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JOINT COMMITTEE PRINT

STATE AND LOCAL BUDGET SURPLUSES
AND THE EFFECT OF FEDERAL
MACROECONOMIC POLICIES

A STUDY

PREPARED FOR THE USE OF THE
SUBCOMMITTEE ON FISCAL AND
INTERGOVERNMENTAL POLICY
OF THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES



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LETTERS OF TRANSMITTAL

JANUARY 11, 1979.

To the Members of the Joint Economic Committee:

Transmitted herewith for the use of the members of the Joint Economic Committee and other Members of Congress is a study entitled "State and Local Budget Surpluses and the Effect of Federal Macroeconomic Policies."

This study was funded by the Joint Economic Committee's Special Study on Economic Change (SSEC). The SSEC is charged with the responsibility of providing a long-range analysis of the Nation's economy and its implications. This is the first SSEC study completed to date and it will be followed by numerous studies on other aspects of our economy and its future.

The views expressed in this study should not be interpreted as representing the views or recommendations of the Joint Economic Committee or any of its members.

Sincerely,

RICHARD BOLLING,
Chairman, Joint Economic Committee.

JANUARY 8, 1979.

HON. RICHARD BOLLING,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: I am pleased to transmit herewith a study prepared for the Special Study on Economic Change entitled "State and Local Budget Surpluses and the Effect of Federal Macroeconomic Policies." The study was conducted by Prof. Edward M. Gramlich of the University of Michigan with assistance provided by Michael Wolkoff.

The study analyzes the magnitude and meaningfulness of State and local budget surpluses for determining Federal programs and policies. In addition, Professor Gramlich evaluated the effectiveness of the countercyclical programs. The study indicates that while the macro-stimulative effects of these programs are limited, they are an important source of recession insurance for State and local governments.

I am hopeful that this study will prove useful to Congress in formulating future policies.

The views expressed in this study are the author's and do not necessarily reflect the views of the subcommittee members.

Sincerely,

WILLIAM S. MOORHEAD,
*Cochairman,
Subcommittee on Fiscal and Intergovernmental Policy.*

JANUARY 3, 1979.

HON. WILLIAM S. MOORHEAD,
Cochairman, Subcommittee on Fiscal and Intergovernmental Policy,
Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR COCHAIRMAN MOORHEAD: Transmitted herewith is a study entitled "State and Local Budget Surpluses and the Effect of Federal Macroeconomic Policies." The study was prepared by Prof. Edward M. Gramlich with assistance provided by Michael Wolkoff.

The study analyzes the State and local budget surplus in the aggregate and further differentiates between the State surpluses, local surpluses, and those exclusively urban.

Finally, the study examines the effect of the countercyclical programs on the national economy.

The committee is grateful to Roy Bahl of the Maxwell School, Syracuse University, George Peterson of the Urban Institute, and Robert Reischauer of the Congressional Budget Office for their assistance and suggestions in reviewing this study.

This study was conducted under the direction of Deborah Norelli Matz of the committee staff and George D. Krumbhaar, Jr., of the Special Study on Economic Change.

Sincerely,

JOHN R. STARK,
Executive Director, Joint Economic Committee.

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STATE AND LOCAL BUDGET SURPLUSES AND THE EFFECT OF FEDERAL MACROECONOMIC POLICIES

By Edward M. Gramlich*

Recent fiscal policy decisions have been overwhelmed by an astounding fact: In calendar 1977, the aggregate State and local government budget surplus reached the remarkable level of \$29 billion. This was \$11 billion greater than the next highest surplus on record (in 1976), and only the fourth time in history that the surplus exceeded \$8 billion. When combined with the fact that the Federal budget was in deficit by \$50 billion in the same year, all of those justifications for Federal revenue sharing for States and localities, for categorical aid, or for urban aid seemed to be turned on their head. Why should there be yet more aid from the biggest debtor government to some of the biggest creditor governments?¹

Of course, here, as elsewhere, things may not always be what they seem. There are essentially two problems in making policy decisions on the basis of the aggregate State and local surplus. The first is simply the fact that the aggregate surplus is an aggregate—it includes the financial accounts of both State and local retirement pension funds and general governments, it does not measure the status of the more relevant operating budget of States and localities, and it could mask different movements in the budgetary positions of States, localities urban governments, and individual urban governments. Even though the aggregate surplus is very high, when all appropriate adjustments are made it may be that the incidence of fiscal crises among certain governments is just as great as it ever was. The second problem is that both State and local Federal budgets have always been very cyclical, and 1978 just happened to be a very good year for States and localities and a relatively bad one for the Federal Government. If this situation is a temporary one, again it will ultimately prove unwise to base long-term aid policy decisions on these temporary movements.

This paper will expand and elaborate on both of these points. Its aim is to see to what extent the recently developing surplus position in the State and local accounts should change opinions about the prevalence or magnitude of fiscal crises in this sector. In trying to achieve this aim, it will cover the two points raised above—the relatively factual one of identifying exactly where the surpluses are and the more complicated one of examining movements in the surplus, and in other budgetary items, over time and in response to macroeconomic variables and Federal policy changes. The primary focus of the paper will be on relatively short-term indicators of fiscal health such as the budget surplus, and not on those complex factors that make for the

*Professor of economics, University of Michigan, Ann Arbor. Michael Wolkoff has provided invaluable assistance with the research work for this paper.

¹ All the numbers in this paragraph, and most throughout the paper, use the national income accounts budgetary concepts, as described and presented in periodic issues of the Survey of Current Business. These numbers have standardized the Federal and State and local accounts, and made them in turn consistent with the accounts for the rest of the economy.

economic decline of certain jurisdictions. It would be possible to write a companion paper on economic decline, but that would indeed be a different paper.

WHERE ARE THE SURPLUSES?

Before examining recent changes in the budgetary position of States and localities, it is well to sound a note of caution. Focusing on such relatively short-term measures of fiscal health as the budget surplus, as this paper does, is not the same as focusing on economic decline. Growing vibrant cities can have deficits and stagnant or declining ones can have surpluses. When any government has a surplus that is high by historical standards, it means no more than that the Government is accumulating financial assets at an extraordinary rate. To be sure, this is a good omen, and since it is not necessary for the Government to continue accumulating at this pace forever, a high surplus is a leading indicator of future rapid growth in expenditures, tax cuts, or slowing of tax rate increases. All of these results are positive ones, and all should some day make the jurisdiction a more desirable place to live. But one should be wary of reading any more significance than that into temporary budget surpluses—they may not last for long, and their importance relative to the longrun factors that make for economic decline in certain areas could be rather modest.

The Aggregate State and Local Surplus

With these caveats in mind, we begin by examining the movements in the budgets for States and localities that are causing all the commotion. The time series numbers for this overall aggregate surplus are given in column 1 of table 1. There it can be seen very clearly that something interesting is happening. Before 1972, the aggregate surplus was usually a small number, never exceeding \$4 billion. Then there was a burst to around \$13 billion in 1972–73, followed by a slackening off and then a much greater burst that ultimately resulted in a \$29 billion surplus in 1977.

