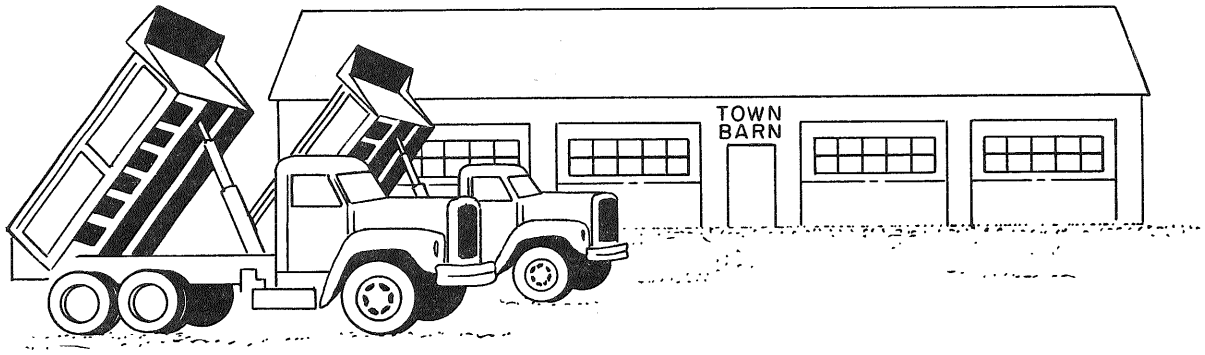
October 1985

A.E. Ext. 85-24

HELPING SMALL LOCAL GOVERNMENTS DEVELOP CAPITAL IMPROVEMENT PROGRAMS:

Development and Initial Testing of a Microcomputer-Assisted Approach



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This paper reports on one component of a multi-part research project on selected social and economic characteristics of the Adirondack Park region conducted by the New York State College of Agriculture and Life Sciences at Cornell University. An executive summary of this report and a set of teaching materials for training local government officials in the use of the approach described here are also available.

Other reports resulting from this project deal with the following topics:

- Tourism in the Adirondacks;
- Community water services in the Adirondacks;
- Computer methodology for estimating the effects of changes in the real property tax base on classes of taxpayers;
- The Adirondack land market;
- Public attitudes toward land use in the Adirondacks;
- The role of agriculture in the Adirondack economy; and
- A typology of Adirondack towns and villages based on social and economic characteristics.

A related Cornell study classifies hamlets in the Adirondacks as a basis for developing packages of recommendations for community enhancements.

To obtain executive summaries and complete copies of these products, contact:

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ACKNOWLEDGMENTS

The work reported on in this paper was undertaken as one component of a research project on selected social and economic characteristics of the Adirondack Park region of New York. The project was made possible by funds provided by New York State to the New York State College of Agriculture and Life Sciences at Cornell University. The coordinator for the overall project was David J. Allee, Professor of Resource Economics in the Department of Agricultural Economics at Cornell.

The cooperation of the New York State Department of Audit and Control was essential to the completion of this subproject. Particularly helpful were Joseph Hilton, Director of the Bureau of Municipal Research and Statistics, and Frank McColl, Senior Municipal Research Analyst for the bureau.

Equally essential were the cooperation of town officials in the testing of the Capital Improvement Programming Model and their reactions to this process. These officials included Edwin Baker, Supervisor, and Hermina Baker, Supervisor's Bookkeeper, Town of Thurman; John Kelly, Supervisor, and Carol Roth, Supervisor's Bookkeeper, Town of Schroon; Donal DeMacy, Supervisor, and Shirley Lawrence, Supervisor's Bookkeeper, Town of Wilmington; John Hosley, Jr., Supervisor, and Dot Malone, Supervisor's Bookkeeper, Town of Long Lake; and Pat Quinn, Supervisor, Mike Hanson, Auditor, and Aluva Marconi, Town Clerk, Town of Altamont.

An overlapping group of local officials helped us by reacting to our initial proposal. This group also included John Kelly, Donal DeMacy, and Edwin Baker. In addition, it included Richard Bolton, Hague Town Supervisor; Frank Leonbruno, Bolton Town Supervisor; and Donald Smith, Lake George Town Administrator.

Clerical assistance at Cornell was ably provided by Carolyn Albro, Florence Blodgett, Nancy Brinkhaupt, and Linda Schempp.

Numerous other parties -- from Cornell, county and regional Cooperative Extension offices, county, town, and village governments, the Adirondack Park Agency, the Adirondack Park Local Government Review Board, and other state agencies -- also provided assistance, reaction, and encouragement at various times during our work.

We extend our sincere thanks to all who assisted us for their inputs, their time, and their patience. Of course, any errors or shortcomings in the efforts reported on here are solely the responsibility of the authors.

I. BACKGROUND: OPPORTUNITIES TO STIMULATE CAPITAL IMPROVEMENT PROGRAMMING BY SMALL LOCAL GOVERNMENTS

Although the advantages of capital improvement programming by local governments have been convincingly argued for many years by those interested in improving local government financial decision-making, few small local governments have institutionalized this practice.[1] Among the probable reasons would seem to be the limited time that most part-time elected officials can devote to their public duties and their need to spend that limited time on required routine tasks, everyday decision-making, and emergencies; the limited quantity of full-time staff resources available for general planning and management tasks; financial recordkeeping systems that cannot be easily manipulated to generate the information on past and current operations necessary for long-range financial planning; and the lack of formats and calculation techniques that would make development of a capital improvement program an easily manageable task rather than a formidable one.

