 1.344   | 130          | 8           | 89/130  |
| North Doloto                   | 000  | •            | •                | 700   |              |             |   |

| South Dakota   | 11.10 | 100 | 26 | -0.895 | -87 | 50  | 100/–87 |
|----------------|-------|-----|----|--------|-----|-----|---------|
| Nebraska       | 10.10 | 91  | 42 | 0.761  | 74  | 35  | 91/ 74  |
| Kansas         | 10.27 | 93  | 37 | -0.456 | -44 | 49  | 93/–44  |
| Southeast      |       |     |    |        |     |     |         |
| Virginia       | 10.14 | 91  | 41 | 2.203  | 213 | 9   | 91/213  |
| West Virginia  | 11.39 | 102 | 19 | 1.333  | 129 | 21  | 102/129 |
| Kentucky       | 10.59 | 95  | 31 | 1.737  | 168 | 16  | 95/168  |
| Tennessee      | 9.56  | 86  | 48 | 0.382  | 37  | 40  | 86/ 37  |
| North Carolina | 10.18 | 92  | 40 | 0.774  | 75  | 34  | 92/ 75  |
| South Carolina | 9.96  | 90  | 43 | 0.989  | 96  | 27  | 90/ 96  |
| Georgia        | 10.32 | 93  | 36 | 1.247  | 121 | 22  | 93/121  |
| Florida        | 9.59  | 86  | 47 | -0.433 | -42 | 48  | 86/–42  |
| Alabama        | 9.34  | 84  | 50 | 0.472  | 46  | 38  | 84/ 46  |
| Mississippi    | 11.33 | 102 | 21 | 0.697  | 67  | 37  | 102/ 67 |
| Louisiana      | 12.14 | 109 | 12 | 0.938  | 91  | 28  | 109/ 91 |
| Arkansas       | 9.10  | 82  | 51 | 0.042  | 4   | 43  | 82/ 4   |
| Southwest      |       |     |    |        |     |     |         |
| Oklahoma       | 9.61  | 87  | 46 | -0.157 | -15 | 46  | 87/–15  |
| Texas          | 9.67  | 87  | 45 | 0.459  | 44  | 39  | 87/ 44  |
| New Mexico     | 12.22 | 110 | 10 | 0.791  | 77  | 32  | 110/ 77 |
| Arizona        | 12.71 | 114 | 8  | 0.774  | 75  | 33  | 114/ 75 |
| Rocky Mountain |       |     |    |        |     |     |         |
| Montana        | 11.74 | 106 | 14 | 0.284  | 27  | 41  | 106/ 27 |
| Idaho          | 10.39 | 94  | 33 | -0.270 | -26 | 47  | 94/–26  |
| Wyoming        | 12.02 | 108 | 13 | 0.754  | 73  | 36  | 108/ 73 |
| Colorado       | 10.97 | 99  | 28 | -0.090 | -9  | 45  | 99/ –9  |
| Utah           | 10.81 | 97  | 29 | 0.082  | 8   | 42  | 97/ 8   |
| Far West       |       |     |    |        |     |     |         |
| Washington     | 11.42 | 103 | 18 | 0.908  | 88  | 30  | 103/ 88 |
| Oregon         | 11.44 | 103 | 17 | 0.927  | 90  | 29  | 103/ 90 |
| Nevada         | 12.20 | 110 | 11 | 1.778  | 172 | 14  | 110/172 |
| California     | 13.82 | 125 | 4  | 1.629  | 158 | 17  | 125/158 |
| Alaska         | 10.35 | 93  | 35 | 2.879  | 279 | 3   | 93/279  |
| Hawaii         | 13.72 | 124 | 5  | 2.572  | 249 | - 6 | 124/249 |

<sup>&</sup>lt;sup>1</sup>Income is the average of resident personal income for calendar years 1974 and 1975.

Source: ACIR staff estimates based on U.S. Department of Commerce, Office of Business Economics, Survey of Current Business, various years; and U.S. Bureau of the Census, Governmental Finances, various years.

<sup>&</sup>lt;sup>2</sup>Average annual rate of change in the ratio of total state and local taxes to resident personal income.

#### Table II

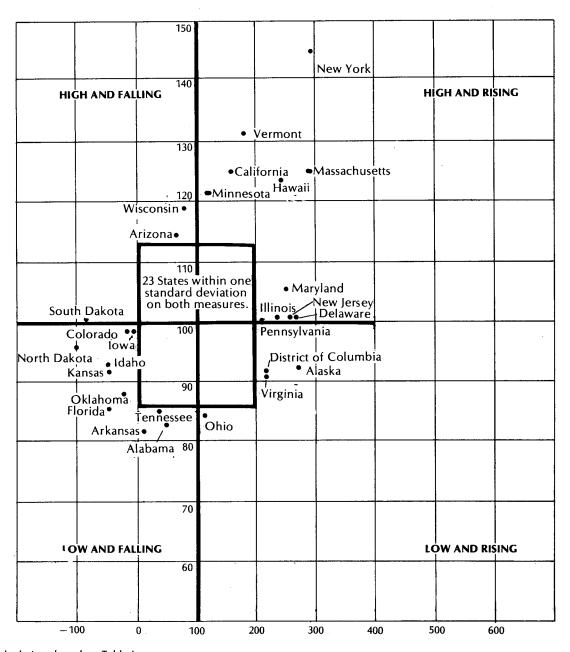
# A Two-Dimensional Measure of Relative State-Local Fiscal Pressure Using Resident Personal Income to Estimate Fiscal Capacity: Dividing the States Into Quadrants: 1964–75 (Indexed on Median)

