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Bahl, Roy, Edward M. Cupoli, and Joseph Liro. "Forecasting The Local Government Budget." Proceedings of The Annual Conference on Taxation Held Under the Auspices of The National Tax Association-Tax institute of America 70 (1977): 278–87. http://www.jstor.org/stable/42911741.

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FORECASTING THE LOCAL GOVERNMENT BUDGET

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Source: *Proceedings of the Annual Conference on Taxation Held under the Auspices of the National Tax Association-Tax Institute of America*, 1977, Vol. 70 (1977), pp. 278-287

Published by: National Tax Association

Stable URL: https://www.jstor.org/stable/42911741

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EIGHTH CONCURRENT CONFERENCE SESSION

REVENUE ESTIMATING—A NEW LOOK

WEDNESDAY, NOVEMBER 9, 1977, 2:00 P.M.

JAMES R. NUNNS, *presiding.*

FORECASTING THE LOCAL GOVERNMENT BUDGET*

ROY BAHL, EDWARD M. CUPOLI AND JOSEPH LIRO

I. INTRODUCTION

The steady deterioration of the financial position of many large cities, the New York City collapse and the new wariness of municipal security investors in its aftermath, and the fiscal importance of the decline in the Northeastern economy have renewed interest in long-term budgetary forecasting for local governments. This interest has been further stimulated by the new premiums which slower national growth has placed on public financial management, the long-term nature of expenditure decisions regarding pensions and debt, and the growing awareness of the need for long-term fiscal analysis by bond analysts as well as State and Federal fiscal planners.[1]

Unfortunately, the problems with forecasting local government budgets are substantial and the state of the art is primitive. The purpose of this paper is to make a modest extension to this literature by developing and applying a relatively straightforward local government budgetary forecasting model. In the next section we present a cursory review of the types of fiscal forecasting techniques most commonly employed. An alternative forecasting model will then be presented in the context of a set of projections for Syracuse, New York—the case under study. The projected budgetary position of the City of Syracuse is then estimated under varying assumptions about the values of the exogenous variables that drive the model. It should be emphasized that this research is preliminary and that the forecast for the Syracuse case reflects no more than an example of the sensitivity of the projections to a wide range of assumptions.

II. THE STATE OF LOCAL GOVERNMENT BUDGETARY FORECASTING

A survey of the 28 large cities and six counties constituting the membership of the Urban Consortium identified extrapolation of past revenue trends as the primary technique used to predict future revenues.[2] Only four cities, New Orleans, Columbus, San Diego, and New York City reported any significant use of mathematical and/or econometric models to forecast revenues.

Though revenue forecasting methodologies by extrapolation may take several forms, the techniques have in common a relating of the forecast variable to time. They also have many problems in common. By projecting on a basis of past trends, it is implicitly assumed that all events of the past will continue to occur in the future, e.g., discretionary rate and base changes, inflation rates, economic growth, administrative procedure, taxpayer compliance, etc. Such a set of implicit assumptions is much too simplified to make the results of such a forecast useful for policy purposes.

Apart from extrapolation, the most commonly used technique for forecasting state and local government revenues involves estimating a revenue-income elasticity. A forecasting methodology

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based on an estimate of the elasticity of a tax must first adjust actual revenue data to "clean" the series of discretionary base or rate changes and then may directly estimate the yield elasticity or separately estimate its rate and base elasticity components. From this type of analysis, it is possible to examine the sensitivity of revenue growth to changes in the level and structure of personal income based on historical relationships. Hence, the effects of discretionary changes, inflation, and slower income growth may all be accounted for. There are, however, problems with the elasticity approach: it is difficult to clean the series of discretionary changes, time-series data on personal income in a local area are not readily available, and projections of personal income through the forecast period are often times not reliable even if available. Moreover, the technique is much more applicable to state government sources such as the personal income tax than to local government sources such as the property tax. In the latter case, the identification of a discretionary change becomes conceptually difficult.

An alternative to the use of extrapolation or elasticities in revenue forecasting is an econometric approach which explicitly specifies relationships between tax revenues and/or bases and a set of exogenously and/or endogenously determined independent variables. Econometric models may be either a set of single independent equations for each revenue category or a set of simultaneous equations that allow for the interaction between taxes and economic activities.