The current era of "hard times" in the public sector should provide an opportunity for developers of new governmental financial practices and providers of technical assistance to stimulate adoption of capital improvement programming practices by small local governments. Budget pressures have intensified greatly for many of these governments in recent years, and it appears quite likely that this trend will continue for the foreseeable future. The reasons are diverse, but include such factors as reduced federal and state aid; the need to make major capital expenditures on neglected infrastructure, polluting landfills, alternative waste disposal facilities, etc.; faltering local and regional economies and eroding tax bases and a consequent need to

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[1] Theodore R. Alter and Nancy E. Melniker (Analyzing Local Government Fiscal Capacity [University Park, Pa.: The Pennsylvania State University, Cooperative Extension Service, 1981], p.13) provide these helpful definitions:

> Capital improvement program: A plan for regular capital expenditures, typically developed for six years into the future. The plan sets forth each capital project or improvement, its beginning and ending dates, expected annual expenditures, and the means of financing these expenditures.
>
> Capital budget: A plan of proposed capital expenditures and the means of financing them. The capital budget is usually enacted as part of the complete annual budget which includes both operating and capital outlays. The capital budget should be based on a capital improvement program.

Regular capital expenditures are defined later in this report.

"invest" in economic development activities and projects; and, as often happens, demands from constituents for improved services and, at the same time, lower taxes. In this climate of fiscal adversity, many officials of small local governments should welcome helpful new practices that enable them to maximize the use of their scarce resources. As Beth Walter Honadle notes:

> Capacity-building requires the commitment of top-level management to improving administration. . . . Financial pressures can spark the necessary commitment by making officials more aware of the need for better administration.[2]

Another factor that should facilitate both the development and adoption of such approaches is the availability of inexpensive microcomputers and generic software packages. In combination, these two technologies provide a means by which the numerous calculations and recalculations necessary for developing a capital improvement program can be done almost effortlessly. The declining prices of these machines and software have put this technology within the grasp of many providers of technical assistance to small local governments and of many of these governments as well.

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[2]Beth Walter Honadle, "Managing Capacity-Building: Problems and Approaches," Journal of the Community Development Society 13 (Fall 1982): 65.

II. OVERVIEW: DEVELOPMENT OF A CAPITAL IMPROVEMENT PROGRAMMING MODEL FOR SMALL NEW YORK LOCAL GOVERNMENTS

This report describes a Capital Improvement Programming Model developed for use with small towns in New York and sets forth conclusions from its initial testing with five towns in the Adirondack Park region. For the purposes of this report, a small town is one with less than 10,000 population. The model builds upon and adapts to the New York situation work led by Theodore R. Alter at The Pennsylvania State University.[3] The model was tested in the Adirondack Park region because, as noted before, it was developed as a subproject of a broader research project on this area.[4] However, with appropriate modifications, it could be used with small towns, villages, and cities throughout the state.

The subproject had two principal objectives. The first was to develop a multi-year financial planning framework which would enable officials of small local governments to better evaluate, in general, many of the revenue and expenditure choices that they must make. A particular emphasis within this broader objective was to develop methods that would facilitate capital improvement planning.[5] The second objective was to develop and test microcomputer software that would quickly handle the calculations necessary for using these methods and thereby greatly shorten the time necessary for their use with or by local officials. The conceptual basis of this software also had to be understandable by local officials, since it was assumed that they would not use the results of even a partially "black box" process.

The model will be described in detail in the following section, but an overview at this point should facilitate understanding of the detailed explanation by the reader. In a typical interaction with officials of a particular local government, the technical assistance providers gain their agreement to participate in an application of the model. The technical assistance providers then gather relevant social and economic data on the jurisdiction and organize them into tables. They also develop historical revenue, expenditure, and debt data on the jurisdiction and organize these data into tables. These two types of data are then reviewed with local officials as two bases for improving their understanding of their jurisdiction and for making operating revenue and

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[3]See Alter and Melniker, Analyzing Local Government Fiscal Capacity.

[4]For a list of the topics of the other subprojects, see the reverse of this report's cover page.

[5]Although the model is intended primarily to facilitate capital improvement programming, as implied here, it also has other applications. These will be discussed later in this report.

operating expenditure projections. Using these data and also their own knowledge of local conditions, needs, and objectives, the local officials choose a projection assumption for each of a number of categories of operating revenues and operating expenditures. These assumptions are chosen from a menu of simple options, such as a constant dollar increase each year or a constant annual percentage increase. These choices are used with the microcomputer spreadsheet software to generate projections for six years into the future for each projection category as well as annual totals for operating revenues and operating expenditures. The software also subtracts the sum of each year's total operating expenditures and known debt service commitments, as ascertained from local records, from each year's total operating revenues. The remaining amounts of operating revenues--if any--are considered available for financing future capital expenditures. These annual projections of available funds are then integrated, again through use of the spreadsheet software, with the local officials' proposed capital expenditures for the six-year period and their proposed means of financing them. If the local officials are not satisfied with the initial outcomes of this process, the microcomputer program enables the technical assistance providers to help them easily and quickly make changes in their operating revenue and operating expenditure projections and capital expenditure plans. This interaction with local officials can be completed in three to seven hours.

The remainder of this report is divided into three sections. The first of these sections describes in detail the Capital Improvement Programming Model, including the sources of its data and the process for using it with local officials. The second section provides descriptive information on the towns with which the model was tested and an evaluation of those tests. The third section outlines avenues for further development and additional applications of the model.

III. A DETAILED DESCRIPTION OF THE CAPITAL IMPROVEMENT PROGRAMMING MODEL

Projection Bases: Socio-Economic And Historical Financial Data

As noted above, one of the tasks that the project personnel undertook before using the model with a particular jurisdiction was to gather relevant social and economic data on the jurisdiction and organize them into tables. This activity had two purposes. One was to better familiarize the project personnel with the nature of the jurisdiction and its past development; it was hoped that this would enhance their capacity to be of assistance and to evaluate their interaction with local officials. Staff members found these data to be helpful for all five of the pilot tests. The second purpose was to provide social and economic data for review and analysis by local officials as one basis for their projections of operating revenues and operating expenditures. After giving a copy of the tables to the participating local officials, the project personnel discussed the data with them, emphasizing noteworthy points identified beforehand. Some local officials, particularly those who had been involved in grant activity, indicated that they were already familiar with some of the data. In their responses on the evaluation questionnaire, all of them stated that they found it useful to review these data.