TABLE 1.—STATE AND LOCAL SURPLUSES—AGGREGATE, GENERAL GOVERNMENT, AND SOCIAL INSURANCE FUND
[In billions of current dollars]

Calendar year:	Aggregate surplus	General government	Social insurance funds
1960.....	0.1	-2.2	2.3
1961.....	-.4	-2.8	2.4
1962.....	.5	-2.1	2.6
1963.....	.5	-2.4	2.8
1964.....	1.0	-2.2	3.2
1965.....	.0	-3.4	3.4
1966.....	.5	-3.5	4.0
1967.....	-1.1	-5.9	4.8
1968.....	.3	-5.0	5.3
1969.....	2.1	-3.7	5.9
1970.....	2.8	-4.0	6.8
1971.....	3.7	-3.8	7.5
1972.....	13.7	5.6	8.1
1973.....	13.0	4.1	8.9
1974.....	7.6	-2.9	10.5
1975.....	5.9	-6.2	12.1
1976.....	18.4	3.9	14.5
1977.....	29.2	13.7	15.5

Source: Survey of Current Business, various July issues, table 3.4.

The surpluses given here come from the national income accounts (NIA) budgets prepared by the Department of Commerce, and are part of an intricate accounting framework, that shows the net saving of dissaving of all sectors of the economy. In this NIA framework the State and local sector is indeed saving, and this high saving forces the Federal Government to dissave more, other things equal, to maintain a given level of stimulation of overall spending demand. Focusing on this number as at least partial justification for continued deficits at the Federal level, as the Council of Economic Advisers has recently done, is perfectly proper.² Focusing on it as an indicator of the financial health of State and local governments may be very improper.

In examining the financial health issue, a first step must be to separate out the pension fund accounts for State and local employees from the operations of general governments proper. The NIA includes both as part of the State and local sector, but the budget surplus of each means something radically different from the standpoint of fiscal health. The surplus of these pension funds, in column 3 of table 1, records the funds' inflow in the current period from the contributions of those State and local employees presently working, less the outflow of benefit payments (net of interest earnings) for retired State and local employees. That inflows exceed outflows, as they have by a steadily growing amount since 1960, could mean that the actuarial status of the funds position is improving, but more likely does not. Over the sixties and seventies, State and local employment has increased sharply, money wages have increased sharply, and the postretirement benefits conferred at any level of wages have increased sharply. All factors imply that pension fund gross benefits will be rising over time, at fairly substantial rates. Were the funds to be financed on an actuarial basis, as at least many of them are, the wage contributions for these higher benefits must be made now. Obviously when that happens, current-day contributions will exceed current-day benefit payments (based on employment, wage levels, and labor contracts of some time ago), and the pension funds will run a surplus. But the question is: Will this surplus be great enough to preserve the actuarial health of the funds? The surplus numbers tell us nothing whatever about this—we must know the other side of the equation. In fact, those who have looked at the matter carefully say that even these large and growing surpluses are not adequate to do so.³

Whatever these pension fund surpluses imply about the actuarial health of their trust funds, a second question regards their ownership. Aficionados of the NIA realize that there is an asymmetry in including pension funds in the governmental sector at all. For ownership purposes the NIA distinguishes between nongovernmental and governmental pension funds. The former are considered a form of deferred compensation of the employees of the firms, and are added directly into private personal income. But surpluses of governmental pensions, the largest of which is social security, are treated not as deferred compensation but as general saving for the sake of the public at large. While this treatment makes sense for social security, which is not

² Economic message of the Council of Economic Advisers to the Congress, Jan. 20, 1978.

³ See Alicia Munnell and Ann Connolly, "Funding Government Pensions: State-Local, Civil Service, and Military," in "Funding Pensions: Issues and Implications for Financial Markets," Federal Reserve Bank of Boston, 1976.

owned by any particular segment of the population, it does not make sense for governmental employees retirements funds such as the State and local pension funds. These are owned by State and local employees every bit as much as private pension funds are owned by workers of those firms, and the State and local pension surpluses, whatever they mean in actuarial terms, should probably be entered into private personal income and not even included in the governmental accounts.⁴

Hence both because the actuarial meaning of State and local pension funds surpluses is unclear and the ownership is unclear, these surpluses do not tell us anything at all about the financial health of State and local general governments as usually understood by the term. For these purposes we must subtract pension fund surpluses from the total State and local surpluses, and look only at the general government surplus, as is done in column 2 of table 1. We note already that the level of the surpluses given there is a good deal less dramatic, never exceeding \$14 billion and only once exceeding \$6 billion. As it happens, however, the \$14 billion was realized in the last year of our data period, so we must look into things more carefully to see if it heralds the beginning of a new trend.

The second refinement of the gross numbers is to focus on the current versus the capital budget. Most State and local governments actually work under a current operating budget constraint, whereby revenues must cover current operating expenditures. Expenditures for capital assets, mainly new construction, need not be financed out of current revenues, however, because these expenditures result in tangible assets that will yield utility over time, and it then becomes fair to ask taxpayers to pay for them over time. When capital assets are financed by debt, the retirement of debt, and not new construction, represents the current expenditures.

Three steps must be taken to modify the NIA budgets to put them in current operating budget terms. Construction expenditures, which the NIA has already treated as an expenditure, can be added to the NIA surplus because, for operating budget purposes, these expenditures should never have been deducted.⁵ Then, for similar reasons, Federal grants for construction must be deducted from revenues, or subtracted from the surplus. Finally, long-term debt retirement, the approximate total for the current expenses occasioned by capital projects, must be added to expenditures or subtracted from the surplus. These operations are all given in table 2, and the resultant numbers, in the right hand column of the table, show the NIA analog to the general government operating budget surplus of States and localities. Since construction expenditures always exceed the other adjustments, the operating budget is always more in surplus than the total general government account in the left column. But since construction expenditures fell during 1976-77 while the other adjustment items continued their normal trend rise,⁶ the margin narrows then, and the path of the operating budget shows much less of an increase. The operating surplus was still high by historical standards in 1977, but not nearly to the extent shown by the other concepts. Whereas the

⁴ Indeed the flow-of-funds accounts of the Federal Reserve Board already makes exactly this adjustment.

⁵ Since nonconstruction capital expenditures such as the purchase of land or existing structures were not even included in the NIA accounts to begin with, they should not be added.

⁶ The magnitude of the fall is disguised by this table, which gives numbers in current dollars. In real terms the drop is much more significant. The reasons for it are something of a mystery, one that I have already discussed at some length in "State and Local Budgets, the Day After It Rained: Why Is the Surplus So High?", *Brookings Papers on Economic Activity*, 1:1978.

basic NIA surplus had increased \$19.9 billion from its low point in 1975, the operating surplus only increased by \$13.7 billion.

TABLE 2.—CURRENT AND CAPITAL ACCOUNTS, STATE AND LOCAL GENERAL GOVERNMENT BUDGETS

[In billions of dollars]

Calendar year:	NIA surplus	Plus construction expenditures	Minus		Equals operating surplus
			Construction grants ¹	Long-term debt retirement	
1960.....	-2.2	12.3	2.5	3.6	4.0
1961.....	-2.8	13.4	2.7	3.8	4.1
1962.....	-2.1	14.1	2.9	4.2	4.9
1963.....	-2.4	15.5	3.4	4.7	5.0
1964.....	-2.2	16.7	3.9	5.1	5.5
1965.....	-3.4	18.4	3.9	5.3	5.8
1966.....	-3.5	20.4	4.2	5.7	7.0
1967.....	-5.9	22.5	3.9	5.9	6.8
1968.....	-5.0	24.6	4.3	6.3	9.0
1969.....	-3.7	24.9	4.0	6.8	10.4
1970.....	-4.0	25.1	4.5	7.3	8.3
1971.....	-3.8	26.2	4.9	8.0	9.5
1972.....	5.6	26.4	4.6	8.5	18.9
1973.....	4.1	28.4	5.1	9.6	17.8
1974.....	-2.9	33.8	6.7	10.6	13.6
1975.....	-6.2	34.7	8.2	11.4	8.9
1976.....	3.9	31.7	9.1	12.2	14.3
1977.....	13.7	31.9	10.0	13.0	22.6

¹ Grants for highways, and water and sewer.