Simultaneous equation models have several advantages as a forecasting methodology. The flexibility provided by a multiple equation system can allow for greater realism in modeling revenue functions and such models are easily adaptable for simulation by changing the exogenous variables within the several equations over a range of values.[3] However, the advantages of simultaneous models do not come without additional costs. Data requirements are in most instances massive and a substantial investment must be made to build, estimate, and update the model. As a result there are few examples of the use of this technique at the local government level. The City of New Orleans uses an econometric technique to forecast revenues, but does not allow for feedback effects between taxes and economic activity.[4]

There is virtually no literature on expenditure forecasting at the state and local government level. One might argue that there has been more work done on the tax side because it is conceptually easier to separate "a discretionary" from "an automatic" component of tax revenue growth than to make the same disaggregation on the expenditure side. In one sense there would seem to be a much greater discretionary element to expenditure growth given the political nature of the budget making process. On the other hand, there surely is a distinction among expenditures according to their "controllability" hence, a procedure paralleling that used on the tax side might be appropriate.

Expenditure forecasts by local governments have been primarily of three forms: extrapolation, based on an assumption that revenue availability will dictate expenditure level, and based on some form of economic model. The most common procedure is extrapolation which assumes a continuation of past trends. Of the Urban Consortium survey respondents, 79 percent used extrapolation, 14 percent reported even less systematic ad hoc techniques, and only two cities—New Orleans and Columbus—reported the use of an economic model.[5] An overwhelming majority of the local governments surveyed did not take into account any supply or demand considerations nor did they explicitly consider changes in population, income, employment or prices.

The second approach implicitly assumes that the problem is essentially one of projecting revenues and that this will dictate the resulting expenditure level. Accordingly, there is no need to independently project expenditures. This approach has been taken in New Orleans, and has been used as an underlying assumption for the government sector in some regional econometric models.

The third approach involves the development of independent forecasting equations for the expenditure side. This may involve a formal model, but more often has taken the form of a sensitivity analysis based on a set of accounting identities which disaggregate expenditures by object. This approach has also been used in studies of New York City and Binghamton.[6] In these studies a model was formulated to forecast current expenditures by object depending explicitly on changes in employment, real wages, inflation, pension contribution rates, the proportion in which labor and supply inputs are combined and real transfer payments. This is a sensitivity approach allowing one to project expenditures given different assumptions about values of the above factors.

A pioneering study which developed a complete economic model for local government expenditure forecasting was Claudia Scott's work on the City of New Haven.[7] Her projections are based on a number of variables which influence future spending levels: (1) Population variables; projections of the size, age and racial composition of the population, (2) Salary variables; projections of the levels or ratio of increase for public employees in various salary and wage classes and (3) Services variables; projections of the way in which the level of service or manner in which services are provided will change, given some assumed change in the demand for services.

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III. The Model

The model presented here is one in which revenues and expenditures are independently forecast to generate an estimated budgetary position. In the sense that the results may show a projected deficit, the results are less indicative of the probable outcome than of the need for policy actions.

Expenditure Projections

The methodology used to forecast the future level of expenditures for current functions is basically a public employment approach. In this format, the aggregate spending forecast follows from assumptions concerning the level of inputs which the local government will employ and the price paid for the service of these factors.[8] An advantage of this model is that it is relatively simple and can be easily altered to make forecasts under varying assumptions concerning input levels and their costs. In addition, it may be used to examine the sensitivity of these forecasts to discretionary actions such as changes in wage rates or benefit packages. Operationally, therefore, total expenditures in the base year are disaggregated into the various distinct components of spending for which data are available, and forecasts of total spending are then made on the basis of assumptions about changes in the levels of these components.

Expenditure projections are made using a simple computational procedure.[9] First, total spending in the base year (the most recent year) is disaggregated by function. Then, current spending in each department (or for each function) is disaggregated into labor (L), nonlabor (NL), fringe benefits (FR), and miscellaneous expenditures (Misc).

$$TE = L + NL + FR + Misc \tag{1}$$

Labor expenditure is further disaggregated into that for permanent (SW) and that for part time or temporary (T) help.

$$L = SW + T \tag{2}$$

In each department, employment is divided into relatively homogeneous job classifications. In general, these are administrative, delivery or uniformed, laborer and clerical. Average salaries in the base year are then calculated for each job classification in each department. Total personal service spending may then be represented by:

$$SW = \sum_j \sum_i E_{ij} W'_{ij} P \tag{3}$$

where i represents each of the departments, j the job categories, E is full time employment, W′ the real wage rate and P a price index which is 1.00 in the base year.[10] This equation can be used to forecast total personal service spending.