Tables 1 through 6 provide an illustration of the manner in which the social and economic data were organized. The test jurisdiction in this case was the Town of Schroon, but data on Essex county, in which Schroon is located, and on other jurisdictions within the county were included in four of the tables to enable the project staff and Schroon officials to make local comparisons. Another noteworthy aspect is that despite having access to some special data sources, project staff were not able to find data for some variables for some years, as indicated by the blank spaces in the tables.

A second data-related task that project personnel undertook before working with a particular jurisdiction was to build a "picture" of its past and current revenue, expenditure, and debt activity. The word "picture" is used here to convey that the intention was to identify and organize this financial information in such a way that a clear summary of the jurisdiction's past and current financial position and commitments could be presented to the participating local officials as another basis for making operating revenue and operating expenditure projections.

The major source of these financial data was the computerized Local Government Data Base developed by the Bureau of Municipal Research in the Division of Municipal Affairs of the New York State Department of Audit and Control. Among many other responsibilities, this state agency prescribes a "Uniform System of Accounts" for bookkeeping purposes for each major type of general-purpose local government in New York State -- counties, cities, towns,

Table 1. ESSEX COUNTY AND SCHROON TOWN: TOTAL POPULATION, 1950-1980

Year	Essex County	Percent change	Schroon Town	Percent change
1950	35,086	2.7	1,176	------
1960	35,300	0.6	1,220	3.7
1970	34,631	-1.9	1,403	15.0
1980	36,176	4.5	1,606	14.5

SOURCES: Cornell University, Rural Sociology Department, The People of Essex County, New York, 1963; Cornell University, Rural Sociology Department, The People of New York State Counties: Essex, 1973; and Cornell University, Department of Rural Sociology, Population Information Program, The People of New York, Northern Notebook, 1982.

and villages. As directed by law, it also requires these governments to submit to it an annual financial report on standardized forms. After these reports are checked and corrected by agency personnel, consulting as necessary the local officials who file them, they are used to construct the data base referred to above, which contains ninety revenue, expenditure, and debt items. The initial year of the data base is 1975, and an additional year of data is added to the time series annually. Because of the time needed to review each jurisdiction's annual report and to automate the data, this annual increment is "lagged" by one year. For example, the data from town financial reports for 1981 (for January 1, 1981 through December 31, 1981) were added to the data base in the early part of 1983. The data base was made available to project staff in the form of computer tapes for use on a mainframe computer. Data for a particular jurisdiction were then "downloaded" to an IBM Personal Computer for manipulation and preparation for the interaction with local officials.

To bring the financial picture presented to local officials up-to-date, two additional years of data were drawn from local records to add to the data from the computerized data base. This update was accomplished by drawing data from a town's most recent annual financial report (1982) and from its budget for the current year (1983). To do this, data were used from the two most recent annual financial reports. The extra year of data (1981) provided one year of overlap with the computerized data base and thus provided the means to ensure that the method used to categorize and aggregate figures from the town records was consistent with the method used to construct the computerized data base. This updating required between two and five person-days of time for each town.

Two additional sources of data were consulted to provide the data on real property tax items needed to complete the picture of past and current financial activity. The Department of Audit and Control's annual publications on real

Table 2.

ESSEX COUNTY AND SCHROON TOWN: AGE STRUCTURE OF TOTAL POPULATION, 1970 AND 1980

Unit and year	Median age	Population Groups						Aged-to-child ratio
		Under 18	%	18 to 64	%	65+	%	
Essex County								
1970	----	12,531	36.2	17,839	51.5	4,261	12.3	34.0
1980	32.5	10,387	28.7	20,520	56.7	5,269	14.6	50.7
Schroon Town								
1970	----	510	36.3	718	51.2	175	12.5	34.3
1980	36.9	434	27.0	882	54.9	290	18.1	66.8
Essex County range, towns only								
1980	30.0 (Lewis)		23.2 (Elizabeth-town)		52.5 (Elizabeth-town)		8.5 (Lewis)	26.1 (Elizabeth-town)
	38.1 (Elizabeth-town and N. Hudson)		32.4 (Lewis)		61.6 (North Elba)		24.3 (Elizabeth-town)	104.8 (Elizabeth-town)

SOURCE: Cornell University, Rural Sociology Department, Population Information Program, The People of New York, Northern Notebook, 1982.

Table 3. ESSEX COUNTY AND SCHROON TOWN: HOUSEHOLDS AND PERSONS/HOUSEHOLD, 1950-1980

Unit and year	Total households	Persons/ household
Essex County		
1950	9,793	3.45
1960	10,072	3.42
1970	10,660	3.20
1980	12,879	2.75
Schroon Town		
1970	460	3.05
1980	604	2.66

(County range, towns only, persons/household, 1970: 2.83 [North Hudson] to 3.43 [Essex]; 1980 range: 2.44 [North Elba] to 3.04 [Newcomb].)

SOURCES: Cornell University, Rural Sociology Department, The People of New York State Counties: Essex, 1973; Cornell University, Rural Sociology Department, Population Information Program, The People of New York, Northern Notebook, 1982; and U. S., Department of Commerce, Bureau of the Census, 1980 Census of Population, Vol.1, Characteristics of the Population, Chapter B, General Population Characteristics, Part 34, New York.

property tax rates (for example, Overall Real Property Tax Rates for Fiscal Years Ended in 1981) were consulted to establish the annual town real property tax rates, including, in the case of the one test town with a village, town-outside-village and town-inside-village rates.[6] Since similar reports for 1982 and 1983 were not yet available, real property tax data for these years were obtained from the real property tax services office of the county in which

[6]The area of a town includes the area of any village wholly or partially within town boundaries. For certain purposes, town real property taxes are levied on all taxable real property, including property in the village, but for other purposes only on taxable property outside the village; for certain expenditures, the taxing basis is optional.

Table 4. SCHROON TOWN: YEAR-ROUND AND SEASONAL OR MIGRATORY HOUSING UNITS, 1970 AND 1980

Year	Total year-round	Vacant year-round	Seasonal or migratory	Total units
1970	---	---	---	1,024
1980	723	119	988	1,711

SOURCES: Data prepared by the New York State Data Center from the 1980 census; and U. S., Department of Commerce, Bureau of the Census, Advance Reports, 1980 Census of Population and Housing: New York, 1981.

a given town is located. These data had to be checked to ensure that they were consistent with those reported to the Department of Audit and Control and used for its annual publications.