High and Falling

| High and Falling |                | High and Rising                                       |         |
|------------------|----------------|---|---------|
| Wisconsin        | 119¹/88²       | New York  | 146/297 |
| Arizona          | 114/ 75        | Vermont   | 132/181 |
| New Mexico       | 110/ 77        | Massachusetts   | 125/284 |
| Louisiana        | 109/ 91        | California  | 125/158 |
| Wyoming          | 108/ 73        | Hawaii  | 124/249 |
| Montana          | 106/ 27        | Minnesota   | 121/115 |
| Oregon           | 103/ 90        | Maine   | 111/144 |
| Washington       | 103/88         | Nevada  | 110/172 |
| Mississippi      | 102/67         | Maryland  | 105/245 |
|                  |                | Rhode Island  | 103/179 |
|                  |                | West Virginia   | 102/129 |
|                  |                | Michigan  | 102/115 |
|                  |                | New Jersey  | 101/258 |
|                  |                | Illinois  | 101/233 |
|                  |                | Delaware  | 101/260 |
|                  |                | Pennsylvania  | 100/207 |
| Low and Falling  |                | Low and Rising  |         |
| South Dakota     | 100/–87        | Kentucky  | 95/168  |
| lowa             | 99/ –2         | Connecticut   | 93/171  |
| Colorado         | 99/ <b>–</b> 9 | Alaska  | 93/279  |
| Utah             | 97/ 8          | Georgia   | 93/121  |
| North Dakota     | 96/–100        | New Hampshire   | 92/152  |
| Indiana          | 95/100         | District of Columbia                                  | 92/213  |
| Idaho            | 94/–26         | Virginia  | 91/213  |
| Kansas           | 93/–44         | Missouri  | 89/130  |
| North Carolina   | 92/ 75         | Ohio  | 85/104  |
| Nebraska         | 91/ 74         |   | ·       |
| South Carolina   | 90/ 96         |   |         |
| Texas            | 87/ 44         |   |         |
| Oklahoma         | 87/–15         |   |         |
| Florida          | 86/–42         |   |         |
| Tennessee        | 86/ 37         |   |         |
| Alabama          | 84/ 46         | <sup>1</sup> Tax pressure index for 1975.             |         |
| Arkansas         | 82/ 4          | <sup>2</sup> Index of change in tax pressure 1964–75. |         |
|                  |                | 0   |         |

Source: ACIR staff estimates based on U.S. Department of Commerce, Office of Business Economics, Survey of Current Business, various years; and U.S. Bureau of the Census, Governmental Finances, various years.

High and Rising



Calculations based on Table I.

To be within one standard deviation on both scales, a State's index number would have to fall between 86.8 and 113.2 on the vertical axis and between 1.3 and 198.7 on the horizontal axis.

7

Table III

## A Two-Dimensional Measure of Relative State-Local Fiscal Pressure Using the Representative Tax Method to Estimate Fiscal Capacity: 1964–75

|                      | Own-Source Taxes as a Percentage of "Adjusted" |              |             | Average Annual<br>Rate of Change in<br>"Adjusted" Tax Effort,<br>1964-75 |              |             | A Two-<br>Dimensional Fiscal |
|----------------------|--|--------------|-------------|--|--------------|-------------|------------------------------|
| State                | Income,¹ 1975<br>(1)                           | Index<br>(2) | Rank<br>(3) | (Percent Per Year) <sup>2</sup> (4)                                      | Index<br>(5) | Rank<br>(6) | Pressure Index<br>(7)        |
| United States        |  |              |             |  |              |             |                              |
| Median               | 10.44  | 100          |             | 0.685  | 100          |             |                              |
| New England          |  |              |             |  |              |             |                              |
| Maine                | 11.91  | 114          | 11          | 0.982  | 143          | 22          | 114/143                      |
| New Hampshire        | 8.27   | 79           | 50          | -0.182   | -27          | 48          | 79/–27                       |
| Vermont              | 12.46  | 119          | 9           | 0.136  | 20           | 40          | 119/ 20                      |
| Massachusetts        | 15.22  | 146          | 2           | 2.610  | 381          | 4           | 146/381                      |
| Rhode Island         | 12.97  | 124          | 7           | 1.926  | 281          | 10          | 124/281                      |
| Connecticut          | 11.06  | 106          | 18          | 1.019  | 149          | 21          | 106/149                      |
| Mideast              |  |              |             |  |              |             |                              |
| New York             | 17.83  | 171          | 1           | 3.681  | 537          | 1           | 171/537                      |
| New Jersey           | 11.76  | 113          | 12          | 2.216  | 324          | 8           | 113/324                      |
| Pennsylvania         | 11.70  | 112          | 13          | 1.672  | 244          | 11          | 112/244                      |
| Delaware             | 10.59  | 101          | 23          | 2.580  | 377          | 5           | 101/377                      |
| Maryland             | 12.66  | 121          | 8           | 2.375  | 347          | 7           | 121/347                      |
| District of Columbia | 10.59  | 101          | 24          | 2.868  | 419          | 2           | 101/419                      |
| Great Lakes          |  |              |             |  |              |             |                              |
| Michigan             | 12.30  | 118          | 10          | 1.652  | 241          | 13          | 118/241                      |
| Ohio                 | 9.94   | 95           | 35          | 1.341  | 196          | 15          | 95/196                       |
| Indiana              | 10.55  | 101          | 25          | 0.673  | 98           | 28          | 101/ 98                      |
| Illinois             | 11.56  | 111          | 14          | 2.481  | 362          | 6           | 111/362                      |
| Wisconsin            | 13.16  | 126          | 6           | 0.197  | 29           | 38          | 126/ 29                      |
| Plains               |  |              |             |  |              |             |                              |
| Minnesota            | 13.25  | 127          | 5           | 1.187  | 173          | 18          | 127/173                      |
| lowa                 | 10.37  | 99           | 27          | -0.109   | -16          | 46          | 99/–16                       |
| Missouri             | 9.78   | 94           | 38          | 1.275  | 186          | 17          | 94/186                       |
| North Dakota         | 10.63  | 102          | 21          | -0.018   | -3           | 44          | 102/ -3                      |