Source: Survey of Current Business, various July issues, tables 3.4, 3.7, and 3.14; and Bureau of the Census, Governmental Finances, various years.

States and Localities

We turn now from an examination of the overall State and local surplus to a breakdown by States and localities. The two types of governments are usually grouped in policy discussions, but for many purposes they should not be. In almost every dimension one can think of, local governments are much more vulnerable fiscally to forces beyond their control than are States. In the first place, local governments are legal creatures of the States, and it is statutorily impossible for many of them to impose certain types of taxes, exceed tax rate limitations, or take other fiscal actions without State approval. Moreover, localities have become increasingly dependent on grant aid from State governments, which now provide over 35 percent of their total revenue. Since localities obviously are smaller, it is much more likely for taxpayers to "vote with their feet" by leaving localities, the ultimate constraint that the private sector places on the actions of the public sector. Finally, it has historically been harder for localities to share in the rises in income than States because they rely to a much greater extent on the relatively insensitive residential property tax,⁷ though recent rapid rises in the relative price of housing has forcefully eliminated this consideration in the past few years for most jurisdictions. All considerations except the last in recent years imply that localities are more likely to be threatened by deficits than are States, and that localities will have less that they can do to eliminate deficits in the short run. When talking about deficits and surpluses, then, it makes sense to deal with the two types of governments separately.

⁷ In 1976 localities raised only 24.6 percent of their revenues by income, sensitive income and sales taxes and 63.7 percent by the more slowly growing residential property tax. States, on the other hand, raised 91 percent of their own revenues by income and sales taxes and only 1.4 percent by property taxes. The balance of the revenue in each case comes from miscellaneous charges, fees, and other taxes.

The split between State and local budgets is shown in table 3. Because it is difficult, indeed strictly impossible, to disaggregate Federal and State construction grants, both sets of numbers are in terms of the total general government surplus, current as well as capital. Including the capital items here does much less damage than might be supposed for the numbers are not yet even available for 1977, one of the years of the mysterious drop in construction. Between 1975 and 1976, the aggregate State and local surplus (third column) rose by more than \$10 billion, and we can at least see how that rise was split between States and localities, though we cannot examine the composition of the subsequent \$10 billion change between 1976 and 1977.

TABLE 3.—GENERAL GOVERNMENT BUDGETS COMBINED, STATE AND LOCAL
[In billions of current dollars]

Calendar year:	Combined ¹			State ¹			Local ¹		
	Receipts	Expenditures	Surplus	Receipts	Expenditures	Surplus	Receipts	Expenditures	Surplus
1060.....	46.5	48.7	-2.2	25.6	25.5	0.1	30.3	32.6	-2.3
1961.....	50.3	53.1	-2.8	27.6	28.0	-0.4	32.9	35.3	-2.4
1962.....	54.6	56.7	-2.1	30.1	30.3	-0.2	35.6	37.5	-1.9
1963.....	59.0	61.4	-2.4	32.8	33.4	-0.6	38.3	40.0	-1.7
1964.....	64.8	67.0	-2.2	36.1	36.1	0.0	42.0	44.1	-2.2
1965.....	70.1	73.5	-3.4	39.5	40.0	-0.5	45.7	48.6	-2.9
1966.....	79.1	82.6	-3.5	46.3	45.9	0.4	50.3	54.1	-3.9
1967.....	86.9	92.8	-5.9	50.3	52.6	-2.3	56.5	60.1	-3.6
1968.....	100.1	105.0	-4.9	59.2	59.7	-0.5	63.5	68.0	-4.6
1969.....	111.8	115.5	-3.7	66.6	67.4	-0.8	71.2	74.1	-2.9
1970.....	125.9	129.9	-4.0	74.0	77.9	-3.8	81.8	82.0	-0.2
1971.....	142.7	146.5	-3.8	83.9	88.2	-4.3	92.5	92.0	0.5
1972.....	166.6	161.0	5.6	100.5	97.2	3.2	103.8	101.5	2.4
1973.....	181.4	177.3	4.1	107.6	107.7	-0.1	115.9	111.7	4.2
1974.....	196.5	199.9	-2.9	116.6	120.4	-3.8	126.8	125.9	0.9
1975.....	219.8	226.0	-6.2	130.7	135.5	-4.8	141.0	142.4	-1.4
1976.....	246.6	242.7	3.9	146.6	145.3	1.3	156.4	153.8	2.6
1977.....	274.3	260.6	13.7	(²)	(²)	(²)	(²)	(²)	(²)

¹ The State plus the local surplus will equal the combined surplus. But this is not true of receipts and expenditures because of State aid to localities, which is counted as a State expenditure and a local receipt, thus making both totals off by the same amount.

² Not yet available.

Source: Survey of Current Business, May 1978, tables 1 and 2. pp. 16-17.

The numbers provide at least a few surprises. It is commonly alleged that the recent surpluses are possessed largely by State governments, but that allegation is both untrue and misleading. Before 1970 the normal surplus levels were not far apart (\$-0.5 for States and \$-2.9 for localities), and there were rarely significant deviations from either normal level. Then in 1970-71 the State surplus dropped while the local surplus increased. In 1972-73, the first major epoch of positive surpluses, State government surpluses averaged \$1.6 billion, \$5.6 more than their depressed level of the previous 2 years; while local surpluses averaged \$3.3 billion, \$3.1 more than their inflated level of the previous 2 years. But relative to levels in the sixties, local surpluses were actually *higher* than State surpluses. This pattern was repeated almost exactly in 1976, the second major positive surplus epoch. States realized a surplus of

\$1.3 billion, again \$5.6 more than the again depressed level of the previous 2 years but only \$1.8 billion above the normal level of the sixties. Localities received a \$2.6 billion surplus, just \$2.8 more than in the previous 2 years but \$5.5 more than in the sixties. If the conclusions from these numbers are at all startling, it is in what they do not show. At least at this level of detail it appears that state surpluses have both dropped and recovered more in the recent swings, but that localities are the governments that are doing better in the seventies than in the sixties. For States it is the other way around.

Urban and Nonurban Local Governments

We next take a more careful look at the fiscal situation of urban and nonurban local governments. Since these data are not recorded in the NIA, we must switch over to Census of Government (CG) concepts, which are not quite comparable in either item-by-item coverage or in timing.⁸ Table 4, which gives the numbers, shows what table 3 showed: That there has been an improvement in the overall local surplus position in the seventies relative to the sixties, and in particular since calendar 1972-73. We also notice that the pattern is the same for urban governments as for the aggregate, though the improvement is not as great. Over the 1972-76 period the combined local general government surplus in the CG was \$3.3 billion, \$4.8 billion more than in the previous 12-year period. For urban governments the 1972-76 average was \$0.3 billion, \$1.1 billion more than in the previous 12 years. Hence while local governments in the aggregate are doing better in the seventies than they did in the sixties, in surprising contrast to the fate of State governments, the improvement is a good deal less dramatic for the local governments of urban areas.