Using the data sources described above, a project staff member developed a series of five financial history tables for each of the five test jurisdictions. These tables included a real property tax history table, an other revenue history table, an operating expenditure history table, a capital expenditure history table, and a debt history table.

The nature of these tables is indicated here by Tables 7 through 11, which show the data developed for one of the test jurisdictions. (Tables 12 through 17 are also for this town.) The data categories were either familiar to local officials from their budgetary and other town financial work or were readily

Table 5. SCHROON TOWN: DISTRIBUTION OF YEAR-ROUND HOUSING UNITS, 1980

Type of structure	Number of units
Mobile homes	52
Other single-unit	580
Structures with two or more units	91
Total units	723

SOURCE: Data prepared by the New York State Data Center from the 1980 census.

Table 6. ESSEX COUNTY AND SCHROON TOWN: MEDIAN FAMILY INCOME DATA, 1959-1979

Unit and year	All families	Rural families
Essex County		
1959	$ 4,969	$ 4,788
1969	8,145	8,101 (a)
1979	16,271	-----
Schroon Town		
1979	14,091	14,091

(Range of median family incomes for all Essex County towns in 1979: $11,563 [North Hudson] to $19,223 [Ticonderoga].)

(a) In this case, rural non-farm families.

SOURCES: Cornell University, Rural Sociology Department, The People of New York State Counties: Essex, 1973; data prepared by Paul Eberts and Catheryn Obern, Cornell University, Rural Sociology Department, from the 1980 census; and data prepared by the New York State Data Center from the 1980 census.

understood by them after a brief explanation. For example, the categories used for the two expenditure history tables are very similar to those that the Uniform System of Accounts requires local officials to use to develop an annual operating budget. A noteworthy aspect of the revenue history tables and the operating expenditure history table is the display, in addition to actual annual amounts, of changes from the previous year and annual percentage changes. Since local officials were asked to select projection assumptions for revenue and expenditure items in these tables (as explained in the next section), these extra data were included to help them quickly assess the nature of past changes as one basis for these projections. Definitions for the data items in these tables are provided in the Appendix.[7]

[7]These and the following tables are those actually developed for the interaction with the town supervisor. They contain some anomolies which shortage of time prevented project personnel from correcting before the projection exercise, such as some data expressed in dollars and cents rather than whole dollars and lack of some of the debt data for 1982 and 1983 in Table 11. These anomolies did not hamper the projection exercise.

Table 7.

Real Property Tax History 1975-1983

	1975	1976	1977	1978	1979	1980	1981	1982	1983
Assessed Value	2912968	2970133	3041226	3007390	2973089	3006626	3028169	3018220	3166393
change		57165	71093	-33836	-34301	33537	21543	-9949	148173
%change		1.96	2.39	-1.11	-1.14	1.13	.72	-.33	4.91
Tax Rate	104.22	113.08	115.56	131.88	151.37	149.04	160.9	182.02	188.47
change		8.86	2.48	16.32	19.49	-2.33	11.86	21.12	6.45
%change		8.50	2.19	14.12	14.78	-1.54	7.96	13.13	3.54
Real Property Tax(townwide)	303590	335863	351444	396615	450036	448108	487232	549376	596770
change		32273	15581	45171	53422	-1929	39125	62144	47394
%change		10.63	4.64	12.85	13.47	-.43	8.73	12.75	8.63
Special Distr.	31538	39810	44224	42592	41786	41678	44155	53845	52680
Change		8272	4414	-1632	-807	-107	2476	9690	-1165
%change		26.23	11.09	-3.69	-1.89	-.26	5.94	21.95	-2.16
Special Assess.	0	0	0	0	0	0	0	0	0
change		0	0	0	0	0	0	0	0
%change		.00	.00	.00	.00	.00	.00	.00	.00
Other Prop. Tax	12238	5112	15856	11608	16984	12691	18520	25012	23000
change		-7126	10744	-4248	5376	-4293	5829	6492	-2012
%change		-58.23	210.17	-26.79	46.31	-25.28	45.93	35.05	-8.04
Total	347366	380785	411524	450815	508806	502477	549907	628233.4	672450.1
change		33419	30739	39291	57991	-6329	47430	78326.40	44216.68
%change		9.62	8.07	9.55	12.86	-1.24	9.44	14.24	7.04

Table 8. Other Revenue History 1975-1983

	1975	1976	1977	1978	1979	1980	1981	1982	1983
Sales tax	0	0	0	0	0	0	0	0	0
change		0	0	0	0	0	0	0	0
%change		.00	.00	.00	.00	.00	.00	.00	.00
Revenue from other govts.	16345	16681	18003	46836	25292	15341	14662	12894	9000
change		336	1322	28833	-21544	-9951	-679	-1768	-3894
%change		2.06	7.93	160.16	-46.00	-39.34	-4.43	-12.06	-30.20
Utility	7354	9203	8076	8420	16006	16108	14532	15560	14150
change		1849	-1127	344	7586	102	-1576	1028	-1410
%change		25.14	-12.25	4.26	90.10	.64	-9.78	7.07	-9.06
All Other Local	10864	7938	21650	8582	25535	67736	32122	55270	44675
change		-2126	13712	-13068	16953	42201	-35614	23148	-10595
%change		-21.12	172.74	-60.36	197.54	165.27	-52.58	72.06	-19.17
State	15616	26215	21958	17259	22263	37300	22944	26485	25850
change		10599	-4257	-4699	5004	15037	-14356	3541	-635
%change		67.87	-16.24	-21.40	28.99	67.54	-38.49	15.43	-2.40
Federal	25198	32800	54002	31310	23028	19543	19891	22017	19500
change		7602	21202	-22692	-8282	-3485	348	2126	-2517
%change		30.17	64.64	-42.02	-26.45	-15.13	1.78	10.69	-11.43
Total Other	74577	92837	123689	112407	112124	156028	104151	132226	113175
change		18260	30852	-11282	-283	43904	-51877	28075	-19051
%change		24.48	33.23	-9.12	-.25	39.16	-33.25	26.96	-14.41