| South Dakota   | 10.15 | 97  | 32 | -0.641 | -94 | 50 | 97/–94  |
|----------------|-------|-----|----|--------|-----|----|---------|
| Nebraska       | 9.19  | 88  | 43 | 1.333  | 195 | 16 | 88/195  |
| Kansas         | 10.05 | 96  | 33 | -0.126 | -18 | 47 | 96/–18  |
| Southeast      |       |     |    |        |     |    |         |
| Virginia       | 10.61 | 102 | 22 | 2.715  | 396 | 3  | 102/396 |
| West Virginia  | 11.08 | 106 | 17 | 1.657  | 242 | 12 | 106/242 |
| Kentucky       | 10.00 | 96  | 34 | 1.404  | 205 | 14 | 96/205  |
| Tennessee      | 9.24  | 89  | 42 | 0.097  | 14  | 41 | 89/ 14  |
| North Carolina | 9.81  | 94  | 37 | 0.518  | 76  | 31 | 94/ 76  |
| South Carolina | 10.31 | 99  | 28 | 1.156  | 169 | 19 | 99/169  |
| Georgia        | 9.63  | 92  | 40 | 0.628  | 92  | 30 | 92/ 92  |
| Florida        | 8.38  | 80  | 48 | 0.166  | 24  | 39 | 80/ 24  |
| Alabama        | 9.37  | 90  | 41 | 0.491  | 71  | 32 | 90/ 71  |
| Mississippi    | 11.03 | 106 | 19 | 1.119  | 163 | 20 | 106/163 |
| Louisiana      | 10.27 | 98  | 30 | 0.428  | 62  | 36 | 98/ 62  |
| Arkansas       | 8.22  | 79  | 51 | 0.468  | 68  | 33 | 79/ 68  |
| Southwest      |       |     |    |        |     |    |         |
| Oklahoma       | 8.30  | 79  | 49 | -0.022 | -3  | 45 | 79/ –3  |
| Texas          | 8.79  | 84  | 47 | 0.282  | 41  | 37 | 84/ 41  |
| New Mexico     | 10.27 | 98  | 31 | 0.720  | 105 | 24 | 98/105  |
| Arizona        | 11.25 | 108 | 16 | 0.704  | 102 | 25 | 108/102 |
| Rocky Mountain |       |     |    |        |     |    |         |
| Montana        | 9.70  | 93  | 39 | 0.030  | 4   | 43 | 93/ 4   |
| Idaho          | 9.82  | 94  | 36 | 0.081  | 12  | 42 | 94/ 12  |
| Wyoming        | 8.97  | 86  | 46 | 0.891  | 130 | 23 | 86/130  |
| Colorado       | 10.44 | 100 | 26 | -0.251 | -37 | 49 | 100/–37 |
| Utah           | 10.71 | 103 | 20 | 0.445  | 65  | 35 | 103/65  |
| Far West       |       |     |    |        |     |    |         |
| Washington     | 11.38 | 109 | 15 | 0.650  | 95  | 29 | 109/ 95 |
| Oregon         | 10.29 | 98  | 29 | 0.449  | 66  | 34 | 98/ 66  |
| Nevada         | 8.97  | 86  | 45 | 0.685  | 100 | 26 | 86/100  |
| California     | 13.79 | 132 | 3  | 2.121  | 310 | 9  | 132/310 |
| Alaska         | 9.15  | 88  | 44 | -0.652 | -95 | 51 | 88/–95  |
| Hawaii         | 13.47 | 130 | 4  | 0.676  | 99  | 27 | 130/ 99 |
|                |       |     |    |        |     |    |         |

<sup>&</sup>lt;sup>1</sup>The adjustment is based on Robert Reischauer's index of fiscal capacity, *op. cit.* (see also *Appendix B*). Income is the average of resident personal income for calendar years 1974 and 1975.

Source: ACIR staff estimates based on U.S. Department of Commerce, Office of Business Economics, Survey of Current Business, various years; and U.S. Bureau of the Census, Governmental Finances, various years.

<sup>&</sup>lt;sup>2</sup>Average annual rate of change in the ratio of total state and local taxes to "adjusted" resident personal income.

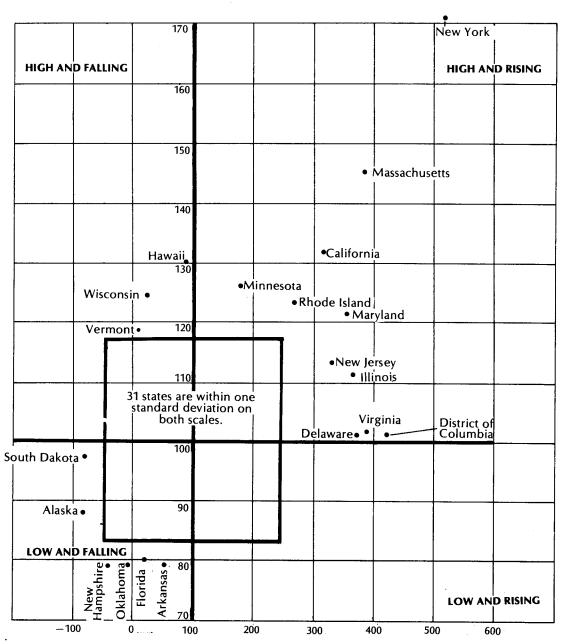
# A Two-Dimensional Measure of Relative State-Local Fiscal Pressure Using the Representative Tax Method to Estimate Fiscal Capacity: Dividing the States Into Quadrants: 1964–75 (Indexed on Median)

|               | High and Falling |                                    | High and Rising   |                |
|---------------|------------------|------------------------------------|---|----------------|
| Hawaii        |                  | 130 <sup>1</sup> / 99 <sup>2</sup> | New York  | 171/537        |
| Wisconsin     |                  | 126/ 29                            | Massachusetts   | 146/381        |
| Vermont       |                  | 119/ 20                            | California  | 132/310        |
| Washington    |                  | 109/ 95                            | Minnesota   | 127/173        |
| Utah          |                  | 103/65                             | Rhode Island  | 124/281        |
| North Dakota  | l                | 102/ -3                            | Maryland  | 121/347        |
| Indiana       |                  | 101/ 98                            | Michigan  | 118/241        |
|               |                  |                                    | Maine   | 114/143        |
|               |                  |                                    | New Jersey  | 113/324        |
|               |                  |                                    | Pennsylvania  | 112/244        |
|               |                  |                                    | Illinois  | 111/362        |
|               |                  |                                    | Arizona   | 108/102        |
|               |                  |                                    | West Virginia   | 106/242        |
|               |                  |                                    | Mississippi   | 106/163        |
|               |                  |                                    | Connecticut   | 106/149        |
|               |                  |                                    | Virginia  | 102/396        |
|               |                  |                                    | District of Columbia  | 101/419        |
|               |                  |                                    | Delaware  | 101/377        |
|               | Low and Falling  |                                    | Low and Rising  |                |
| Colorado      | J                | 100/–37                            | South Carolina  | 99/169         |
| lowa          |                  | 99/–16                             | New Mexico  | 98/105         |
| Oregon        |                  | 98/ 66                             | Kentucky  | 96/205         |
| Louisiana     |                  | 98/ 62                             | Ohio  | 95/196         |
| South Dakota  | l                | 97/–94                             | Missouri  | 94/186         |
| Kansas        |                  | 96/–18                             | Nebraska  | 88/195         |
| North Carolin | а                | 94/ 76                             | Wyoming   | 86/130         |
| Idaho         |                  | 94/ 12                             |   |                |
| Montana       |                  | 93/ 4                              |   |                |
| Georgia       |                  | 92/ 92                             |   |                |
| Alabama       |                  | 90/ 71                             |   |                |
| Tennessee     |                  | 89/ 14                             |   |                |
| Nevada        |                  | 86/100                             |   |                |
| Alaska        |                  | 88/–95                             | <sup>1</sup> Fiscal pressure for 1975.                                |                |
| Texas         |                  | 84/ 41                             | <sup>2</sup> The index of change is from 1964–75.                     | S Donortmont   |
| Florida       |                  | 80/ 24                             | Source: ACIR staff estimates based on U of Commerce, Office of Busine | •              |
| Arkansas      |                  | 79/ 68                             | Survey of Current Business, vari                                      | •              |
| Oklahoma      |                  | 79/ -3                             | U.S. Bureau of the Census, Go   | vernmental Fi- |
| New Hampsh    | nire             | 79/–27                             | nances, various years.  |                |

