1984

The Role of Multi-Year Forecasting in the Annual Budgeting Process for Local Governments

Roy W. Bahl
Georgia State University, rbahl@gsu.edu

Larry Schroeder
Syracuse University, ldschroe@syr.edu

Recommended Citation

Bahl, Roy, and Larry Schroeder. 1984. "The Role of Multi-Year Forecasting in the Annual Budgeting Process for Local Governments." Public Budgeting and Finance 4 (1): 3–13. https://doi.org/10.1111/1540-5850.00627.

ROY BAHL and LARRY SCHROEDER

The Role of Multi-Year Forecasting in the Annual Budgeting Process for Local Governments

The annual budget focuses on a single twelve-month period, yet spending and revenue decisions made today can have long-lasting fiscal effects. New capital projects require future spending on operations, maintenance, and debt-carrying charges; altered pension benefits carry long-term commitments; new fee structures will influence later years' revenues; and hiring, layoff, and salary schedule decisions have fiscal impacts well beyond the year in which they are made. Despite these very obvious long-term implications, surprisingly few local governments have attempted systematically to link the annual budget to a multi-year fiscal plan.

Multi-year projections of revenues and expenditures are a necessary step in overcoming the myopic attitudes often exhibited in the annual budget process. Projections do not, by themselves, constitute a multi-year fiscal plan, but they are both the first step and the major building block in preparing long-term budget plans. The aim of this paper is to argue that local governments can prepare and effectively use revenue and expenditure forecasts in the annual budget process, and to report the successful experience in a group of large cities. We begin by briefly describing the techniques which can be used to derive three-to-five-year forecasts of spending and revenues. The experiences of several large cities which use such projection efforts are then reviewed to show how the results have been directly applied in preparation of the annual budget. Finally, the role of forecasts in budgetary policy making is summarized.

MULTI-YEAR FORECASTING TECHNIQUES[1]

The most common approach to budgetary forecasting involves assuming a "business as usual" scenario. That is, one attempts to project the growth in revenues and expenditures over the next three to five years if no new policy initiatives are undertaken; i.e.,

This paper is an outgrowth of work on revenue and expenditure forecasting under a grant from the National Science Foundation (DAR78-20256). Roy Bahl is professor of economics and public administration and director, Metropolitan Studies Program, the Maxwell School, Syracuse University. Larry Schroeder is professor of public administration and economics and senior research associate, Metropolitan Studies Program, the Maxwell School, Syracuse University.

no tax rate changes, no service level alterations, no real compensation increases. This approach provides an estimate of how the future budgetary position of the jurisdiction will be affected by external factors which are beyond the control of the local government (inflation, federal aid, etc.). The exercise produces less a forecast of what actually will occur than a set of baseline projections which can be used to simulate the effects of policy changes.

Several different techniques have been used to generate such projections. These might be classified as judgmental, trend, deterministic, and econometric. Cities which have implemented multi-year forecasting programs use some combination of these four approaches.

The two most straightforward approaches rely on observations of past performance. Under the judgmental approach to forecasting, an individual or several individuals (often the budget officer and staff) are consulted as to their "best guess" concerning the probable level of a particular revenue or expenditure category. That best guess becomes the forecast. For example, intergovernmental grants are often forecast using a judgmental approach. Expert judgments are sometimes the best approach to forecasting, but of course the results are only as good as the expert. In any case, this approach is much less useful for a multi-year forecast than for making revenue projections for the annual budget. Trend techniques are a bit more systematic in that they project the future from the historical movement in a revenue or expenditure series. The technique is simple and can be accurate, especially when the series that is forecast does not fluctuate with the changing economic and demographic fortunes of the community.

"Expert judgments are sometimes the best approach to forecasting, but of course the results are only as good as the expert."

Deterministic approaches allow the analyst more opportunity to build policy assumptions directly into the forecast. For example, an automobile registration revenue is equivalent to an automobile registration fee times the number of autos registered; hence, a deterministic technique requires only that future values of the multiplicands be forecast. Labor expenditures in a department require that one project, separately, the amount of employment and the average compensation level. The advantage of simplicity argues for such an approach.