Table 9. Operating Expenditure History 1975-1983

	1975	1976	1977	1978	1979	1980	1981	1982	1983
General Govt.	72100	85840	99075	105612	102568	121337	137652	143989	174269
change		13740	13235	6537	-3044	18769	16315	6337	30280
%change		19.06	15.42	6.60	-2.88	18.30	13.45	4.60	21.03
Police	1896	5686	7468	1085	219	0	889	1153	1949
change		3790	1782	-6383	-866	-219	889	264	796
%change		199.89	31.34	-85.47	-79.82	-100.00	.00	29.70	69.04
Fire	0	0	0	0	0	0	0	0	0
change		0	0	0	0	0	0	0	0
%change		.00	.00	.00	.00	.00	.00	.00	.00
Oth. Public Safety	0	0	0	0	0	1500	466	231	650
change		0	0	0	0	1500	-1034	-235	419
%change		.00	.00	.00	.00	.00	-68.93	-50.43	181.39
Health	16286	13536	35249	27941	20629	19276	69523	23136	38684
change		-2750	21713	-7308	-7312	-1353	50247	-46387	15548
%change		-16.89	160.41	-20.73	-26.17	-6.56	260.67	-66.72	67.20
Transportation	173890	169070	191065	166491	158453	198783	262899	247824	303342
change		-4820	21995	-24574	-8038	40330	64116	-15075	55518
%change		-2.77	13.01	-12.86	-4.83	25.45	32.25	-5.73	22.40
Economic asst.	4280	4290	4542	43994	24810	13016	10504	9055	6868
change		10	252	39452	-19184	-11794	-2512	-1449	-2187
%change		.23	5.87	868.60	-43.61	-47.54	-19.30	-13.79	-24.15
Culture and Rec	47109	32253	57721	58829	51397	49068	50995	57946	74559
change		-14856	25468	1108	-7432	-2329	1927	6951	16613
%change		-31.54	78.96	1.92	-12.63	-4.53	3.93	13.63	28.67
Utilities	44343	28091	33208	35695	37782	45340	55385	43437	67912
change		-16252	5117	2487	2087	7558	10045	-11948	24475
%change		-36.65	18.22	7.49	5.85	20.00	22.15	-21.57	56.35
Home and Com.	33517	35873	39665	40260	49388	69554	59780	79339	68394
change		2356	3792	595	9128	20166	-9774	19559	-10945
%change		7.03	10.57	1.50	22.67	40.83	-14.05	32.72	-13.80
Total Oper.	393421	374639	467993	479907	445246	517874	648093	686110	736627
change		-18782	93354	11914	-34661	72628	130219	-41983	130517
%change		-4.77	24.92	2.55	-7.22	16.31	25.14	-6.48	21.53

Table 10. Capital Expenditure History 1975-1983

	1975	1976	1977	1978	1979	1980	1981	1982	1983
General Govt.	1053	7547	1439	1206	1018	1328	2380	1861	4200
Police	0	0	0	0	0	0	0	160	250
Fire	0	0	0	0	0	0	0	0	0
Public Safety	0	0	0	0	0	0	0	0	0
Health	36	14	26	99	64998	25	0	0	4000
Transportation	4786	3608	4770	76323	34028	151629	10831	59619	28800
Economic asst.	0	0	0	0	0	767	0	0	500
Culture and Rec	282	242	515	811	483	475	859	1523	5350
Utilities	0	0	0	0	0	320	794	150	1750
Home and Com.	212	37	785	296	447	971	715	2242	6500
Total	6369	11448	7535	78735	100974	155515	15579	65555	51350
change		5079	-3913	71200	22239	54541	-139936	49976	-14205
%change		79.75	-34.18	944.92	28.25	54.01	-89.98	320.79	-21.67

Table 11. Debt History 1975-1983

	1975	1976	1977	1978	1979	1980	1981	1982	1983
Bonds Issued	0	0	0	38895	55000	55000	35000	0	
Ban Issued	10000	0	0	0	0	0	0	0	
Other Issued	0	0	0	0	0	0	0	0	
Total Issued	10000	0	0	38895	55000	55000	35000	0	0
Bonds Paid	0	0	0	0	7779	18779	29779	45279	
BAN Paid	39075	30293	30293	30293	25753	13500	8500	0	
Other Paid	0	0	0	0	0	0	0	0	
Total Paid	39075	30293	30293	30293	33532	32279	38279	45279	0
Debt Not Subject to Limit	102500	86500	70500	54500	38500	25000	16500	8000	
%Total	66.07	68.74	74.57	52.84	30.89	16.97	15.13	0	0
Debt Subject to Limit	52635	39341	24047	48648	86116	122337	92558	90779	
%Total	33.93	31.26	25.43	47.16	69.11	83.03	84.87	0	0
Total Debt Outstanding	155135	125841	94547	103148	124616	147337	109058		
Constitutional Debt Limit	2279643	2720361	3187219	3765239	4332018	4792215	5249542		
% Debt Limit Exhausted	2.30	1.44	.75	1.29	1.98	2.55	1.76		

Projecting Operating Revenues
and Operating Expenditures

Once the socio-economic and financial history data for a particular jurisdiction were organized in appropriate tables, project staff were prepared to use the Capital Improvement Programming Model with local officials. This was done by traveling to the jurisdiction for one or two meetings for a total of three to six hours. The microcomputer was taken on these trips for use during the interactions.

The original intention was to work with the town supervisor and the other members of the town board as a group, but given the project's time pressures, this proved impractical. The first attempt to schedule meetings with an entire town board indicated that finding times when all or even most of its members could be present and devote themselves only to the use of the model would be difficult. Given project deadlines, the staff therefore decided to work with the town supervisor of each town and any other local officials that the supervisor wished to involve. The rationale for this decision was that as town budget officer and usually de facto chief executive officer, the supervisor is responsible for developing and managing the budget and usually provides a key measure of administrative direction for town operations. In two of the towns, the interaction involved only the supervisor. In two others, the supervisor's bookkeeper also participated. In the remaining jurisdiction, the town supervisor solicited considerable assistance from the town comptroller and, to a lesser degree, from the town clerk, who had formerly been involved in the town's bookkeeping; a town board member also observed part of the interaction and provided some input.