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#### CHART II

A Two-Dimensional Measure of Relative State-Local Fiscal Pressure Using the Representative Tax Method to Estimate Fiscal Capacity: State-Local Systems More Than One Standard Deviation From the Median: 1964-1975



Calculations based on Table IV.
To be within one standard deviation on both scales, a State's index number would have to fall between 81.9 and 118.1 on the verticle axis and between —49.5 and 249.5 on the horizontal axis.

standard deviation from the median. New York is again in a class by itself, more than two standard deviations on both the index measures. Oklahoma, Florida, and Arkansas are the only states in the "growth region" that are more than one standard deviation from the median in the relatively low and falling category.

#### Resident Personal Income v. Representative Tax Capacity

Comparing the relative positions of the states in Table IV and Table II shows the difference the choice of capacity measures can make. Hawaii and Vermont move from relatively high and rising to the relatively high and falling quadrant. Connecticut, District of Columbia, and Virginia move from low and rising to high and rising. A number of states, including Alaska and New Hampshire, move into the low and falling category. Finally, Nevada changes from high and rising to low and falling.

Adjusting income for what would have been available under a representative tax system makes the regional distinctions much more pronounced. There are, however, some practical problems associated with this approach. The first and most important is that the data necessary to make the adjustments are not available on an annual basis. Thus, the accuracy of the adjustment process itself for any given year can be questioned. Second, the adjustment process is complicated and not easily explained or understood. In deciding which of these indexes to use, one must weight the cost of the data problems and the increased complications against the improvements in accuracy.

#### WARNING SIGNS

A number of conclusions can be drawn from this two-dimensional measure of fiscal pressure. First, while there is a great deal of diversity in relative fiscal balance among the states, this finding ordinarily would not be a matter of concern because differences in tastes for public goods and services are an expected and justifiable characteristic of federalism. At some point, however, growing quantitative differences have qualitative effects and diversity then takes on the character of unwanted "disparity."

Many would argue that the growing polarization

of states on this tax pressure scale has now become a "disparity" (Table II). The data indicate that for the 1964-75 period, interstate diversity has increased—18 states are moving toward the median, while 33 are moving away from it. For the 1953-64 period, 34 states were moving toward the median while only 17 were moving from it.<sup>10</sup>

#### The Growing Diversity in State-Local Tax Pressure

|  | 1953-64 | 1964-75 |
|--|---------|---------|
| Number of states moving toward median    | 34      | 18      |
| Number of states moving away from median | 17      | 33      |

A crossover appears to have occurred since 1964. Maine, Rhode Island, Maryland, Pennsylvania, and Illinois all moved from relatively low and rising to relatively high and rising. North Dakota, South Dakota, Colorado, Iowa, Utah, Idaho, and Florida crossed from high and falling to low and falling. Some states, such as Massachusetts, moved in unpredicted directions, from high and falling to high and rising. The regional patterns are in general as one would expect, with Southern and Western states moving to positions of reduced fiscal pressure while Northeast and Midwest states are moving to positions of increased pressure.<sup>11</sup>

<sup>&</sup>lt;sup>10</sup>Summary statistics also indicate increasing diversity. For the actual burden, both the standard deviation and the coefficient of variation were less for 1964 than 1953 and greater for 1975 than 1964. For the growth in burden the coefficient of variation was much greater in 1975 than in 1964 while the standard deviation was slightly smaller. In general, the statistics indicate a movement toward equalization from 1953 to 1964 and since 1964 a movement away from equalization.

|                             | 1953<br>Tax<br>Burden | 1964<br>Tax<br>Burden | 1975<br>Tax<br>Burden | 1953-64<br>Growth | 1964-75<br>Growth |
|-----------------------------|-----------------------|-----------------------|-----------------------|-------------------|-------------------|
| Standard<br>Deviation       | 1.45                  | 1.28                  | 1.46                  | 1.06              | 1.02              |
| Coefficient<br>of Variation | 0.179                 | 0.128                 | 0.132                 | 0.487             | 0.987             |

<sup>&</sup>lt;sup>11</sup>These results are based on unpublished ACIR staff compilaations for the 1953–64 period.

The rates of change in fiscal pressure from 1964 to 1975 are far from uniform, and some states such as New York and Massachusetts are now under relatively extreme pressure. As a result, it is certainly much easier to make a case for federal aid to central cities (New York and Boston) located in states already under extreme fiscal pressure than for a central city such as St. Louis located in low pressure Missouri.

A second warning sign is provided by the regional distribution of these changes in fiscal pressure. In general, the Northeast and Midwest are experiencing increased fiscal pressure while the sunbelt states are in the falling pressure category. If the experience of the last 11 years provides a sneak preview of things to come, then interregional fiscal tensions will grow and the demand for a "new Federal aid deal" will become more strident.