Having forecasted total personal service spending, we then need to forecast total current spending. As the first step, nonlabor spending is disaggregated into a price component and a quantity component.

$$NL = P \sum_i Q_i \tag{4}$$

It is assumed that public sector output is produced with a fixed factor production function. This means that growth in units of nonlabor inputs will parallel the growth in public labor employment in each function, irrespective of the relative prices of these inputs. That is,

$$Q_i = \alpha_i \sum_j E_{ij} \tag{5}$$

where the constant term is α_i is simply nonlabor expenditures per employee in the base year. Operationally, with P equivalent to unity in the base year:

$$NL_{oi} = \alpha_i \Sigma E_{ijo} \tag{6}$$

where O is the base year.

and,

$$NL_{ti} = P_t \left[\alpha_i \sum_j E_{ijt} \right] \tag{7}$$

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and finally,
$$TE_t \sum_i \left[\sum_j E_{ijt} W'_{ijt} P_t + P_t \alpha_i \sum_j E_{ijt} \right] \quad (8)$$

It is assumed that the effect of inflation is identical on labor and the nonlabor inputs within each function and that inflation has the same relative effect on all functional categories. That is, we assume the same rate of inflation for all objects of expenditure.

Retirement expenditure forecasts should be treated separately from other personal service expenditures because of the special problems posed by such outlays. In fact, no general approach can be described here because the determinants of retirements outlays will vary widely from city to city. In those cases where the city is known to have been consistently financing retirement obligations according to a sound actuarial approach and where there are no expectations of either substantial benefit improvements or salary increases substantially above those assessed in the actuary's cost calculation, the analyst probably won't be far off by using the past ratio of retirement contributions to wages (i.e., the contribution rate) as the determinant of future contributions.

But where a city is operating its retirement system on a pay-as-you-go basis or where, as is more likely, the city has a nominally funded arrangement but unfunded accrued liabilities are growing rather consistently, the problem of knowing what retirement outlays might have to be even for years immediately ahead is nearly intractable without the services of a pension specialist.[11]

This leaves but one important component of expenditures, debt service, which is projected directly from repayment schedules and poses no particular difficulties.

The expenditure projection requires assumptions about:

- the rate of inflation
- public employment increase
- wage rate increase
- fringe benefit increase

In this study, we have used Congressional Budget Office (CBO) estimates of income and price level growth as they define a "baseline" and a "less vigorous" expansion path.[12] Public employment is assumed constant, and wages are assumed to grow only at the inflation rate (i.e., real wage levels remain constant).

Revenue Projections

The revenue projection method applied here departs less drastically from the standard practices outlined above. We first disaggregate base year receipts into component parts and then make alternative assumptions about the automatic growth in the tax base or discretionary changes in tax rates or grant formulae. The assumptions yield alternative forecasts of total receipts.

The three major revenue sources—sales taxes, property taxes, and grants—are projected using different techniques. State and federal aids are projected on a basis of past trends and various, ad hoc, assumptions about the growth in intergovernmental aids relative to state personal income growth. The property tax is projected on a basis of past trends in assessed valuation growth and alternative assumptions about changes in the statutory rate and the equalization rate. Sales taxes are forecast from an assumed constancy of the ratio of taxable consumption to personal income and regional personal income projections.

IV. Projected Budgetary Position

In this section we present projections covering the period 1977–1982 for each major revenue component and for total city revenues. Three sets of projections are presented. They are based on the *baseline* and the *less vigorous* Congressional Budget Office (CBO) projections for GNP and prices,[13] with the *baseline* set being predicated on higher growth rates for GNP and price. The annual percentage growth assumptions for each projection path are reported in Table 1.

It is also necessary to make some assumption about the growth in the Syracuse economy relative to the nation or to New York State. Because the Syracuse SMSA share of national income has remained approximately constant in the past few years, we will assume that the Syracuse metropolitan area income growth will mirror the national pattern. Likewise, for want of a better alternative, the national inflation rate (either CBO's baseline rate or its less vigorous rate) will be assumed to apply locally.