TABLE 4.—URBAN AND TOTAL LOCAL GENERAL GOVERNMENT BUDGETS¹

[In billions of current dollars]

Calendar year:	All local governments				Urban governments ²			
	Own revenues	Grants	Expenditures	Surplus	Own revenues	Grants	Expenditures	Surplus
1960-61	25.0	10.7	37.2	-1.5	9.9	2.3	13.2	-1.0
1961-62	26.7	11.5	39.3	-1.1	10.5	2.4	13.5	-0.6
1962-63	28.5	12.5	42.3	-1.3	10.8	2.6	13.7	-0.3
1963-64	30.3	13.7	45.0	-1.0	11.5	3.0	14.9	-0.4
1964-65	32.3	14.9	48.4	-1.2	12.4	3.3	16.0	-0.3
1965-66	35.4	17.5	53.7	-0.8	13.1	3.9	17.4	-0.4
1966-67	38.3	20.0	59.5	-1.2	14.2	4.8	19.3	-0.3
1967-68	40.9	21.9	64.0	-1.2	15.3	5.6	21.6	-0.7
1968-69	45.9	25.5	73.5	-2.1	16.8	6.9	24.5	-0.8
1969-70	51.4	28.9	82.6	-2.3	18.7	7.5	27.7	-1.5
1970-71	57.5	33.9	94.2	-2.8	20.9	9.3	31.9	-1.7
1971-72	63.7	38.8	103.8	-1.3	23.5	10.9	35.7	-1.3
1972-73	70.5	47.1	113.8	3.8	25.7	14.1	39.0	.8
1973-74	76.7	53.9	124.7	5.9	27.5	15.8	42.8	.5
1974-75	84.4	60.7	143.1	2.0	30.2	18.9	49.0	.1
1975-76	93.2	68.0	159.7	1.5	33.1	21.2	54.4	-1.1

¹ The numbers do not agree with those in table 2 because of timing differences (these are for fiscal years), conceptual differences, and the exclusion or inclusion of various transactions. Table 3.18 in the July Survey of Current Business reconciles the 2 sets of figures.

² General governments of all municipalities with population in excess of 25,000. Does not include special districts

Source: Bureau of the Census, Local Government Finances and City Government Finances, various years.

⁸ Table 3.18 in the July issues of the Survey of Current Business provides a reconciliation

Surpluses can arise either because of rapidly growing revenues or slowly growing expenditures, and it might be helpful to look behind these surpluses to see if any interesting differences emerge. In particular, it is alleged that many cities are reaching the limit of their taxing capacities; that further rises in tax rates will either violate State restrictions or, if legally possible, drive out businesses and high-income taxpayers and result in a decline in total revenues. To examine this hypothesis, revenues must be decomposed into own revenues and grants from higher levels of government, as is also done in table 4. The results do confirm this hypothesis, but only weakly. Since the low point in the surplus (1970-71), the own revenues of all local governments have increased by 62 percent, whereas those of urban governments have increased only 58 percent. Interestingly, however, these disparities were almost exactly offset by differential patterns in grant aid growth received from both the State and Federal Governments. The total revenues of urban governments increased 80 percent over this period while those of all local governments, reflecting the lesser amount of aid received in nonurban areas, increased by the slightly lower total of 77 percent.⁹

The final look at the numbers concerns *which* urban general governments are running the surpluses. Table 5 shows budgetary surpluses, gross and per capita, for the 20 largest U.S. cities—all those with a city population in excess of 500,000. These surpluses are given both for the overall general government account, as in column 1 of table 2 and tables 3 and 4; and for the operating budget, as in column 5 of table 2. As the overall numbers showed, the gross budget is often in slight deficit for these large city governments—indeed only Milwaukee, San Francisco, and St. Louis ran surpluses by this measure in 1975-76. It was explained above, however, that a deficit by this measure is not necessarily alarming if it results from large construction expenditures and an accumulation of tangible public capital. Adding these construction expenditures and deducting debt retirement as above (capital grants are not available and must be ignored) leads to the more meaningful numbers in the third and fourth columns. There it can be seen that there is one large and highly publicized deficit spending government, New York City, but only one. Columbus, Chicago, Cleveland, and Washington cannot be said to be in very safe fiscal positions, but all of the other large cities had an operating surplus of at least \$35 per capita in 1975-76, with likely somewhat higher totals in 1976-77 when the overall State and local surplus was higher.

⁹ Both of these relationships hold if looked at over a longer period, say 1960-76. The percentages for own revenues are 272.8 percent for all local governments and 234.3 percent for urban governments; for total revenues an increase of 355 percent for both classes of governments.

TABLE 5.—GENERAL GOVERNMENT SURPLUS OF THE 20 LARGEST CITIES, 1975-76

City	Populations (thousands)	Overall surplus (millions) ¹	Operating surplus (millions) ²	Operating surplus per capita
New York.....	7,481.6	-\$715.4	-\$844.9	-\$112.9
Chicago.....	3,099.4	-65.1	6.5	2.1
Los Angeles.....	2,727.4	-105.8	95.7	35.1
Philadelphia.....	1,815.8	-8.5	79.1	43.6
Detroit.....	1,335.1	-4.9	61.5	46.1
Houston.....	1,326.8	-48.7	67.9	51.2
Baltimore.....	851.7	-28.8	222.4	261.1
Dallas.....	812.8	-14.2	32.0	39.4
San Antonio.....	773.2	-120.8	45.6	59.0
Indianapolis.....	714.9	-15.7	26.0	36.4
Washington.....	711.5	-195.6	17.0	23.9
Honolulu.....	705.4	-20.3	49.8	70.6
Milwaukee.....	665.8	20.0	30.1	45.2
San Francisco.....	664.5	10.4	70.2	105.6
Cleveland.....	638.8	-43.0	8.5	13.3
New Orleans.....	559.8	-6.6	40.7	72.7
San Jose.....	555.7	-2.1	31.4	56.5
Columbus.....	535.6	-15.1	.1	.2
Jacksonville.....	535.0	-70.3	48.5	90.7
St. Louis.....	525.0	.7	18.4	35.0

¹ General revenue less general expenditures less contributions to retirement systems, including city run water enterprises and utilities.

² Overall surplus plus capital outlays less long-term debt retirement. Since there are no data on capital grants, this number will slightly overstate the operating surplus.

Source: "City Government Finances in 1975-76," table 5.

This brief look at the fiscal position of various cities should not be interpreted as dismissing the problem of the urban fiscal crisis, which still exists in many cities and at many times. For one thing, the whole paper has stressed the temporary nature of fiscal changes: At the depths of the 1974-75 recession many more cities were experiencing fiscal problems. Perhaps a better way to deal with the temporary nature of the budgetary position for individual cities would be to look at 3-year accumulated deficits of various cities, as Philip Dearborn has recently done. By that measure, New York, Cleveland, and Columbus are joined by Philadelphia in the list of cities experiencing fiscal trouble, but Chicago is removed from the list. Of the smaller cities, Pittsburgh and Buffalo are experiencing particularly acute fiscal problems right now.¹⁰ On the high side, as I explain later on in the paper, those cities now experiencing high surpluses will no doubt eventually see them disappear, as they accumulate assets to desired levels and are then able to initiate programs for new spending or tax cuts. And in a more basic sense, as explained at the outset, I am presently only looking at the short-run fiscal position of various cities.

¹⁰ See Philip H. Dearborn, "Elements of Municipal Financial Analysis, Part II: Budget Performance," special report, First Boston Corp., 1977. His data are summarized in "City Need and the Responsiveness of Federal Grant Programs," Subcommittee on the City of the House Committee on Banking, Finance, and Urban Affairs, Washington, 1978, p. 28. A more careful look at some of these cities is taken by George Peterson, "Fiscally Distressed Cities: What Is Happening to Them?" statement before the Joint Economic Committee and the Subcommittee on the City, July 1978.

Many large cities in the South, Northeast, and Midwest have pressing social needs; almost all Northeastern cities and many Midwestern ones are experiencing long-term economic decline.¹¹ That these cities may be running short-term budget surpluses must not obscure this basic fact, and the fiscal position of these cities says little or nothing about their underlying long-term need for aid.