Our fiscal pressure findings, however, can be interpreted to point in more than one direction. Even in the Northeast and Midwest, state and local policymakers have been able to alter significantly the size and composition of their respective public sectors — compare the fiscal pressure of Vermont and New Hampshire, Michigan, and Ohio. This diversity makes it difficult to obtain widespread agreement about the severity of the problem and the best way to resolve it.

#### POLICY IMPLICATIONS

Perhaps, the most obvious policy application of this "fiscal blood pressure" measure is to be found at the state level. Policymakers in those states with relatively high and rising pressure readings are alerted to the need for taking a much more critical view of the costs and benefits of public versus private spending. By the same token, policymakers in states experiencing relatively low and falling fiscal pressure have the opportunity to expand the quantity and quality of their public sectors without imposing undue hardships on their fiscs.

With respect to federal action, these inter- and intra-regional tax pressure diversities can elicit at least two distinct responses — a laissez faire attitude or a major effort to reform the federal aid system.

#### The Laissez Faire Attitude

A laissez faire school of thought could argue that the great variations in state fiscal pressure do not constitute a convincing argument for major changes in federal aid flows because these diversities in fiscal pressure are due primarily to individual state choices concerning the size and shape of their public fiscs. Moreover, there should be a positive relationship between public expenditures and benefits received.

It can also be argued that a fiscal effort measure cannot separate out the "big needers" from the "big spenders." Only after we develop sophisticated measures of the variations in state-local fiscal capacity and expenditure needs, are we justified in calling for explicit federal equalization action.

The *laissez faire* approach can also be supported by three other arguments. First, a number of measures indicate that the states of the South and Southwest, although growing, are still not as well off as the Northeast. In terms of per capita income a number of the states in the South and Southwest are still among the lowest in the country. They also tend to have the highest concentrations of poverty. Even if emphasis is restricted to the problems of large cities, as Robert Reischauer recently pointed out, "By and large cities with the highest relative concentrations of low income persons are located in the South, the poorest region of the country."12 Thus we are seeing a catch-up phenomenon and this equalizing process should not be hindered at this time.

To put the issue most bluntly, why should the federal government give proportionately more aid to New York and Massachusetts (characterized by above average per capita income and extraordinary tastes for public goods and services) and less aid to Mississippi and South Carolina that have below average per capita income and relatively modest appetites for public sector goods? Any major federal effort to equalize variations in fiscal pressure among the states should wait until most of the Southern states have reached the national average per capita income and also have constructed more robust public sectors.

<sup>&</sup>lt;sup>12</sup>Robert D. Reischauer, "The Federal Government's Role in Relieving Cities of the Fiscal Burdens of Concentrations of Low-Income Persons," *National Tax Journal*, Vol. XXIX, No. 3 (September 1976), p. 295.

Second, there is evidence that the high spending states are beginning to place a lid on the rate of growth of expenditures. For example, Governor Lucey of Wisconsin instructed his state agencies that in preparing their 1977-79 budget proposals "new programs... should not be funded from new taxes but from the reallocation of existing revenue and from programs which can be reduced or eliminated." He went on to add that "increases in the number of state employees be restricted to the rate of growth of private employment in Wisconsin, if it is to grow at all." Similar kinds of statements are being made by the governors of New York and Massachusetts.

Finally, in all of the explanations about federal spending imbalance no mention has been made of the fact that the generally higher tax bracket residents of the Northeast and Midwest are able to write off a larger proportion of their heavier state and local taxes against their federal income tax liability than are the relatively poorer taxpayers in the South and West. This indirect federal subsidy reduces interstate differences in real tax burdens.

#### The Activist Attitude

The second way to view these diversities is from the perspective of the activist. Under this view, corrective federal action is necessary now and the longer such action is delayed the more severe the problem will become. In support of this view is the fact that the disparities in economic activity appear to be increasing rather than subsiding and there is little reason to believe this trend can be quickly altered through individual state actions.

Moreover, high fiscal blood pressure readings chalked up by New York and Massachusetts are at least partially due to adverse regional economic trends — not to an extraordinary increase in their regional appetites for public sector goods. For example, for the 1964-75 period New York State experienced only about average growth in ownsource state and local tax collections but its average income growth rate was 1.6% less than the U.S. average. Texas on the other hand also had about average growth in tax collections, but its personal income growth rate was more than 1 percentage point higher than the U.S. average.

A number of those high pressure states, par-

ticularly New York and Massachusetts, are also bearing far more than their proportionate share of the national welfare burden. By aiding the federal government in carrying out this responsibility, they are in the process weakening their own fiscal position. These "generous" public welfare states become more attractive to the out-of-state poor and less attractive to their own upper income tax-payers. It should also be noted that all of the states with high and rising fiscal pressure, except Nevada and West Virginia, are also above the median in welfare burden. (See *Appendix* C.)

Our categorical aid system with its stimulating

matching requirements works against slow growth state and local governments in at least three important ways. First, it places them at a competitive disadvantage in the intergovernmental scramble for new federal aid dollars. For example, both "low pressure" Texas and Houston are now in a far better position to take advantage of any new federal matching programs than are New York State and New York City caught in the throes of fiscal apoplexy. Second, even if governments suffering from high fiscal blood pressure come up with the necessary matching funds, the price may well be a further deterioration of their relative fiscal position. Third, federal matching and expenditure maintenance requirements make it extremely difficult for a government such as New York City to take the right "cure" for high fiscal blood pressure. For example, should that government cut out a low priority federal aid program that brings in \$2 from Washington for every \$1 raised locally, or alternatively should it cut back on one of its own high priority programs financed primarily with local tax dollars?

As long as we had sustained economic growth throughout the nation, these three adverse effects of federal matching were not too apparent. Sharply varying regional growth rates may now force major reform of our federal aid system.

#### What Could Be Done

If one accepts the activist point of view then there are at least three major policy options available. The first and most far reaching would be a major redesign of our federal aid system emphasizing broad grants calculated to equalize fiscal pressure and deemphasizing narrow matching categorical aids that tend to increase fiscal pressure in all states.

<sup>&</sup>lt;sup>13</sup>Governor Patrick J. Lucey, "Press Release," State Capital Building, Madison, Wisconsin, July 9, 1976, pp. 1-2.