Property Tax

Property taxes are projected on a basis of the growth in assessed value and projected growth in expenditures considered outside the tax limit (an institutional constraint specific to cities in

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TABLE 1

SYRACUSE: ALTERNATIVE ASSUMPTIONS FOR RATES OF REAL INCOME AND PRICE LEVEL GROWTH: 1976-1982
(annual percent increase)

	1977	1978	1979	1980	1981	1982
Baseline Assumptions						
Real GNP	5.4	5.6	5.5	5.3	4.7	4.5
Prices	5.0	4.8	4.8	5.0	5.3	5.8
Less Vigorous Assumptions						
Real GNP	5.4	5.1	4.0	4.0	4.0	4.0
Prices	5.0	4.7	4.6	4.6	4.6	4.6

SOURCE: Congressional Budget Office, Five Year Budget Projections: Fiscal Years 1978-1982, Congress of the United States, 1976.

New York State). We assume that under our less vigorous assumption and the assessed valuation of city property for school and other city purposes grows at the 1969–75 average annual rate of 1.22 percent; the baseline assumption would have an annual rate of growth of 2.0 percent. A second assumption is that the state equalization rate will remain at its 1976 level of .37 through 1982. Support for this implicit assumption that the Syracuse property tax base will not respond markedly to rising prices is that the city is under intense pressure to revise *downward* what are argued to be overassessed values on many Central Business District (CBD) properties, which together constitute a sizeable proportion of the tax base.

A final assumption is that the city/school share of the property tax levy remains at the 1975 level throughout the projection period. Under our less vigorous set of assumptions presented in Table 2, property tax revenues will increase from $33.8 million in 1977 to $37.6 million in 1982—an increase of 11.1 percent, or an average annual increase of only 2.2 percent. This is about the same increment that was realized during the 1969–1975 period, and would increase the effective tax rate only marginally, from 2.5 percent in 1975 to 2.9 percent in 1982. The baseline projections (Tables 3 and 4) show a slightly higher rate of growth at 13.6 percent.

Sales Tax

In projecting sales tax revenues for 1977–1982, four assumptions are made. First, it is assumed that the county three percent sales tax rate as well as Syracuse's share of total county proceeds from the sales tax (39 percent) do not change over the period. Second, it is assumed that taxable consumption as a percentage of personal income in Onondaga County will remain relatively constant at about 50 percent. Third, it is assumed the taxable consumption increases at the same rate as nominal GNP in line with the CBO assumptions.

Using the CBO baseline income and price assumptions (Table 4), Syracuse's sales tax revenues are projected to grow by over $17.5 million, or 63.0 percent, from 1977 to 1982. In this case by 1982 sales tax receipts would be nearly as large as the property tax receipts. These results

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TABLE 2

SYRACUSE PROJECTIONS UNDER CBO LESS VIGOROUS ASSUMPTION
(in millions)

	1977	1978	1979	1980	1981	1982	Percent Growth 1977-82
Revenues	105.5	110.4	115.1	120.1	125.2	130.4	23.6
Property Tax	33.8	34.9	35.7	36.4	37.1	37.6	11.1
Sales Tax	21.1	23.2	25.2	27.4	29.7	32.3	52.7
Intergovernmental Aid	37.4	39.0	40.7	42.4	44.3	46.2	23.6
Other	13.1	13.4	13.6	13.8	14.1	14.3	9.2
Expenditures	103.2	107.1	111.8	116.5	121.2	125.0	
Education	36.4	38.2	39.9	41.6	43,4	45.3	24.4
Police	9.2	9.6	10.0	10.5	11.0	11.5	25.3
Fire	9.1	9.6	10.0	10.5	10.9	11.4	25.3
Streets	5.6	5.8	6.1	6.4	6.7	7.0	25.3
Fringe Benefits	19.6	20.9	22.2	23.3	24.6	26.0	32.6
Debt Services	7.5	6.6	6.5	6.3	5.9	4.3	-43.2
Other	15.7	16.4	17.2	17.9	18.7	19.5	24.2
Surplus (Deficit)	2.3	3.3	3.3	3.6	3.9	5.4	

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TABLE 3

SYRACUSE PROJECTIONS UNDER CBO BASELINE ASSUMPTION
(in millions)