The upshot of this factual excursion is then, as perhaps could have been expected, to muddy the waters. Starting with the clear and apparently meaningful level and change in the aggregate State and local surplus, we find that the level is lower and not nearly so remarkable once pension fund accounts are eliminated from consideration, and that the change becomes less remarkable when budgets are put in more relevant operating budget terms. Disaggregating further, much of the recent improvement is for State government budgets, but then State budgetary positions were the ones that worsened in the preceding 2 years. Local governments in aggregate are doing better now than in the recession year of 1975, also in the seventies as compared to the sixties. The latter statement can be made of urban governments as well, but the improvement is not as great. And, when looking at individual city governments, most appear to be in pretty good shape and only one, the notorious (from a budgetary standpoint) New York City, is in bad shape. The bottom line, if one can be gleaned from this welter of numbers, is that most meaningful indicators of fiscal health or urban fiscal health are showing a welcome improvement these days, but the improvement is not nearly as dramatic as the overall State and local surplus numbers might indicate, and it is not universally shared among cities or even among large cities.

THE IMPACT OF MACROECONOMIC VARIABLES AND FEDERAL POLICIES

The fact that budgetary positions change over time, as has been amply demonstrated in the previous section, suggests that the budgets of State and local governments are likely to respond in a rather complex manner to outside changes. In this section we examine this issue in more detail: How will the aggregate general government budget respond to various independent changes in the economy and in Federal policy? Understanding these responses will enable us to measure better any damage caused by autonomous economic events, any benefits of countervailing government policies, and the meaning of short-run changes in the surplus of the sort we have observed above.

To measure the response of government budgets to outside stimuli it is necessary to fit a regression model explaining how budgets change. The regressions serve the same purpose here as elsewhere in economics—that is, by including various independent variables one can at least hope to measure the separate causal impact of each variable. In principle the regression models could be fit either using time series observations for aggregations of governments or cross section observations using individual governments or lesser aggregations, and in the professional literature they are done either way.¹²

¹¹ See Subcommittee on the City, *ibid.*

¹² For good surveys of this literature, see Stephen M. Barro, "The Urban Impacts of Federal Policies. Volume 3, Fiscal Conditions," particularly ch. 6, Rand Report R-2114-kF/HEW, April 1978; and Ray D. Whitman and Robert J. Cline, "The Fiscal Impact of Revenue Sharing in Comparison With Other Federal Aid," Urban Institute Working Paper, 1977.

In this section I present the results of one such empirical examination of budgetary response, using time series quarterly observations on the aggregation of State-local general government expenditures, revenues, and the surplus. As yet this model has not been extended to the recently published NIA time series separations of State and local accounts or to the CG separations of urban and nonurban local governments, though both extensions should be feasible.

The details of the econometric estimation have been given elsewhere and will not be repeated here.¹³ The underlying conception of the effort is to use consumer demand theory to show how an aggregation of State and local governments would respond to changes in community disposable income, relative prices, demographic changes, interest rates, stocks of assets, and Federal grants of various types by altering current and capital expenditures, taxes, and the budget surplus. The estimates have been made subject to three separate accounting or economic constraints:

(a) *The adding up constraint.*—Any variable that directly enters the State and local budget (such as Federal grants) must be exactly allocated to all other uses of funds; while any variable that does not directly enter the budget must have effects that cancel each other throughout the budget.

(b) *Stock adjustment.*—For both physical capital and financial asset stocks, the source of utility is the stock itself, not the budgetary flow. In the long run the model behaves as a stock adjustment model in this regard, with both net investment and net financial saving being only temporarily altered in response to some change in an independent variable.

(c) *Grant distinction.*—Since an important use for the model is to distinguish the effects of different types of grants, grants are treated differently according to their restrictions. Open ended price reduction grants (such as for public assistance) are viewed as altering relative prices, unconditional block grants (such as general revenue sharing) are viewed as altering budgetary resources but not relative prices, and the standard close-ended categorical grants are viewed as altering both relative prices and budgetary resources.

The results of estimating this model quarterly from 1954 through 1977 are given in tables 6 and 7. Table 6 shows how the budgetary variables of the model are derived from the national income accounts data for State and local governments. Table 7 presents coefficient estimates and fit statistics for an estimate of the model that explicitly incorporates the budgetary constraints. Blanks in the table indicate cases where the independent variable was not statistically significant and was therefore constrained to have a coefficient equal to zero.

¹³ The model is an updated version of that given in "State and Local Budgets the Day After It Rained," *op. cit.* That article gives most of the relevant details.

TABLE 6.—*Variable definitions*

1. Take NIA government accounts and eliminate all social insurance trust fund items.

2. Define:

- (a) Taxes (T) equal to all taxes plus surplus of government enterprises.
 (b) Discretionary spending for wages (E_1) equal to total wage bill payments less public service employment grants (PSE) less mandated wage expenditures on other categorical grants

$$\left(\frac{1}{m_1} G_1, \text{ where } m_1 \text{ is the Federal share}\right).$$

- (c) Discretionary spending for other current purchases and transfers (E_2) equal to total spending for these purposes less grant-mandated expenditures

$$\left(\frac{1}{m_2} G_2\right).$$

- (d) Discretionary spending for construction (E_3) equal to total spending less grant-mandated expenditures

$$\left(\frac{1}{m_3} G_3\right).$$

- (e) Exogenous budgetary inflows (X) equal to general revenue sharing (GRS) plus countercyclical revenue sharing (CRS) less interest and debt service payments (D) less mandated expenditures on all Federal categorical grants

$$\left(\sum_{i=1}^3 \left(\frac{1}{m_i} - 1\right) G_i\right).$$

- (f) Financial surplus, or budget surplus (S) equal to

$$X + T - \sum_{i=1}^3 E_i.$$

- (g) Financial stocks (F) equal to $S + F_{-1}$.

- (h) Capital stocks (K) equal to

$$E_3 + \frac{1}{m_3} G_3 + (1 - \delta) K_{t-1},$$

where $\delta = .005$ is the quarterly depreciation rate.

- (i) Local public works (LPW) as a dummy variable building up from 1976 II to 1976 IV and then remaining at 1.0 through 1977 IV.
 (j) Income (Y) equal to GNP less Federal taxes.
 (k) Wage rates (W) as an index of the average compensation rate for State and local employees (1972=1.0).
 (l) Demographic terms as the proportion of families headed by females (FEM) and the constant demographic weight unemployment rate (UR).
 (m) Total State and local expenditures (EXP) equal to

$$\sum_{i=1}^3 \left(E_i + \frac{1}{m_i} G_i\right) + \text{PSE}.$$

TABLE 7.—*Constrained estimates of the model*

All variables defined in table 1, and estimated as first differences of the variable in real per capita terms (except W , which is first difference of the real wage and demographic terms which are simple first differences). t ratios below coefficients (n.c. if not calculated)

Independent variables	E_1	E_2	E_3	$-T$	$F_{-1}+S$
$F_{-1}+X$		0.0327 (3.5)		0.0580 (4.8)	0.9093 (46.3)
$0.67 Y + 0.33 Y_{-1}$	0.0269 (4.2)	0.0150 (2.0)	0.0287 (2.7)	-0.0922 (-10.0)	0.0216 (n.c.)
$0.25 \sum_{i=0}^3 PSE_{-1}$	-1.0690 (-3.9)				1.0690 (3.9)
$\frac{1}{m_1} G_1$	-0.9356 (-25.7)				0.9356 (25.7)
$\frac{1}{m_2} G_2$		-0.9453 (-22.3)			0.9453 (22.3)
K_{-1}	0.0261 (8.1)	0.0306 (7.1)	-0.0202 (-3.0)		-0.0365 (n.c.)
W	-150.6 (-5.1)				150.6 (5.1)
LPW			-20.92 (-3.7)		20.92 (3.7)
FEM	-3.964 (-1.6)	8.228 (2.4)			-4.264 (n.c.)
UR	0.9692 (2.2)	1.600 (2.8)			-2.5692 (n.c.)
\bar{R}^2	0.92	0.88	0.05	0.28	0.95