A second option is the development of a welfare circuit-breaker designed to relieve a substantial part of the excessive welfare burden borne by states with high tax pressure. Such a circuit-breaker might take effect when a state is above the median in both fiscal pressure and welfare burden. In those cases, the federal government would take over some percentage, say half, of the state-local welfare burden above the median welfare burden. Our studies indicate that such a program could be financed by a moderate reduction in the growth rate of all other federal aid programs. (For a listing of the states and the amount of payment, see *Appendix C*.)

A third approach would call for the scaling down of the matching requirements of federal aid programs for those states that are characterized by both relatively slow economic growth and above average tax pressure. Such a fiscal need might be based on a number of indicators, including not only our two-dimensional estimates of fiscal pressure but also changes in population, real personal income and manufacturing employment.

Equipped with the proper expenditure safeguards, 15 the latter two approaches would provide federally financed incentives to the "high pressure" states to reduce their rate of expenditure increase while, at the same time, reducing the pain of transition. Thus, in sharp contrast to typical federal fiscal incentives, these proposals would dampen rather than stimulate state-local expenditures.

The activist must still face the realization that the art of measuring differences in the need for federal aid is most primitive. Our first twodimensional index improves the state of the art by including a time dimension. However, resident personal income, a factor upon which it is based, has been shown to be of questionable value as a proxy for measuring tax capacity in some states. While our second two-dimensional index improves the reliability of interstate comparisons, the data constraints and the complexities inherent in "adjusting" state personal income figures make its ready acceptance doubtful. Thus, as is often the case, the activist is left in the unhappy position of either recommending policy changes based on imprecise information or waiting until better data become available.

The real activist, however, will be willing to settle for less than perfect information, realizing that as always there are only three types of data—the non-existent, the inadequate, and the forthcoming.

#### **SUMMARY**

In this paper we have attempted to build a more sophisticated gauge of state-local fiscal stress. A "fiscal blood pressure" type of index was constructed that measures state-local tax pressure at both a given time and over time. In order to increase its reliability this two-dimensional index was then adapted to the ACIR representative tax model for estimating state-local fiscal capacity.

This more sophisticated fiscal blood pressure type of index produced readings that revealed greater pressure differences between the nation's slow and fast growing regions than could be obtained with the traditional measure — state and local taxes as a percent of resident personal income at a given point in time.

By placing the 50 state-local systems and the District of Columbia into fiscal pressure quadrants, it also became readily apparent that regional tax pressure diversities are both extensive and growing. Significant differences in tax pressure readings among states within the same region, however, certainly complicate any attempt to prescribe nationwide solutions.

Finally, we set forth several explanations for the great variations in fiscal pressure readings among the states, and then showed how these explanations could be used to support two sharply differing philosophies of political behavior — a laissez faire approach, or reforms that would tailor federal aid to the varying rates of economic growth and fiscal pressure among the states and localities. These reforms could include equalizing block grants, public welfare circuit-breakers, or variable federal matching requirements.

<sup>14</sup>To make sure that a substantial amount of federal aid goes to those jurisdictions experiencing greatest fiscal stress — the major central cities in the Northeast and Midwest — Congress might well require the states to pass through a substantial part of this welfare reimbursement to local governments on a highly equalizing basis.

<sup>15</sup>Such expenditure safeguards might include the requirements that state-local expenditures in general and welfare expenditures in particular would not be eligible for preferential federal funding if they exceeded national rates of growth.

Appendix A

# The Understatement or Overstatement of Tax Pressure When the Conventional Tax Effort Measure Is Compared to the Representative Tax Yield Measure

|                    | 1975 Tax Effort          |  | Difference            |                        |  |
|--------------------|--------------------------|--|-----------------------|------------------------|--|
| State              | Conventional<br>Measure¹ | Representative<br>Measure <sup>2</sup> | Percent<br>Overstated | Percent<br>Understated |  |
| New England        |                          |  |                       |                        |  |
| Maine              | 12.3                     | 11.9                                   | 3.4                   |                        |  |
| New Hampshire      | 10.3                     | 8.3                                    | 24.1                  | · <del></del>          |  |
| Vermont            | 14.7                     | 12.5                                   | 17.6                  | _                      |  |
| Massachusetts      | 13.9                     | 15.2                                   | _                     | 8.6                    |  |
| Rhode Island       | 11.5                     | 13.0                                   | _                     | 11.5                   |  |
| Connecticut        | 10.4                     | 11.1                                   | _                     | 6.3                    |  |
| Mideast            |                          |  |                       |                        |  |
| New York           | 16.2                     | 17.8                                   | _                     | 9.0                    |  |
| New Jersey         | 11.2                     | 11.8                                   | _                     | 5.1                    |  |
| Pennsylvania       | 11.1                     | 11.7                                   | _                     | 5.1                    |  |
| Delaware           | 11.2                     | 10.6                                   | 5.7                   |                        |  |
| Maryland           | 11.7                     | 12.7                                   | _                     | 7.9                    |  |
| District of Columb | ia 10.2                  | 10.6                                   | _                     | 3.8                    |  |
| Great Lakes        |                          |  |                       |                        |  |
| Michigan           | 11.4                     | 12.3                                   | _                     | 7.3                    |  |
| Ohio               | 9.5                      | 9.9                                    | _                     | 4.0                    |  |
| Indiana            | 10.6                     | 10.6                                   | -0-                   | -0-                    |  |
| Illinois           | 11.2                     | 11.6                                   | _                     | 3.4                    |  |
| Wisconsin          | 13.2                     | 13.2                                   | -0-                   | -0-                    |  |
| Plains             |                          |  |                       |                        |  |
| Minnesota          | 13.4                     | 13.3                                   | 0.8                   |                        |  |
| lowa               | 11.0                     | 10.4                                   | 5.8                   |                        |  |
| Missouri           | 9.9                      | 9.8                                    | 1.0                   | _                      |  |
| North Dakota       | 10.7                     | 10.6                                   | 0.9                   | _                      |  |