	1977	1978	1979	1980	1981	1982	Percent Growth 1977-82
Revenues	105.6	110.8	116.2	122.0	128.1	134.8	27.7
Property Tax	34.0	35.1	36.1	37.0	37.9	38.6	13.6
Sales Tax	21.1	23.3	25.7	28.4	31.2	34.4	65.0
Intergovernmental Aid	37.4	39.0	40.8	42.7	44.8	47.3	26.6
Other	13.2	13.4	13.6	13.9	14.2	14.5	10.3
Expenditures	103.6	107.2	112.0	116.9	122.2	126.9	22.5
Education	36.4	38.2	39.9	41.7	43.8	46.0	26.2
Police	9.2	9.6	10.1	10.6	11.1	11.8	28.4
Fire	9.1	9.6	10.0	10.5	11.1	11.7	28.5
Streets	5.6	5.8	6.1	6.4	6.8	7.1	28.4
Fringe Benefits	19.6	20.9	22.2	23.3	24.6	26.0	32.6
Debt Services	7.5	6.6	6.5	6.3	6.0	4.3	-43.2
Other	15.7	16.5	17.2	18.0	19.0	20.0	27.2
Surplus (Deficit)	2.0	3.7	4.2	5.0	5.9	7.9	

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TABLE 4

SYRACUSE PROJECTIONS UNDER CBO BASELINE AND CBO REAL INCOME GROWTH ASSUMPTIONS
(in millions)

	1977	1978	1979	1980	1981	1982	Percent Growth 1977-82
Revenues	105.6	110.8	116.2	122.0	128.1	134.8	27.7
Property Tax	34.0	35.1	36.1	37.0	37.9	38.6	13.6
Sales Tax	21.1	23.3	25.7	28.4	31.2	34.4	65.0
Intergovernmental Aid	37.4	39.0	40.8	42.7	44.8	47.3	26.6
Other	13.2	13.4	13.6	13.9	14.2	14.5	10.3
Expenditures	106.3	113.7	122.5	131.8	141.8	151.7	42.6
Education	37.1	40.5	44.2	48.2	52.7	57.5	55.0
Police	9.9	10.9	12.0	13.2	14.5	15.9	60.0
Fire	9.9	10.9	12.0	13.2	14.5	16.0	60.9
Streets	5.9	6.3	6.9	7.4	8.1	8.8	49.3
Fringe Benefits	19.6	20.9	22.2	23.3	24.6	26.0	32.6
Debt Services	7.5	6.6	6.5	6.3	6.0	4.3	-43.2
Other	16.3	17.5	18.7	20.1	21.5	23.2	42.0
Surplus (Deficit)	(.7)	(2.9)	(6.3)	(9.8)	(13.7)	(16.8)	

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show that such growth in sales tax revenues would indeed be a major part of the solution to the fiscal problems of the city.

When the less vigorous income and price assumptions are used, sales tax revenues are projected to grow by only 52 percent.

Intergovernmental Aid

Intergovernmental aid consists of federal revenue sharing and state aid. State aid is comprised of state revenue sharing, municipal overburden aid, state school aid and mortage taxes. It is assumed that municipal overburden aid will remain constant at $2.5 million throughout the projection period. Using the CBO Baseline price assumptions intergovernmental revenues are projected to grow by over $9.9 million or 26.6 percent from 1977 to 1982 (Table 4). When the less vigorous price assumptions are used intergovernmental revenues are projected to grow by $8.8 million or 23.6 percent over the projection period.

Other Revenues

Other revenues consist primarily of departmental revenues, utilities tax, fees, charges, licenses, and unestimated revenues. These revenues were divided into one of two categories as being constant or inflation responsive. The results are presented in Tables 3 and 4.

Expenditures

In tables 2 and 3 we have assumed, with one exception, that *real wage rates* for city employees will remain constant through 1982.[14] The exception applies to teachers, who have an escalator clause in their contract. The clause provides teachers with an annual increase equal to the increase in the Consumer Price Index *in the previous year.* Our projections of teacher salaries assume that this adjustment arrangement will be continued during the 1977–1982 period.

Employment is assumed to remain constant for all departments and all job classifications throughout the period covered by the projections. The assumption of no-growth in employment is based on our projection model which essentially relates expenditure increases to increases in the *cost* of services provided. A combination of a slow-growing population, continuing declines in school enrollment, and severe budget constraints make the assumption of no-growth in employment seem reasonable.

Our projections of fringe benefit expenditures in the City of Syracuse for each of the next five years are based on estimates of these expenditures provided by the City of Syracuse Budget office adjusted to take account of our wage rate assumptions.

Debt service requirements were obtained directly from the schedule presented in the city's annual reports. We assume that Syracuse maintains its current level of debt over the projection period.

The projections show aggregate expenditure, exclusive of any new capital spending, growing to nearly $127 million by 1982 under the baseline assumptions (see Table 3). The annual rate of increase will decline near the end of the decade, reflecting the scheduled reduction in debt service requirements and an assumed slower rate of inflation. When the less vigorous growth is assumed, expenditures grow to $125 million by 1982, exclusive of any new capital outlays (see Table 2).