Responses to Macroeconomic Variables

The first use to which the model is put is to investigate the response of expenditures, revenues, and the budget surplus to outside macroeconomic variables such as recession and inflation. The response of State and local budgets to a recession is examined by comparing two simulations of the model: One that reads in actual values of GNP and the unemployment rate over the 1974-77 period and one that reads in hypothetical values of GNP and the unemployment rate, as if the recession of 1975 had never happened. Specifically, the hypothetical simulation assumes that the unemployment rate remained constant at its early 1974 value of 5 percent and that real GNP grew at an annual rate of 3.5 percent throughout the period. Differences between the two simulations are given in table 8, both in gross NIA budgetary totals (as in table 2) and as a percent of current dollar totals. The last numbers are given so that one can adjust these results to whatever concept of governments is desired—State governments, local govern-

ments, urban governments, etc. There are obvious potential problems in assuming that the average response will be the same for all such governments, but until the model is refit to these smaller groups that is all that can be done, and I proceed on the basis that rough orders of magnitude are better than no information at all.

TABLE 8.—IMPACT OF THE 1975 RECESSION ON STATE AND LOCAL BUDGETS, ACTUAL LESS HYPOTHETICAL VALUES

Calendar quarter	Current dollars (billions)				Percent of current value		
	Current expenditures	Capital expenditures	Taxes	Surplus	Current expenditures	Capital expenditures	Taxes
1974: 1-----	-0.8	-0.2	-1.6	-0.6	-0.5	-0.6	-1.0
2-----	-1.6	-0.5	-3.2	-1.1	-0.9	-1.5	-2.1
3-----	-2.1	-0.8	-4.9	-2.0	-1.2	-2.4	-3.2
4-----	-2.4	-1.2	-6.5	-2.9	-1.4	-3.6	-4.3
1975: 1-----	-2.5	-1.5	-8.4	-4.4	-1.2	-4.3	-5.1
2-----	-0.9	-1.4	-5.8	-3.5	-0.4	-4.0	-3.5
3-----	-0.5	-1.0	-4.6	-3.1	-0.2	-2.9	-2.8
4-----	-1.4	-1.1	-5.5	-3.0	-0.7	-3.2	-3.3
1976: 1-----	-1.3	-0.9	-4.0	-1.8	-0.6	-2.8	-2.1
2-----	-1.2	-0.9	-3.8	-1.7	-0.5	-2.8	-2.0
3-----	-1.2	-0.9	-3.8	-1.7	-0.5	-2.8	-2.0
4-----	-1.4	-1.0	-4.3	-1.9	-0.6	-3.2	-2.3
1977: 1-----	-1.9	-1.1	-4.3	-1.3	-0.8	-3.4	-2.1
2-----	-1.4	-1.0	-3.3	-0.9	-0.6	-3.1	-1.6
3-----	-1.3	-1.0	-3.0	-0.7	-0.5	-3.1	-1.5
4-----	-1.2	-1.0	-2.8	-0.6	-0.5	-3.1	-1.4

Source: Simulations of model given in table 7.

The simulations indicate that the recession caused only a very slight drop in current expenditures, averaging less than 1 percent of prevailing levels. The drop was so modest because of two conflicting events: The decline in income did make people feel worse off and reduce tax revenues and desired public expenditures, but the rise in unemployment also pushed States and localities into more countercyclical public spending than they otherwise would have undertaken. There were press reports at the time of many layoffs in areas where the economic decline was severe. According to these equations, however, either many of those employees would have been laid off anyway, or layoffs by some governments were offset by the hiring of others to minimize the impact on the overall total. Because the countercyclical employment effect was found to be absent for construction (table 7), the recession induced drop in expenditures was larger in percentage terms here, though still modest in dollar terms.

On the tax side, revenues are seen to fall automatically because of the reduced income level in the recession, but because the surplus and stock of financial assets also fall, to rise to some degree to restore these stocks. The net effect is a drop averaging \$4.4 billion, or 2.5 percent of prevailing tax revenues.¹⁴ The surplus is also seen to drop in the short run (notice that the largest drops in 1975 match the period when the overall surplus dropped), and then gradually recover toward its no change position as the reduced stocks of financial assets force governments to stop dissaving so much. In terms of stocks, by the

¹⁴ Because these estimates include tax increases induced by falling surpluses, the cyclical changes in taxes shown here are a good deal less than those estimated by the Council of Economic Advisers in the 1977 Economic Report of the President, p. 76.

end of 1977 the recession had cost State and local governments almost \$8 billion in financial assets.¹⁵

The model can also be used to measure the effect of inflation on State and local budgets. If the inflation is such that all prices and wages increase at the same rate, the model is fit so that there is no effect at all on real spending and saving behavior. But if various wages or prices rise at different rates, there will be.

A first set of calculations examines the effect of a rise in real wages. If the wage paid public employees were immediately boosted 10 percent at the start of quarter 1, real compensation payments would fall by \$4.5 billion, 4.5 percent of their 1977 level. But since the percentage fall in real compensation is less than the rise in relative wages (demand is inelastic), compensation in money terms would immediately rise by \$6.9 billion, as is shown in column 1 of table 9. This would result in a short-term reduction of the surplus of \$6.9 billion and a concomitant reduction in financial asset stocks. The fall in asset stocks would then lead to cutbacks in money expenditures and rises in taxes of amounts that grow over time, as is shown in table 9. In the very long run the rise in wages would lead to a decumulation of assets of almost \$19 billion (\$75.8/4), which again prevents further dissaving and leads to only a \$4.4 billion rise in expenditures, all of which is financed by higher taxes. Were these amounts prorated to all governmental units, the longrun expenditure and tax increases are on the order of 2 percent, as is also shown in table 9.

TABLE 9.—IMPACT OF A 10-PERCENT RISE IN REAL PUBLIC SECTOR WAGES ON STATE AND LOCAL BUDGETS, 1977 WAGE LEVELS

Quarter:	Current dollars (billions)				Percent of current value	
	Expenditures	Taxes	Surplus	Stocks ¹	Expenditure ²	Taxes ³
1.....	6.9	-----	-6.9	-----	2.6	-----
2.....	6.7	0.4	-6.3	-6.9	2.6	0.2
3.....	6.5	.8	-5.7	-13.2	2.5	.4
4.....	6.3	1.1	-5.2	-18.9	2.4	.5
5.....	6.1	1.4	-4.7	-24.1	2.3	.7
6.....	5.9	1.7	-4.2	-28.8	2.3	.8
7.....	5.8	1.9	-3.9	-33.0	2.2	.9
8.....	5.7	2.1	-3.6	-36.9	2.2	1.0
9.....	5.6	2.3	-3.3	-40.5	2.1	1.1
∞.....	4.4	4.4	-----	-75.8	1.7	2.1

¹ At end of previous period. To find actual values, divide by 4.

² Percent of total general government expenditures. Expenditure elasticities would be computed on the basis of compensation expenditures, a number only 53 percent as large.

³ Percent of tax revenues, or own receipts of State and local governments.

Source: Computations based on regressions of table 7.