At the other end of the spectrum are the econometric techniques which rely upon relationships between revenues/expenditures and a set of "independent" socioeconomic variables. By assuming future values of these socioeconomic variables, the econometric technique yields a projection of the fiscal series under the assumption that the same functional relationship will hold in the future. The econometric approach is more costly in terms of data and computational and statistical expertise requirements, more difficult

to explain to laymen and the city council, and probably useful only for the revenue side of the budget. On the other hand, it has many advantages. It permits an estimate of the impact of economic fluctuations on economically sensitive revenues, it enables one to simulate the fiscal impact of varying degrees of recession and inflation, and it leads to a better understanding of the underlying relationship between the local economic base and the local fiscal structure.

EXPENDITURE FORECASTING AND BUDGETING

Most local government fiscal planning systems attempt to forecast a "constant services" level of expenditures. Even though few can say what this really means, the forecasts project what it would cost to deliver a package of services comparable to that provided in a base year. The question, in other words, is "how much will it cost us to continue doing what we are doing now?" In practice, this approach involves projecting the effects of price increases, population shifts, and any planned service changes. The projection method is detailed but not particularly complicated. It amounts to little more than multiplication and addition—summing across all spending categories the product of prices of inputs times the quantities likely to be purchased in the future. Even though most cities that project expenditures use this deterministic, accounting-identity approach, there are important differences in the specific techniques employed. The simplest approach relies almost entirely on inflation to drive the forecasts, while more sophisticated models take both real inputs and price levels into account.

Expenditure forecasts are linked to the anticipated inflation in New Orleans[2] and, to a lesser extent, in the District of Columbia[3] and New York City.[4] In these cities there is a recognition that real inputs are unlikely to be permitted to expand much in the near term and that the driving force behind spending increases will be price level rises.[5]

This inflation-driven approach to expenditure forecasting has proved useful in the annual budget process. In each of the three cities mentioned, the expenditure forecasts have been computerized so that alternative inflation rates can be applied to labor and various categories of nonpersonal spending. Furthermore, each city produces an initial run-through of the expenditure forecast—including a one-year forecast—even before the formal budget process begins. In New York City this is a part of its mandated multi-year forecasting procedure, while in New Orleans and the District of Columbia the exercise is for internal policy-making use. It is on the basis of these initial projections that budgetary instructions are given, such as estimates of the total amount available to an agency in the following fiscal year. Moreover, since the process is computerized, policy makers can easily make additional simulations to evaluate the multi-year implications of new policy initiatives.

Some cities have found that a constant services budget requires an increase in the quantity of inputs employed. For example, "constant" police services may be taken to mean a constant number of policemen per 1000 population, hence, an increase in police employment if population is growing. Cities annexing land area face an analogous problem as regards the need to increase the number of inputs employed to keep service levels constant. This raises the need for a more sophisticated projection model, but it

also presents the opportunity for more effective linkage between the multi-year projections and the annual budget process.

Under this system the agency-level units responsible for preparing the annual budget are requested to consider the future budgetary impacts of changes such as: (a) planned new capital projects that will affect operating and maintenance costs of the department; (b) higher level government mandates that are scheduled to come into effect during the forecast period; (c) demographic or economic changes that will affect departmental spending; and (d) policy changes scheduled to be implemented during the forecast period. In other words, the cost implications of departures from a constant services budget are estimated.

The cities of Dallas and San Antonio have developed a systematic approach to gathering such information.[6] The success in these cities is due to their recognition that the estimation of such impacts can be accomplished most effectively at the agency level. For example, in the case of new capital projects, the operating department is in the best position to estimate the completion date of the project as well as to cost out the amount of new manpower and non-labor costs needed to operate and maintain the facility. Operating agencies are also most likely to be aware of new, mandated services and can provide the best information on the incremental costs of these policies. Agency personnel are also in the best position to estimate effects of assumed changes in population size and composition on necessary spending levels.

"When policy makers can be shown the extent of the potential problems the jurisdiction will face within the next few years, they may be less willing to undertake expansionary policies that may come back to haunt them later."

Such procedures have obvious implications for the annual budgetary process. Most importantly, they allow the system to anticipate a new environment in which the budget will operate. While one would hope that a budget division would collect information on such future events as scheduled mandates and new needs, the existence of a formalized process that requires budgetary submissions to include these factors means the persons responsible for budget preparation are less likely to be surprised. Furthermore, costing out the fiscal effects of these future resource needs makes the process more effective than a simple statement such as "the new park will mean that additional maintenance personnel will have to be hired by the Parks Department."