After discussion of the socio-economic data, project staff turned the attention of the local officials to the financial history tables. If possible, these tables were provided to the local officials before the date agreed upon for use of the model so that, if so inclined, they could review them in advance. At this point, the local officials were asked to review the past and current figures for each specific operating revenue and operating expenditure category and to select a projection assumption for each of them.[8] As part of the review process, the project staff encouraged local officials to look for mistakes in the figures as indicated by their knowledge of local finances. Any needed corrections in the data were taken into account as the process continued.

In general, the project staff attempted to maintain a limited and cautious involvement in the selection of projection assumptions by the local officials. Their intention was always to leave the final selection of projection assumptions to the local officials, but where appropriate, to attempt to help them make more informed choices--for example, by pointing out aspects of the

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[8]Local officials were asked to select projection assumptions for only two of the first three items in the real property tax history table, namely, assessed value and the tax rate or assessed value and real property tax. These two choices were used to generate projections both for these two items and for the third item. For example, projections of assessed value and real property taxes enabled the projected tax rates to be calculated by using a template of the spreadsheet software package (see the following material).

financial data that they had overlooked, providing additional helpful information, such as past and current inflation rates, and drawing connections between the financial and socio-economic data.

Two staff members were always involved in the interactions. One guided the interaction with the local officials, while the other helped with this activity to a more limited extent and also operated the microcomputer.

The Capital Improvement Programming Model allowed local officials to choose from among a number of simple projection options. Their choices were applied to the figures for the last year in the three operating revenue and operating expenditure history tables to generate projections for a six-year planning period. These possible projection assumptions were the following:

- No change from the amount for the last year in the tables (for example, for the police category in the operating expenditure history table shown previously, a projection of $1,949 for each year of the planning period, the same amount shown in the table for 1983).

- Change by a constant amount each year (for example, an increase of $3,000 each year from the base figure for 1983);

- Change by varying amounts each year from the base-year figure (for example, increases over a six-year period of $1,000, $2,000, $3,000, $2,000, $500, and $600);

- Change by a constant percentage applied to the base-year figure (for example, an increase of 5% each year--from a base of $10,000 to $10,500 the second year, $11,025 the third year, etc.);

- Change by a varying percentage applied to the base-year figure (for example, annual increases of 5.0%, 5.5%, 6.0%, 6.5%, etc.);

- Change based upon a relationship with another variable (for example an increase of a certain amount in water and sewer revenues for each additional residential housing unit added to the water and sewer systems); and

- Some tailored combination of the above alternatives (for example, no change in the first two years, an increase of $500 in the third year, and a constant percentage increase for the remaining three years).

It is important to note that this projection process required both the active involvement and the special knowledge of their jurisdiction of the participating local officials. These two aspects insured that their understanding of local conditions, needs, and priorities was incorporated into the projections. For example, if they intended to greatly upgrade a certain governmental service over the next three years, to "cap" a certain expenditure item whose growth had gotten out of control, or to gradually increase the real property tax rate, such intentions could be--and were--reflected in the choice of projection assumptions.

Alter and Melniker underscored the need for this feature of the model in these terms:

> Only by incorporating the views of people in the community can the financial analysis and projections reflect where the municipality has been and where it wants to go. Projections of revenues and expenditures must never be made mechanically on the basis of financial facts alone.[9]

After the selection of the projection assumptions for the operating revenue and operating expenditure items, these choices were entered into the templates developed with a spreadsheet software package (SUPERCALC) to calculate projected operating revenues and operating expenditures for the next six years. Within a few minutes, it was possible to give the local officials a printed copy of the outcomes of their choices for examination. If they were not satisfied with these initial projection outcomes, they could change assumptions for a rapid recalculation of the projections with the spreadsheet templates. An illustration of the outcomes of this projection process is provided by Tables 12, 13, and 14.[10]

In addition to projections of revenues and operating expenditures, the local officials were asked to project "recurrent capital expenditures." These are capital expenditures of relatively small value, such as wrenches and filing cabinets, or more significant amounts that are routinely included in the annual budget as the result of a policy decision, such as $25,000 invested each year in road reconstruction. Local officials were asked to review the capital expenditure history table as one basis for making these projections. The format used for this purpose allowed projections for up to three selected functional areas (for example, general government, transportation, and utilities) or one consolidated item for all areas.

Documenting Known Debt Service Commitments

A town's existing debt service commitments for the next six years were calculated on the basis of the debt history table, the jurisdiction's financial reports, its bond book, and information provided orally by local officials. Generally, the process of acquiring this information involved telephone conversations between a project staff member and a knowledgeable local official, such as the town supervisor or the supervisor's bookkeeper, before the project staff members visited the town for the projection exercise. In the case of anticipa-

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[9]Alter and Melniker, Analyzing Local Government Fiscal Capacity, p.10.

[10]In these tables, except for the "Total" category, the "Change " and "% change" rows were used to indicate the local officials' use of the first five projection assumptions described above. A projection of change in terms of absolute amounts was reflected in the "Change" row. Zeros in both rows indicated that no change from the figure for the current year was projected. A figure other than zero in the "% change" row indicated selection of the constant-percentage or varying-percentage projection assumptions. The definitions for the terms used in these tables are the same as those for the financial history tables. See the Appendix.