A next set of calculations examines the case where a relative price increase makes states and localities better off. Say that there is an independent 10-percent rise in the real value of residential property at the start of quarter 1, much as may have been experienced in California recently. In the short run property taxes will rise by approximately 10 percent (assuming immediate assessment changes), or \$6.3 billion in 1977. This goes into the surplus, leads to an accumu-

¹⁵ The \$8 billion number is derived by cumulating the surplus changes, and then dividing by 4 to convert the simulations' numbers to annual rates. It is not so easy to convert this number to percentage terms without knowledge of the basic financial stocks, but it is about 13 percent of the financial stock buildup in operating budgets that otherwise took place over the 4-year period. (See table 2.)

lation of asset stocks of an amount that ultimately reaches over \$17 billion (\$69.2/4), makes further saving unnecessary, and enables expenditures to increase by \$2.3 billion, an amount financed exactly by the initial tax increase of \$6.3 billion less subsequent cuts of \$4.0 billion. This time the longrun expenditure and tax increases are on the order of 1 percent.

In all of these simulations the surplus is carrying a lot of the budgetary adjustment in the short run, and none in the long run. The first property emerges from the econometric results (not described in much detail here), where it is seen that the surplus is usually the only item in the budget that offsets direct movements caused by some macroeconomic shock.¹⁶ The second follows from the underlying assumption of the model that asset stocks and net flows are the proper term to measure the utility gain to taxpayers from surplus accumulation. Both propositions together illustrate dramatically the point made at the outset of the paper: that in a cyclical world it is risky to read too much meaning into movements in the budgetary surplus, because these movements are both inherent and inherently temporary.

TABLE 10.—IMPACT OF A 10-PERCENT RISE IN REAL PROPERTY VALUES ON STATE AND LOCAL BUDGETS, 1977
PRICE LEVELS

Quarter	Billions of current dollars			Percent of current value		
	Expenditures	Taxes	Surplus	Stocks ¹	Expenditures ²	Taxes ³
1.....		6.3	6.3			3.0
2.....	0.2	5.9	5.7	6.3	0.1	2.9
3.....	.4	5.6	5.2	12.0	.2	2.7
4.....	.6	5.3	4.7	17.2	.2	2.6
5.....	.7	5.0	4.3	21.9	.3	2.4
6.....	.9	4.8	3.9	26.2	.3	2.3
7.....	1.0	4.6	3.6	30.1	.4	2.2
8.....	1.1	4.4	3.4	33.7	.4	2.1
9.....	1.2	4.2	3.0	37.1	.5	2.0
∞.....	2.3	2.3	69.2	.9	1.1

¹ At end of previous period. To find actual values, divide by 4.

² Percent of total general Government expenditures.

³ Percent of total tax revenues, only 30 percent of which come from the property tax.

Source: Computations based on regressions of table 7.

Responses to Federal Aid

Next I use the model to examine the response of State and local budgets to the three types of Federal aid that were passed as part of the economic stimulus program of 1977:

- (a) Countercyclical revenue sharing (CRS).
- (b) Public service employment (PSE).
- (c) Local public works (LPW).

In each case I will introduce the program to the budgetary model described above, see how the model responds, and then discuss what these simulated results do and do not mean about the program.

The CRS bill that expired on September 30, 1978, featured payments of approximately \$2 billion per year to State and local governments whenever the overall unemployment rate exceeded 6 percent, with the payments being based on a State or locality's excess (of 4.5 percent) unemployment and its general revenue sharing payment. Use of the

¹⁶ The econometric tests are described in much more detail in "State and Local Budgets the Day After It Rained," *op. cit.*

money was absolutely unconstrained, and thus CRS should have a first approximation operated much like general revenue sharing in this overall model. I simulate its effect by altering the independent variable that includes all exogenous budgetary inflows (X). To make the effects large enough to be noticeable, these simulations will assume a \$10 billion CRS program was passed at the beginning of quarter 1.

TABLE 11.—IMPACT OF A \$10 BILLION RISE IN REVENUE SHARING GRANTS ON STATE AND LOCAL BUDGETS

Quarter	Billions of current dollars			Percent of current values		
	Expenditure	Taxes	Surplus	Stocks ¹	Expenditures ²	Taxes ³
1-----	0.3	-0.6	9.1	-----	0.1	-0.2
2-----	.6	-1.1	8.3	9.1	.2	-.5
3-----	.9	-1.6	7.5	17.4	.3	-.8
4-----	1.2	-2.0	6.8	24.9	.5	-1.0
5-----	1.4	-2.4	6.2	31.7	.5	-1.2
6-----	1.6	-2.8	5.6	37.9	.6	-1.4
7-----	1.8	-3.1	5.1	43.5	.7	-1.5
8-----	1.9	-3.4	4.7	48.6	.7	-1.6
9-----	2.1	-3.7	4.2	53.3	.8	-1.8
∞-----	3.6	-6.4	-----	100.3	1.4	-3.1

¹ At end of previous period. To find actual values, divide by 4.

² Percent of total general Government expenditures.

³ Percent of total tax revenues.

Source: Computations based on regressions of table 7.

The estimates, given in table 11, indicate that in the very short run only 3 percent of the money is used for increased spending and 6 percent for tax reduction. The remainder pads surpluses in the short run, and only gradually gets paid out as higher expenditures and lower taxes as financial asset stocks cumulate. This shortrun volatility of the surplus is how the model accounts for the aforementioned bulge in the State-local surplus in 1972-73, when general revenue sharing was first introduced. In the long run the results imply that 36 percent of the money is used for higher expenditures and 64 percent for tax reduction, a ratio that shows somewhat less expenditure stimulation than most other articles on the topic but more than would be expected from a standpoint of pure economic theory.¹⁷

To this point descriptions of the results of these simulations have focused on the behavior of the surplus, but they can also be assessed from another important perspective. As a broad statement, the fiscal stimulus program of 1977 tried to boost the national economy with programs that work through State and local governments. If these programs, of which CRS was one, caused an immediate boost in State and local spending or a cut in taxes, the indirect approach might prove to be successful. But what if the main short-term effect was to pad surpluses? This seems to indicate that CRS was not an effective way to manipulate the national economy.

Such a conclusion is warranted as far as it goes, but there are two possible drawbacks: One econometric and one philosophical. The econometric one is that the simulations infer the impact of CRS from that of exogenous budgetary inflows of all sorts. This is not incorrect, for CRS is precisely an unconstrained exogenous inflow, and there is little else one could do in practice, at least in a time series context, for

¹⁷ That the estimate does not agree with this pure theory does not make it wrong: possibly the theory should be amended. The whole matter is discussed in detail in Gramlich, "Intergovernmental Grants: A Review of the Empirical Literature," in W. E. Oates, ed., "The Political Economy of Fiscal Federalism," Lexington Books, 1977.

CRS grants have existed only in the last year of the estimation period. But it may still be risky to make such an inference. Since CRS exists only in high unemployment years and is paid only to governments of areas experiencing high unemployment, there is a much greater likelihood that CRS funds will be used to maintain programs that would otherwise have been killed in a cyclical downturn, or for preventing tax rate increases, than there is for the other exogenous inflows. If such is the case, the macrostimulation benefits of CRS will be greater than those noted in table 11.