In order to insure that the long-term forecasts of needs are realistically submitted and are not, for example, simply indicators that whatever the agency is spending today will be spent in subsequent years, a more formal linking of the annual budgetary process and multi-year forecasting techniques is necessary. That is, if a department knows in 1983 that its 1985 forecast entries will be used as its initial budgetary allocation when

preparing the 1985 budget, a more serious approach to the long-term forecast is likely. This is the technique used in Dallas and San Antonio, where any annual budget request not included in the previous year's long-term forecast is scrutinized closely before being approved.[7] On the other hand, if the long-term forecast is to be useful, it must be more than a wish list. To guard against this, both of the Texas cities, New York City, and the District of Columbia use central review of the long-term forecast submissions. This review, carried out by the same budget analysts who review annual submissions, not only imposes additional "honesty" on the agencies, but can inform the budget analysts of likely upcoming events.

In sum, long-term forecasting can markedly improve the annual budgeting process. By requiring agency heads to think of the longer term implications of today's decisions, they can be made to consider more carefully the true cost of each expenditure decision. This may be especially true when they can see in detail that a submission on today's budget request may decrease their flexibility in subsequent years.

REVENUE FORECASTING AND BUDGET PREPARATION

There are several ways in which jurisdictions might forecast revenues three to five years into the future. Some of these are not greatly different from what is currently used in many jurisdictions to produce revenue estimates for the annual budget, hence there is the possibility that the annual budget revenue estimates and the multi-year projections can be meshed. This coordination may take the form of simply using the multi-year forecast as one piece of information in determining the annual budget estimate, or by using the first year of the multi-year forecast directly.

In some cities, e.g., Kansas City, Missouri, the multi-year forecast is produced several months prior to the beginning of the fiscal year and cannot be used directly in the budget document.[8] There are also cities, e.g., Dallas, where the responsibility for producing the multi-year forecast has been placed in a unit other than that responsible for the budget document itself. Nevertheless, even in these cases the output of the multi-year forecast may be used as one piece of information to aid in deciding upon the specific estimated revenue to insert in the annual budget document.

In cases where econometric techniques are used to forecast revenues, the model may be useful to the budget preparer. For example, while it may be anticipated that a recession will adversely affect sales tax revenues, an econometrically estimated function can give a quantitative estimate of the magnitude of this effect. Otherwise it would be necessary to guess. Although the econometric estimate may be altered, the results from the statistical equation provide a good starting point. Such an approach has been taken in Dallas.

Where there is sufficient confidence in the multi-year forecasting model, its output may be used directly to derive the budget estimate. In both New Orleans and New York City the same forecasting equations for the economically sensitive revenues are used for the annual budget and the multi-year projections. Few jurisdictions would be willing to take a similar step in the absence of any history of accuracy, but several years of good experience with a model can be convincing to policy makers. Tables 1–3 provide

TABLE 1
Forecasting Accuracy for Selected Tax Revenues in New York City, 1977, 1978, and 1982 ($ millions)

Revenue Source	Forecast	Actual	Percentage Error*
		FISCAL YEAR 1977	
General corporation tax	$ 480.1	$ 518.5	- 7.41
Financial tax	173.6	148.5	16.90
Unincorporated business tax	72.2	77.7	- 7.08
Utility tax	105.4	99.8	5.61
Sales tax	850.7	867.4	- 1.93
Personal income tax	674.3	722.9	- 6.72
Stock transfer tax	275.1	279.7	- 1.65
Total	2,631.4	2,714.5	- 3.06
		FISCAL YEAR 1978	
General corporation tax	$ 519.2	$ 491.9	5.55
Financial tax	165.0	147.9	11.56
Unincorporated business tax	79.6	85.5	- 6.90
Utility tax	113.0	108.7	3.96
Sales tax	901.3	931.2	- 3.21
Personal income tax	741.9	802.0	- 7.49
Stock transfer tax	228.0	290.2	-21.43
Total	2,748.0	2,857.4	- 3.83
		FISCAL YEAR 1982	
General corporation tax	$ 609.7	$ 698.4	-12.70
Financial tax	218.9	204.9	6.83
Unincorporated business tax	132.3	123.3	7.30
Utility tax	164.3	173.8	- 5.47
Sales tax	1,432.8	1,414.8	1.27
Personal income tax	1,109.3	1,159.4	- 4.32
Stock transfer tax	183.0	202.6	- 9.67
Total	3,850.3	3,977.2	- 3.19