Table 12. Real Property Tax Projection 1984-1989

	1984	1985	1986	1987	1988	1989
Assessed Value	3100000	3131000	3162310	3193933.	3225872.	3258131.
change	0	0	0	0	0	0
%change	.00	1.00	1.00	1.00	1.00	1.00
Tax Rate	202.13	210.14	218.46	227.11	236.11	245.46
Real Property Tax(townwide)	626609	657939	690836	725378	761647	799729
change	0	0	0	0	0	0
%change	5.00	5.00	5.00	5.00	5.00	5.00
Special Distr.	52680	52680	52680	52680	52680	52680
Change	0	0	0	0	0	0
%change	.00	.00	.00	.00	.00	.00
Special Assess.	0	0	0	0	0	0
change	0	0	0	0	0	0
%change	.00	.00	.00	.00	.00	.00
Other Prop.	21000	19000	17000	15000	13000	11000
Tax	0	0	0	0	0	0
change	-2000	-2000	-2000	-2000	-2000	-2000
%change	.00	.00	.00	.00	.00	.00
Total	700289	729619	760516	793058	827327	863409
change	27838.50	29330.43	30896.95	32541.80	34268.89	36082.33
%change	4.14	4.19	4.23	4.28	4.32	4.36

Table 13. Other Revenue Projection 1984-1989

	1984	1985	1986	1987	1988	1989
Sales tax	0	0	0	0	0	0
change	0	0	0	0	0	0
%change	.00	.00	.00	.00	.00	.00
Revenue from other govts.	10000	11000	12000	13000	14000	15000
change	1000	1000	1000	1000	1000	1000
%change	.00	.00	.00	.00	.00	.00
Utility	14150	14150	14150	14150	14150	14150
change	0	0	0	0	0	0
%change	.00	.00	.00	.00	.00	.00
All other	44675	44675	44675	44675	44675	44675
change	0	0	0	0	0	0
%change	.00	.00	.00	.00	.00	.00
State	25850	25850	25850	25850	25850	25850
change	0	0	0	0	0	0
%change	.00	.00	.00	.00	.00	.00
Federal	19500	19500	19500	19500	19500	19500
change	0	0	0	0	0	0
%change	.00	.00	.00	.00	.00	.00
Total Other	114175	115175	116175	117175	118175	119175
Change	1000	1000	1000	1000	1000	1000
%change	.88	.88	.87	.86	.85	.85

Table 14. Operating Expenditure Projection 1984-1989

	1984	1985	1986	1987	1988	1989
General Govt.	168000	177240	187874.4	200086.2	214092.3	230149.2
change	0	0	0	0	0	0
%change	5.00	5.50	6.00	6.50	7.00	7.50
Police	2000	2000	2000	2000	2000	2000
change	0	0	0	0	0	0
%change	.00	.00	.00	.00	.00	.00
Fire	0	0	0	0	0	0
change	0	0	0	0	0	0
%change	.00	.00	.00	.00	.00	.00
Public Safety	650	650	650	650	650	650
change	0	0	0	0	0	0
%change	.00	.00	.00	.00	.00	.00
Health	42552.4	46807.64	51488.40	56637.24	62300.97	68531.07
change	0	0	0	0	0	0
%change	10.00	10.00	10.00	10.00	10.00	10.00
Transportation	318509.1	336027.1	356188.7	379341.0	405894.9	436337.0
change	0	0	0	0	0	0
%change	5.00	5.50	6.00	6.50	7.00	7.50
Economic asst.	7211.4	7608.027	8064.509	8588.702	9189.911	9879.154
change	0	0	0	0	0	0
%change	5.00	5.50	6.00	6.50	7.00	7.50
Culture and Rec	63000	66465	70452.9	75032.34	80284.60	86305.95
change	0	0	0	0	0	0
%change	5.00	5.50	6.00	6.50	7.00	7.50
Utilities	54600	57603	61059.18	65028.03	69579.99	74798.49
change	0	0	0	0	0	0
%change	5.00	5.50	6.00	6.50	7.00	7.50
Home and Com.	71813.7	75763.45	80309.26	85529.36	91516.42	98380.15
change	0	0	0	0	0	0
%change	5.00	5.50	6.00	6.50	7.00	7.50
Total	728336.6	770164.2	818087.4	872892.9	935509.0	1007031.
	-8290.4	41827.62	47923.16	54805.52	62616.12	71521.95
	-1.13	5.74	6.22	6.70	7.17	7.65

tion debt (for example, bond anticipation notes), estimates of future principal and interest payments were made using current principal payments and interest rates. These debt data were organized into a "schedule of debt service commitments," as illustrated in Table 15.

Developing a Schedule of Proposed Regular Capital Expenditures

Use of the Capital Improvement Programming Model also required that local officials help develop a "schedule of proposed regular capital expenditures" for the six-year planning period.[11] When they first agreed to participate in testing the model, local officials were asked to begin developing information for this schedule in preparation for the return visit by the project staff. They were provided with forms, included here as Exhibits A and B, that could be used to develop such information as total cost, timing of expenditures, proposed method of financing, etc.[12] During the process of testing the model on the return visit, the project staff members consolidated these data on individual capital projects and other capital expenditures into a schedule of proposed regular capital expenditures. This schedule indicated the total amount of funds needed each year over the next six years for the proposed capital expenditures, including amounts needed to service any debt incurred to finance these expenditures. An illustration of this schedule is provided by Table 16.

If these capital expenditures affected operating revenues or operating expenditures, this had to be taken into account in projecting these items. For example, a new public beach facility might result in the hiring of summer lifeguards; as another example, a new truck might decrease repair expenditures. If these types of effects on operating revenues and operating expenditures had not been taken into account in the initial projections, they were incorporated by modifying the relevant projection assumptions and using these new assumptions with the spreadsheet software to generate modified projections.

Generating the Capital Financing Potential Table

The completion of the tasks described above enabled the project staff to use a spreadsheet software template to develop a "capital financing potential" table. This table provided an initial "summary picture" of projected fiscal activity for the next six years based upon the projection assumptions and other information provided by the cooperating local officials. If this initial picture was not satisfactory, the table also provided the basis for improving it in minor or major ways.

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[11]As opposed to recurrent capital expenditures, defined earlier, regular capital expenditures are capital expenditures of large magnitude that require special attention during the process of budget development. Examples include the purchase of expensive parcels of land, the purchase of a minicomputer, or the construction of a new building.