There is a more basic point. CRS is a cyclical program, and as such only one of its possible benefits is as an automatic aggregate demand stabilizer. The other conceivable benefit is as a form of economic recession insurance for State and local governments. More and more these governments rely on cyclically sensitive income and sales taxes, and indeed even property taxes could be more cyclically sensitive now with more up-to-date reassessments. On the expenditure side, the growth of unions, wage contracts, and tenure arrangements implies that wage expenditures are becoming more difficult to alter in the short run, and the growth of public assistance transfers indicates these expenditures may be also. Hence it could be argued that the State and local sector, or at least certain State and local governments, are now more vulnerable to the business cycle and need a form of recession insurance to prevent costly interruptions of services in a downturn. Whether this argument is at all convincing depends on whether various State and local governments do save for cyclical exigencies, whether this saving will be reduced by a Federal cushion, and whether the politics of CRS enables cyclical funds to go where they are most needed. Each of these is a complex question that cannot be dealt with here. What can be said is that looking at macrostabilization is only part of the story. Whatever the macrostimulation benefits, the program still could be quite valuable as a means of providing recession insurance for State and local governments in times of fiscal stress.

The next program is PSE. This program is simulated in like manner, by assuming another \$10 billion grant went into effect at the beginning of quarter 1. According to estimates of tables 7 and 12, the so-called displacement effect is very strong, leading to no impact of PSE on total expenditures after four quarters.¹⁸ But if grant displacement is strong, State and local government's must necessarily experience a rise in their surplus, and this addition to financial stocks then encourages spending and tax reduction as with revenue sharing. Hence the reaction of the surplus is much the same as with CRS, except delayed by the four quarters it takes States and localities to reduce their normal hiring.

¹⁸ Essentially as found by G. E. Johnson and J. D. Tomola, "The Fiscal Substitution Effect of Alternative Approaches to Public Service Employment Policy," *Journal of Human Resources*, winter 1977. For criticism and a review of other studies, see M. E. Borus and D. S. Hamermesh, "Study of the Net Employment Effects of Public Service Employment—Econometric Analyses," a paper prepared for the National Commission for Manpower Policy, 1978.

TABLE 12.—IMPACT OF A \$10,000,000,000 RISE IN PUBLIC SERVICE EMPLOYMENT GRANTS, ON STATE AND LOCAL BUDGETS

Quarter:	Current dollars (billions)				Percent of current values	
	Expenditures	Taxes	Surplus	Stocks ¹	Expenditures ²	Taxes ³
1.....	7.4		2.6		2.8	
2.....	4.8	-0.2	5.0	2.6	1.8	-0.1
3.....	2.3	-0.4	7.3	7.6	.9	-0.2
4.....	-1	-0.8	9.3	14.9		-0.4
5.....	.2	-1.4	8.4	24.2	.1	-0.7
6.....	.4	-1.9	7.7	32.6	.2	-0.9
7.....	.7	-2.3	7.0	40.3	.3	-1.1
8.....	.9	-2.7	6.4	47.3	.3	-1.3
9.....	1.1	-3.1	5.8	53.7	.4	-1.5
∞.....	3.2	-6.9		117.2	1.2	-3.3

¹ At end of previous period. To find actual values, divide by 4.

² Percent of total general government expenditures.

³ Percent of total tax revenues.

Source: Computations based on regressions of table 7.

The fiscal impact assessment of PSE is only slightly more positive than for CRS. In the very short run, expenditures are stimulated, but by four quarters this stimulative effect has vanished. Whether this indicates that PSE should be scrapped depends again on some statistical and some philosophical considerations. On the statistical side, PSE has changed in character over time. The early PEP programs of the Nixon administration gave way in 1975 to the relatively unconstrained CETA grants. These became more tightly constrained to try to insure employment increases by the Carter administration in early 1977. Since the numbers given here estimate only one set of coefficients for PSE, they may be inaccurate if there has been an important shift in the program.

A second problem is the fact that an estimated 26 percent of the CETA money simply passes through local governments on the way to nonprofit agencies known as community based organizations. Due to a soon-to-be-remedied accounting mistake, the NIA included this money in the PSE grants but not anywhere in budget expenditures, implying that the displacement effect will inevitably be overstated.

Finally we turn to the basic point. PSE is in part a stabilization program and in part a program aimed at improving the competitive lot of disadvantaged low wageworkers. Let's say there is 100 percent displacement. Then, if the PSE wage ceilings are enforced, the program presumably is making this change—stimulating relatively low wage PSE employment and reducing relatively high wage regular employment. This transfer of workers' producer surplus goes from high wage regular employees to low wage or underemployed PSE employees, and again could be very desirable from a social standpoint. As with CRS, macrostimulation is not everything, and the degree to which high displacement is used as evidence against PSE may be quite excessive.

The final grant program is LPW. This grant was sufficiently unique that I did not even try to incorporate the variable into the regular model, but simply used a dummy variable in the statistical estima-

tions of table 7. The reader may be surprised to find a negative coefficient: How can a grant to stimulate local construction actually reduce it? The answer, given in more detail and (some say) more melodramatically in my 1978 paper, can be found in a careful examination of the details of the bill.¹⁹ This bill gave free (no-match) money to State and local governments for construction projects that could be started within 90 days, with the intragovernment allocation of funds to be decided administratively. The Economic Development Agency was flooded with applications totalling \$24 billion for the initial \$2 billion of funds, and the unfunded governments were not told to go back and now build their project but to wait until next year (1977) when another \$4 billion would be forthcoming. In such circumstances it becomes quite rational for governments to hold up projects that would have otherwise been started to see if Federal funds are forthcoming, and quite possible for LPW to have a negative shortrun effect on construction. The actual estimated reduction of table 2 of \$6 billion in nominal terms is indeed moderate both in relation to the queue of unfunded projects and the otherwise mysterious drop in State and local construction in 1976-77.

As with the macroeconomic shocks, therefore, all Federal stimulus programs are seen to have had an important impact on the surplus in the short run, for CRS because of simple timing delays and for the others because normal expenditures appear to have been displaced by the grant. In terms of understanding why the surplus is behaving erratically, Federal grant policy is seen to be an important cause. A second, and important, implication of this finding is that none of those grant programs are seen to be very effective in stimulating the overall economy. The programs themselves may have other justifications, but if the Federal Government is to follow any realistic countercyclical policy, it *must* do more than simply increase grant aid to State and local governments. Plain old permanent cuts in income tax rates remain the most effective way to stimulate the economy by fiscal policy.

SUMMARY AND CONCLUSIONS

The message of the paper can be laid out very simply. The surplus that now exists in State and local budgets is not all it's cracked up to be, once appropriate adjustments in the data are made, and even then is probably a rather transitory phenomenon. Regarding the data, once pension accounts and the recent mysterious drop in construction are excluded from consideration and attention is focused on the more meaningful operating budgets of States and localities, the surplus is neither as high or as rapidly changing as the basic accounts would have indicated. States are now getting more of the increased surplus than localities, but that phenomenon seems to reflect mainly the fact that State budgetary positions are more volatile: comparisons of trend changes between the seventies and sixties indicate that localities are now in a better position relative to their past. This better relative position is even shared by urban governments, though by a rather small margin.

¹⁹ See "State and Local Budgets the Day After It Rained," *op. cit.*

Regarding behavior, simulations with a quarterly econometric model of State and local behavior indicate that whether the outside shock comes from a macroeconomic change (inflation or recession) or a Federal grant policy change, the surplus always seems to bounce around in the short run. It may rise today, but it seems likely to fall tomorrow. This is another reason for not altering policy judgments of underlying fiscal or economic needs because of short-term bulges in the surplus. Regarding Federal grant policies, the fact that the surplus bears a lot of the shortrun response when, say, new funds are given to States and localities also indicates that giving those funds may not be a particularly efficacious way to stimulate the overall economy in a downturn. Alterations in grants to local governments are no substitute for permanent tax rate changes as fiscal stabilization devices, though they may still be valuable as a way of conferring cyclical recession insurance for State and local governments.