$$*\text{Percentage Error} = \frac{\text{Forecast–Actual}}{\text{Actual}} \times 100$$

some perspective on the forecasting accuracy obtained in three different cities during the late 1970s and early 1980s.[9] Table 1 documents the one-year forecast errors found for the major economically sensitive tax revenue sources in New York City.[10] A forecasting model is put to a serious test in New York City, where the revenue sources include corporate and unincorporated business taxes and levies on financial institutions. Because of their cyclical sensitivity, these revenue sources are quite difficult to predict accurately. Five to ten percent error rates seem the rule in these three years, in part because the unanticipated inflation of the late 1970s played a major role in the underestimation of sales and income taxes. The recent prolonged recession, while it has not struck New York City as severely as many other cities, still resulted in an overly optimistic projection of sales taxes. Overall, the New York City model has projected annual revenues with a very low 3 to 4 percent error rate.

TABLE 2
Forecasting Accuracy for Selected Tax Revenues in New Orleans, 1979
($ thousands)

Revenue Source	1977 Forecast	1978 Forecast	1979 Actual	*Percentage Error** 1977 Forecast	1978 Forecast
Real and personal property tax	$ 8,767	$10,150	$10,288	-14.78	-1.34
Sales tax	52,412	58,044	57,250	- 8.45	1.39
Utility tax	5,201	6,039	5,626	- 7.55	7.34
Licenses and permits	16,699	18,427	19,001	-12.12	-3.02
Total	83,079	92,660	92,181	- 9.87	0.52

$$*\text{Percentage Error} = \frac{\text{Forecast}-\text{Actual}}{\text{Actual}} \times 100$$

For New Orleans the forecast errors for 1979 are from two different forecasts: The first is based upon the multi-year forecast published in 1977 and the second upon that published in 1978 (Table 2). The 1977 forecast of 1979 revenues was considerably lower than the 1978 forecast, a result that can be attributed to unanticipated price rises. The downside error in the property tax was due primarily to new assessment procedures implemented prior to 1979. The overall error in the 1978 forecast was smaller because of the shorter time horizon. This pattern is likely to hold in any multi-year forecast, because additional information allows for more accurate projections of the exogenous variables to be used in the econometric equations. The New Orleans results make a strong case for using a multi-year forecasting model directly in revenue estimation for the annual budget. In 1979 the overall error rate for all revenues was only 0.11, and it increased to only 0.22 percent in 1980. Such levels of accuracy would be difficult to equal, even through the more commonly used judgmental techniques. This would seem to be a strong endorsement of the econometric approach.

Forecast errors from the City of San Antonio are shown in Table 3. San Antonio uses a combination of econometric and trend analysis techniques to derive its long-term forecasts but does not use the model directly in projecting annual budgetary income. The three sources shown make up the bulk of San Antonio's general fund revenues. Two different forecasts are examined in the table—one made about halfway through the 1978 fiscal year and the other midway through the 1979 fiscal year. Projections for both FY 1979 and FY 1980 are shown. As one would anticipate, "forecasts" only six months into the future (the 1979 forecast made during the 1979 fiscal year) are extremely accurate. But the methods employed also show reasonably accurate projections 18 and 30 months into the future. Projections of San Antonio's general fund property tax revenues (shown in Table 3) are complicated by the fact that this tax must first be dedicated to provide coverage of any general obligation debt with the remainder flowing to the general fund. The 1980 forecast errors shown in Table 3 primarily reflect er-

TABLE 3
Accuracy of 1978 and 1979 Forecasts of Major Tax Revenues in San Antonio for 1979 and 1978 ($ thousands)

				*Percentage Error**	
	1978	1979		1978	1979
1979 Revenue Sources	**Forecast**	**Forecast**	**Actual**	**Forecast**	**Forecast**
Property tax	$31,681	$32,737	$32,905	- 3.72	- 0.51
Sales tax	27,217	26,269	26,244	3.71	0.10
Public service tax	37,898	39,390	38,881	- 2.53	1.31
1980 Revenue Sources					
Property tax	$32,094	$32,689	$39,964	-19.69	-18.20
Sales tax	31,027	29,762	29,987	3.47	- 0.75
Public service tax	39,827	41,971	48,700	-18.22	-13.82

$$*\text{Percentage Error} = \frac{\text{Forecast}-\text{Actual}}{\text{Actual}} \times 100$$

rors in overestimating the amount of general obligation debt service rather than structural errors in forecasting the property tax. Underestimation of public service revenues stems from the rapid increase in utility prices while the tax is tied to gross revenues. Again, however, more current forecasts were found to be more accurate than longer range projections.