Budgetary Position

A comparison of the revenue and expenditure projections in Tables 2 and 3 show a projected budgetary surplus for the city. It is clear that this optimistic result occurs for two important reasons. The first is that sales tax revenues grow substantially in response to *regional* income growth. The second is that the public employment policy of the city allows for no new hirings and for no wage increases beyond cost of living increments. As a result, a very favorable fiscal position for the city emerges.

We have attempted to construct a more pessimistic set of projections by altering the assumption that public employees do not receive wage increments beyond the inflation rates. In Table 4 we show the sensitivity of the projection results to an assumption that the wages of public employees rise in proportion to the increase in real personal income in the region. The projections under this more pessimistic scenario have expenditures increasing by $35 million over the period. The budgetary position, as a result, deteriorates to a substantial deficit by 1982 (see Table 4).

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V. Conclusion

The results of this very preliminary research indicate a need to consider several factors in future work on local government budget forecasting. First, there is need to better identify the range of feasible assumptions in the sensitivity analysis. The projections here vary too widely to be useful for policy planning purposes. Second, the income and price level growth at the regional, national and local levels needs to be differentiated in order to more correctly measure the pressures for public employment compensation increase. Third, the implications for varying rates of private sector economic growth for public sector expenditures growth should be explored more fully. Too little is known about the possible responses of a local government to economic decline. Fourth, the implications of varying state government actions should be more explicitly taken into account in the forecasting model. The fiscal position of the state and city governments cannot be separated, and an appropriate model would forecast them simultaneously.

Footnotes

[1]The enthusiasm has even reached the universities, where coursework in public financial management is once again in vogue, and the research funding agencies where research on financial management and planning is apparently in favor.

[2]"Revenue and Expenditure Forecasting," The Urban Consortium, 1976.

[3]Robert H. Milbourne, "Econometric Forecasting in Wisconsin: Personal Income Tax Collections," *Presentations on Revenue Estimating Procedures*, Federation of Tax Administrators, Chicago, Illinois, 1976.

[4]L. E. Madere, *Municipal Budget Projections: Econometric Revenue Forecasting, New Orleans, Louisiana*, (unpublished manuscript), Department of Housing and Urban Development, July, 1977.

[5]"Revenue and Expenditure Forecasting," The Urban Consortium, 1976.

[6]Roy W. Bahl, Alan Campbell, and David Greytak, *Taxes, Expenditures and the Economic Base: Case Study of New York City*, (New York: Praeger, 1974), and Roy Bahl, Virginia Gerhardt, Sheldon Mann, and Walter Vogt, "A Framework for Fiscal Planning: Binghamton, New York," The Metropolitan and Regional Research Center, Maxwell School of Syracuse University (Syracuse 1972).

[7]Claudia Devita Scott, *Forecasting Local Government Spending*, The Urban Institute (Washington, D.C., 1972).

[8]The method is outlined in some detail for direct labor and nonlabor costs in Roy W. Bahl and Richard Gustely, *Forecasting Urban Government Expenditures*, Occasional Paper No. 14, The Metropolitan Studies Program, The Maxwell School, Syracuse University (Syracuse, New York: 1974); and for retirement cost expenditures see Bernard Jump, Jr., *Financing Public Employee Retirement Programs in New York City: Trends Since 1965 and Projections to 1980*, Occasional Paper No. 16, Metropolitan Studies Program, The Maxwell School, Syracuse University (Syracuse, New York: 1975).

[9]This model is spelled out in more detail in Roy Bahl, and Bernard Jump, "Projecting the Fiscal Viability of Cities," report submitted to the Municipal Finance Officers Association, 1977.

[10]David Greytak and Bernard Jump, *The Impact of Inflation on the Expenditures and Revenues of Six Local Governments, 1971–1979*, (Syracuse, New York: The Metropolitan Studies Program, Syracuse University, 1975).

[11]Some of the questions that ought to be considered by the analyst are discussed in Bernard Jump, Jr., *State and Local Employee Pension Plans: Watching for Problems.*

[12]U.S. Congress, Congressional Budget Office, *Five-Year Budget Projections: Fiscal Years 1978–1982.*

[13]Ibid.

[14]In forecasts of expenditures made by Syracuse's budget office, expenditure projections are based on a range of wage increases, the highest of which is a five percent growth in nominal wages.

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