| South Dakota   | 11.1 | 10.2 | 8.8  | _              |
|----------------|------|------|------|----------------|
| Nebraska       | 10.1 | 9.2  | 9.8  | _              |
| Kansas         | 10.3 | 10.1 | 2.0  | _              |
| Southeast      |      |      |      |                |
| Virginia       | 10.1 | 10.6 |      | 4.7            |
| West Virginia  | 11.4 | 11.1 | 2.7  | <del>-</del> ' |
| Kentucky       | 10.6 | 10.0 | 6.0  |                |
| Tennessee      | 9.6  | 9.2  | 4.3  | _              |
| North Carolina | 10.2 | 9.8  | 4.1  | _              |
| South Carolina | 10.0 | 10.3 |      | 2.9            |
| Georgia        | 10.3 | 9.6  | 7.3  | _              |
| Florida        | 9.6  | 8.4  | 14.3 |                |
| Alabama        | 9.3  | 9.4  | _    | 1.1            |
| Mississippi    | 11.3 | 11.0 | 2.7  |                |
| Louisiana      | 12.1 | 10.3 | 17.5 |                |
| Arkansas       | 9.1  | 8.2  | 11.0 | _              |
| Southwest      |      |      |      |                |
| Oklahoma       | 9.6  | 8.3  | 15.7 | ********       |
| Texas          | 9.7  | 8.8  | 10.2 |                |
| New Mexico     | 12.2 | 10.3 | 18.4 | _              |
| Arizona        | 12.7 | 11.3 | 12.4 |                |
| Rocky Mountain |      |      |      |                |
| Montana        | 11.7 | 9.7  | 20.6 | _              |
| Idaho          | 10.4 | 9.8  | 6.1  | _              |
| Wyoming        | 12.0 | 9.0  | 33.3 | _              |
| Colorado       | 11.0 | 10.4 | 5.8  | _              |
| Utah           | 10.8 | 10.7 | 0.9  | _              |
| Far West       |      |      |      |                |
| Washington     | 11.4 | 11.4 | -0-  | -0-            |
| Oregon         | 11.4 | 10.3 | 10.7 | _              |
| Nevada         | 12.2 | 9.0  | 35.6 |                |
| California     | 13.8 | 13.8 | -0-  | -0-            |
| Alaska         | 10.4 | 9.2  | 13.0 |                |
| Hawaii         | 13.7 | 13.5 | 1.5  |                |

<sup>&</sup>lt;sup>1</sup>State and local tax collections as percent of resident personal income. <sup>2</sup>State and local tax collections as percent of representative tax base.

## 1975 Income Adjustment

Appendix Table B illustrates the way in which this adjustment works. Column I is Reischauer's index of adjusted tax capacity for 1972. It may be stated as:  $TCi/POPi \div \sum TCi/\sum POPi$  where

TCi = the tax capacity for the i<sup>th</sup> state in 1972. It is the actual dollar amount which would have been collected by the i<sup>th</sup> state in 1972 had they made average use of all of their taxable resources.

POPi = the population of the ith state in 1972.

ΣTCi = the tax capacity of all state-local governments in the United States in 1972. It is equal to total state-local government tax collections in 1972.

 $\Sigma$ POPi = the United States' population in 1972.

Column II is an index of personal income in 1972. It may be written: PIi/POPi  $\div \sum_{i} PIi/\sum_{i} POPi$  where

PIi = resident personal income of the i<sup>th</sup> state in 1972.

 $\sum_{i}$  PIi = personal income of the United States in 1972.

Column III is simply Column I divided by Column II. It may be written: ΤCi/PIi÷ΣΤCi/ΣΡΙi.

If for any given year the ratio of a state's tax capacity based on average use of all its taxable resources to its personal income is greater than the U.S. average, personal income underestimates the relative true tax capacity of that state. If the state's ratio of tax capacity to personal income is less than the U.S. average, personal income overestimates the relative tax capacity of the state. Thus Column III provides a multiplier which is used to correct personal income for differences in taxable resources among the states. Column IV uses this multiplier to adjust average 1975 personal income correcting for differences in tax capacity.

The final step in the process is to divide state-local own-source, tax collections in 1975 by the adjusted personal income figure. Using the adjustment process, the 1975 tax burden of New York, for example, is changed from 16.2% to 17.8% while that of Nevada is changed from 12.2% to 9%.