USE OF A MULTI-YEAR FORECAST IN THE ANNUAL BUDGETARY DECISION

The most obvious policy use of a multi-year forecast arises when a revenue gap is projected. Even if the projected gap is several years into the future, the forecast has produced an "early-warning signal" that steps may have to be taken immediately to avoid the gap. Indeed, in this sense the forecast will never be accurate; i.e., it will lead to steps to erase the projected unfavorable outcome. It would not be uncommon for the multi-year projection results to lead to the following outcomes:

- A capital project might be delayed or reduced in size because of the operation and maintenance expenditures implied for the current budget.
- New programs might be denied to help accumulate a current surplus for use in future years where a more bleak fiscal position has been projected. For example, this might be an action taken as regards the phasing down of certain federal aid programs.
- Pension, fringe benefit, and wage rate negotiations may be markedly influenced by demonstrations of long-run affordability.

In general, the advantage offered the annual budget process is more information about the prospects for the local fiscal environment. An especially important contribution from a systematic multi-year forecasting system, especially if it is computerized so

that different scenarios may easily be tried, is that the longer range implications of alternative budget initiatives can be estimated before the budget is put into final form.[11]

A very good example of the use of multi-year forecasting to deal with the annual budget gap is in the procedures followed in New York City. As a part of their multi-year forecast, the kinds of alternative policies necessary to close the projected budget gap are shown explicitly. While the output from that forecast may not be identical to the ultimate cutback decisions made, it does show policy makers and the public the extent of the problem and gives an indication of the kinds of policy responses that will be necessary to insure that future deficits will not occur.[12]

The approach taken in New York has been replicated, and even expanded, in several cities which have developed multi-year forecasting models during the past few years. In its first multi-year forecast, Shreveport not only identified 31 specific measures necessary to close the projected 1982 budget gap, but also showed the net fiscal effect of these actions during the subsequent three years and identified and estimated the cost savings of 12 additional measures to be undertaken during 1983–1985.[13]

Two Texas jurisdictions, Dallas County and the City of Fort Worth, are also using their forecasts as a long-term strategy formulation device. In its 1982–1986 forecast, Fort Worth included several revenue and expenditure strategies designed to preclude a projected budget gap.[14] Similarly, Dallas County includes a lengthy discussion of specific strategies that could be undertaken either to yield cost savings or to generate additional revenues.[15]

On the revenue side of the budget there are specific policy decisions that can result directly from the multi-year forecast. Again, in the face of future revenue shortfalls, policy makers may decide that increases in tax rates or user fees and charges are justified. Not only will the models suggest the extent of the shortfall, but the more sophisticated models can be specified in a manner so that the revenue impacts of alternative rate adjustments can be estimated.

Finally, the multi-year forecast can provide an atmosphere for more rational budgeting. When policy makers can be shown the extent of the potential problems the jurisdiction will face within the next few years, they may be less willing to undertake expansionary policies that may come back to haunt them later. Furthermore, most models currently being used can be employed to show the extent to which the locality is at risk with respect to possible downturns in the national economy, increases in inflation, or political decisions that could be made at higher levels of government.[16] Recent concern about the fiscal implications of rampant inflation is obvious from a review of several forecasts produced within the past two years which show, as well, the sensitivity estimation potential of the multi-year models. For example, the cities of Dallas, San Antonio, and Vancouver each produced estimates of revenues and expenditures under alternative assumptions about price changes.[17] In a similar vein, Phoenix used a multi-year model in studying the impact of a state expenditure limitation law.[18] In this way budget makers could see the extent of the difference between what would likely have been spent and the upper limit of what the state of Arizona was mandating could be spent, thus providing them some perspective regarding the degree to which they would

have to cut back in upcoming budgets. While sobering, when hard dollar estimates of the fiscal implications of locally uncontrollable events are put before policy makers, it provides a more realistic setting for budgetary decisions.

SUMMARY

The thesis of this paper is that multi-year forecasting can be made an integral part of the overall financial management process of a jurisdiction and can be linked directly to the annual budgetary process. While the techniques are not complicated, forecasts of spending over the longer term can be used to prevent major budgetary surprises and, as well, can give department heads a longer time perspective on the requests made in preparation of the annual budget. Likewise, the forecasts from multi-year revenue models can be used directly in formulating annual budget estimates or, at the very least, can be used as additional information in finalizing these estimates. All of these uses can then feed into the final budget approval process. While the forecast is not a sufficient condition to avoid all future budgetary problems, it does aid in avoiding the common budget-making trap of being overly myopic on the consequences of current decisions.

NOTES

1. These techniques are described in more detail in Roy Bahl and Larry Schroeder, "Forecasting Local Government Budgets," Occasional Paper No. 38, Metropolitan Studies Program, the Maxwell School (Syracuse, N.Y.: Syracuse University, 1979).
2. Larry Schroeder, Lee Madere, and Jerome Lomba, "Local Government Revenue and Expenditure Forecasting: New Orleans," Occasional Paper No. 52, Metropolitan Studies Program, the Maxwell School (Syracuse, N.Y.: Syracuse University, September 1981).
3. Roy Bahl, Larry Schroeder, Marla Share, and Anne Hoffman, "Local Government Revenue and Expenditure Forecasting: Washington, D.C.," Occasional Paper No. 51, Metropolitan Studies Program, the Maxwell School (Syracuse, N.Y.: Syracuse University, September 1981).
4. Roy Bahl, Larry Schroeder, and Kurt Zorn, "Local Government Revenue and Expenditure Forecasting: New York City," Occasional Paper No. 50, Metropolitan Studies Program, the Maxwell School (Syracuse, N.Y.: Syracuse University, September 1981).
5. Give their uncontrollable nature, transfer programs in both the District of Columbia and New York City are projected using a different technique. Case loads as well as unit costs are forecast, with the former usually linked to the economic assumptions that underlie the forecast.
6. See Roy Bahl, Larry Schroeder, and Kurt Zorn, "Local Government Revenue and Expenditure Forecasting: Dallas, Texas," Occasional Paper No. 49, Metropolitan Studies Program, the Maxwell School (Syracuse, N.Y.: Syracuse University, September 1981); and Roy Bahl, Larry Schroeder, and Marla Share, "Local Government Revenue and Expenditure Forecasting: San Antonio," Occasional Paper No. 48, Metropolitan Studies Program, the Maxwell School (Syracuse, N.Y.: Syracuse University, September 1981).
7. Ibid.
8. Office of Budget and Systems, *Five-Year Financial Forecast, 1983–84 to 1987–88* (Kansas City, 1982).
9. Because of its special nature, the real property tax in New York City is not classified as an economically sensitive revenue source and is forecast using judgmental rather than econometric techniques.
10. A detailed examination of the accuracy of forecasting a single revenue source and how that accuracy

has improved over time is contained in City of San Diego, Financial Management Department, "A Retrospective Look at the Success of Long-Range Revenue Forecasting" (San Diego, 1982).

11. This is one use that has been made of the multi-year model implemented in the District of Columbia. See Bahl, Schroeder, Share, and Hoffman, "Local Government Revenue and Expenditure Forecasting: Washington, D.C."
12. See Bahl, Schroeder, and Zorn, "Local Government Revenue and Expenditure Forecasting: New York City."
13. City of Shreveport, *Multi-Year Forecast, 1981–1985* (Shreveport, 1981).
14. Office of Management Services, Fort Worth, Texas, *Long Range Financial Forecast, 1982 to 1986* (Fort Worth, 1981).
15. Dallas County, Texas, Office of Commissioners Court, *FY-82 Long Range Plan for Dallas County* (Dallas, 1982).
16. For an example of an analysis of this degree of risk within an intergovernmental setting, see Roy Bahl and Larry Schroeder, *Projecting and Planning State and Local Government Fiscal Activity in a Declining Region: The New York Case*, Monograph No. 5, Metropolitan Studies Program, the Maxwell School (Syracuse, N.Y.: Syracuse University, 1980).
17. Office of Management Services, Dallas, Texas, *Summary Long-Range Financial Projections: 1980–81 to 1984–85* (Dallas, 1981); Department of Budget and Research, San Antonio, Texas, *Long-Range Financial Forecast: Fiscal Years 1982–1987* (San Antonio, 1982); and City of Vancouver, Washington, *Five-Year Financial Forecast: 1983–1987* (Vancouver, 1982).
18. Management and Budget Department, Phoenix, Arizona, *Five-Year Forecast and City Options* (Phoenix, 1981).