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Appendix B

### 1975 Income Adjustment

| States               | Reischauer's<br>1972 Tax<br>Capacity<br>Index¹ | Personal<br>Income<br>Index,<br>1972 | Multiplier<br>(column 1<br>÷ column 2) | Adjusted<br>Income,<br>1974–75 <sup>2</sup><br>(millions) |
|----------------------|--|--------------------------------------|--|---|
| States               | IIIUGA   | 1972                                 | · column 2)                            | (1111110113)  |
| Alabama              | 76   | 76.2                                 | 0.997                                  | \$16,003.5  |
| Alaska               | 131  | 115.8                                | 1.132                                  | 3,240.0   |
| Arizona              | 107  | 94.8                                 | 1.129                                  | 13,003.2  |
| Arkansas             | 81   | 73.1                                 | 1.108                                  | 10,431.1  |
| California           | 112  | 111.7                                | 1.002                                  | 133,469.8   |
| Colorado             | 106  | 100.9                                | 1.051                                  | 15,302.7  |
| Connecticut          | 112  | 119.5                                | 0.937                                  | 19,501.7  |
| Delaware             | 122  | 115.6                                | 1.055                                  | 3,976.7   |
| District of Columbia | 126  | 130.3                                | 0.967                                  | 5,134.7   |
| Florida              | 112  | 97.8                                 | 1.145                                  | 51,966.2  |
| Georgia              | 93   | 86.7                                 | 1.072                                  | 25,972.9  |
| Hawaii               | 116  | 113.9                                | 1.019                                  | 5,473.1   |
| Idaho                | 88   | 83.1                                 | 1.058                                  | 4,408.3   |
| Illinois             | 110  | 113.8                                | 0.967                                  | 70,399.0  |
| Indiana              | 97   | 96.6                                 | 1.005                                  | 29,209.5  |
| lowa                 | 99   | 93.5                                 | 1.059                                  | 17,647.5  |
| Kansas               | 101  | 98.8                                 | 1.023                                  | 13,487.9  |
| Kentucky             | 84   | 79.3                                 | 1.060                                  | 16.878.2  |
| Louisiana            | 93   | 78.7                                 | 1.182                                  | 20,897.8  |
| Maine                | 84   | 81.3                                 | 1.033                                  | 5,080.1   |
| Maryland             | 101  | 109.3                                | 0.924                                  | 23,554.5  |
| Massachusetts        | 98   | 107.6                                | 0.911                                  | 31,155.3  |
| Michigan             | 100  | 108.2                                | 0.924                                  | 50,742.3  |
| Minnesota            | 97   | 95.8                                 | 1.012                                  | 22,346.7  |
| Mississippi          | 71   | 69.1                                 | 1.027                                  | 9,483.5   |
| Missouri             | 96   | 95.0                                 | 1.010                                  | 25,464.6  |
| Montana              | 106  | 87.6                                 | 1.211                                  | 4,720.0   |
| Nebraska             | 106  | 96.4                                 | 1.100                                  | 9,708.0   |
| Nevada               | 156  | 114.7                                | 1.360                                  | 5,082.0   |
| New Hampshire        | 115  | 92.8                                 | 1.240                                  | 5,192.0   |
| New Jersey           | 112  | 117.7                                | 0.951                                  | 45,136.1  |
| New Mexico           | 92   | 77.3                                 | 1.190                                  | 6,120.9   |
| New York             | 106  | 116.9                                | 0.907                                  | 104,178.8   |
| North Carolina       | 87   | 83.9                                 | 1.037                                  | 26,961.5  |
| North Dakota         | 86   | 85.5                                 | 1.006                                  | 3,662.2   |
| Ohio                 | 96   | 100.8                                | 0.952                                  | 57,790.5  |
| Oklahoma             | 98   | 84.6                                 | 1.159                                  | 15,739.6  |
| Oregon               | 106  | 95.3                                 | 1.113                                  | 14,166.5  |
| Pennsylvania         | 95   | 99.9                                 | 0.951                                  | 64,304.3  |
| Rhode Island         | 88   | 99.7                                 | 0.883                                  | 4,606.6   |
| South Carolina       | 74   | 76.5                                 | 0.967                                  | 12,182.7  |
| South Dakota         | 89   | 81.4                                 | 1.094                                  | 3,651.6   |
| Tennessee            | 84   | 81.1                                 | 1.035                                  | 20,418.0  |
| Texas                | 99   | 89.9                                 | 1.101                                  | 71,727.3  |
| Utah                 | 83   | 82.2                                 | 1.010                                  | 5,698.7   |
| Vermont              | 102  | 86.6                                 | 1.178                                  | 2,643.7   |
| Virginia             | 92   | 96.2                                 | 0.956                                  | 26,357.0  |
| Washington           | 101  | 100.6                                | 1.004                                  | 21,034.9  |
| West Virginia        | 81   | 78.8                                 | 1.028                                  | 8,664.9   |
| Wisconsin            | 95   | 94.8                                 | 1.002                                  | 25,167.1  |
| Wyoming              | 125  | 93.3                                 | 1.340                                  | 2,904.9   |

<sup>1</sup>Op. cit., Reischauer, pp. 97-99.

<sup>2</sup>Resident personal income, 1974–75, times the multiplier.

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#### Appendix C

# Public Welfare Circuit-Breaker Plan, Amount of Federal Reimbursement to States for Excess Public Welfare Payments: 19751

| States with<br>Welfare Burden | Welfare Burden (State-Local Welfare Expenditures from Own Funds as Percent of State | State and Local<br>Welfare<br>Expenditures<br>from Own Funds | Excess Payments<br>Reimbursement<br>(in millions) |            |  |
|-------------------------------|---|--|---|------------|--|
| Above Median                  | Personal Income)  | (in millions)  | 100 Percent                                       | 50 Percent |  |
| District of Columbia          | 2.66%   | \$ 141.3   | \$ 100.9  | \$ 50.4    |  |
| Massachusetts                 | 2.16  | 739.4  | 479.5   | 239.8      |  |
| Michigan                      | 1.61  | 884.3  | 467.0   | 233.5      |  |
| California                    | 1.59  | 2,122.1  | 1;110.2   | 555.1      |  |
| Rhode Island                  | 1.58  | 82.2   | 42.5  | 21.2       |  |
| New York                      | 1.53  | 1,762.4  | 889.4   | 444.7      |  |
| Hawaii                        | 1.41  | 75.5   | 34.7  | 17.4       |  |
| Pennsylvania                  | 1.34  | 903.7  | 389.7   | 194.8      |  |
| Wisconsin                     | 1.29  | 324.3  | 133.5   | 66.8       |  |
| Minnesota                     | 1.25  | 274.8  | 107.1   | 53.6       |  |
| Vermont                       | 1.19  | 26.8   | 9.7   | 4.8        |  |
| New Hampshire                 | 1.13  | 47.5   | 15.7  | 7.8        |  |
| Maine                         | 1.12  | 55.2   | 17.8  | 8.9        |  |
| New Jersey                    | 1.09  | 519.4  | 158.8   | 79.4       |  |
| Illinois                      | 1.08  | 783.6  | 230.3   | 115.2      |  |
| Ohio                          | 1.02  | 621.3  | 159.9   | 80.0       |  |
| Oregon                        | 1.02  | 129.5  | 33.1  | 16.6       |  |
| lowa                          | 0.92  | 153.5  | 26.9  | 13.4       |  |
| Kentucky                      | 0.90  | 144.0  | 22.9  | 11.4       |  |
| Delaware                      | 0.90  | 33.9   | 5.3   | 2.6        |  |
| Maryland                      | 0.88  | 224.5  | 36.2  | 18.1       |  |
| Connecticut                   | 0.82  | 169.6  | 11.5  | 5.8        |  |
| Washington                    | 0.81  | 169.1  | 9.8   | 4.9        |  |
| Alaska                        | 0.77  | 22.0   | 0.2   | 0.1        |  |
| Colorado                      | 0.77  | 111.4  | 0.7   | 0.4        |  |
| Total                         |   | \$10,521.3   | \$4,493.3   | \$2,246.7  |  |

<sup>&</sup>lt;sup>1</sup>Excess payments means public welfare expenditures above those of the median state (above 0.76% of state personal income). Source: ACIR staff computations.

## what is ACIR?

The Advisory Commission on Intergovernmental Relations (ACIR) was created by the Congress in 1959 to monitor the operation of the American federal system and to recommend improvements. ACIR is a permanent national bipartisan body representing the executive and legislative branches of Federal, state, and local government and the public.

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Each Commission member serves a two year term and may be reappointed.

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