[12]These forms appear as Exhibits 1 and 2 in Office of the Comptroller of the State of New York, Division of Municipal Affairs, Capital Planning Handbook for Local Government (1983).

Table 15. Schedule of Debt Service Commitments 1984-1989

Debt Item	1984	1985	1986	1987	1988	1989
Water district #1	1000	1000				
5% Interest	100	50				
Water district #2						
Highway grader	11000	11000				
6% interest	1320	660				
highway grader	7000	7000	7000			
7.5% interest	1575	1050	525			
Snowplow Truck	5542	5542	5542	5542	5542	
8% interest	2217	1773	1330	887	443	
Health center	11000					
6% interest	660					
Total Debt Service	41414	28075	14397	6429	5985	0

EXHIBIT A

_____
Municipality

PROJECT NO. ____
PRIORITY NO. ____

19__ CAPITAL PLAN

INDIVIDUAL CAPITAL PROJECT REQUEST AND ESTIMATE OF COST

1. Department _____ 2. Division _____

3. Project Title _____

4. Location _____

5. Description _____

_____

_____

_____

6. Purpose and Justification _____

_____

_____

_____

7. Status of Plans: (check)

☐ Plans not needed ☐ Surveys completed ☐ Sketch plans completed

☐ Nothing done on plans ☐ Work on plans scheduled ☐ Detail plans in preparation

☐ Preliminary estimate received ☐ Sketch plans in preparation ☐ Detail plans completed

8. Estimated Cost:

Engineering	$_____
Site Acquisition	_____
Construction	_____
Other ( )	_____
TOTAL	$_____

9. Proposed Method of Construction:

___ Contract ___ Municipal Employees

10. Estimated Project Expenditures by Years:

19___	$_____
19___	_____
19___	_____
19___	_____
19___	_____
19___	_____
Later_____	_____

11. Proposed Method of Financing:

Obligations	$_____
Current Revenues	_____
Special Assessments	_____
User Charges	_____
State and Federal Aid	_____
Reserves	_____
Other	_____
TOTAL	$_____

12. If Obligations are to be issued, State:

Type _____

Period of Years from _____ to _____

13. Effect the Project will have on Operating and Maintenance Expenditures for first three years of operation: (plus or minus)

19___	$_____
19___	_____
19___	_____

Submitted by _____ Date _____

Planning Board Action _____ Date _____

Governing Board Action _____ Date _____

NOTE: Furnish as much of the information requested as is available at the time of preparation. Attach maps and other supporting data that will aid in evaluating the project.

EXHIBIT B

_____
Municipality

PROJECT NO. ----
PRIORITY NO. ----

19 _ _ CAPITAL PLAN

INDIVIDUAL EQUIPMENT REQUEST AND ESTIMATE OF COST

1. Department _____ 2. Division _____
3. Equipment _____
4. Location _____
5. Description _____

_____

_____

6. Purpose and Justification _____

_____

_____

7. Status of Specifications: (check)
   ☐ Not Completed ☐ Completed
8. Available Under:
   - State Contract ☐
   - County Contract ☐
   - Competitive Bidding ☐
   - Municipality ☐
   - Other (Specify) _____ ☐
9. Estimated date needed: _____
10. Estimated Cost: $ _____

11. Proposed Method of Financing:

Obligations	$_____
Current Revenues	_____
Special Assessments	_____
User Charges	_____
State and Federal Aid	_____
Reserves	_____
Other	_____
TOTAL	$_____

12. If Obligations are to be issued, State:
    Type _____
    Period of Years from _____ to _____
13. Effect the asset will have on Operating and Maintenance Expenditures for first three years of operation: (plus or minus)

19___	$_____
19___	_____
19___	_____

Submitted by _____ Date _____

Planning Board Action _____ Date _____

Governing Board Action _____ Date _____

_____

NOTE: Furnish as much of the information requested as is available at the time of preparation.

Attach specifications (if available) and other supporting data that will aid in evaluating the project.

Table 16. Schedule of Prooosed Capital Improvements 1984-1989

Capital Item	1984	1985	1986	1987	1988	1989
Computer		4000	3000	3000		
Dump Trucks		11000	11000	11000	11000	11000
8% interest		4400	3520	2640	1760	880
				11000	11000	11000
				4400	3520	2640
						11000
						4400
Traxcavator	10000	10000	10000	10000	6000	6000
8% interest					4800	4320
Bulldozer		5000	5000	5000	5000	5000
8% interest		2000	1600	1200	800	400
Chlorinators	2500	2500	2500			
Total Capital Outlay	12500	38900	36620	48240	43880	56640

The data in this table require explanation. The supervisor projected purchase of a microcomputer in 1987 with amounts reserved for its purchase in 1985, 1986, and 1987. He anticipated buying three dump trucks with borrowed funds in 1984, 1986, and 1988 and making equal annual payments of $11,000 on these loans along with declining interest payments at a rate of 8%. The bulldozer was to be acquired in 1984 and paid for in the same way. The supervisor planned to reserve $10,000 each year for four years for the purchase of the traxcavator and purchase it in 1987 with the reserved amounts plus $60,000 of borrowed funds; the associated debt service payments would start in 1988. Finally, he projected purchase of three chlorinators in three successive years.

An improved format has been developed for this schedule.

An illustration of such a table is provided by Table 17, again for the same town for which data are shown in earlier tables. The first line of this table summarizes the projections of operating revenues for each year (the sum of projected real property tax items and other revenues from Tables 12 and 13). The next two lines show annual totals for projected operating expenditures from Table 14 and known debt service commitments from Table 15. The subtraction of Lines 2 and 3 from the annual projections of revenues yields Line 4, "Cash Flow After Operations and Debt Service;" if positive, these are amounts that could be used for capital expenditures. Line 5 (and its three sub-lines) allows for the entry of the projected annual amounts for recurrent capital expenditures.[13] The subtraction of these amounts from Line 4 yields a residual for Line 6 termed "Capital Financing Potential," the projected amounts available--if any--each year from operations to finance regular capital expenditures.[14] From these amounts, the annual totals of Line 7 for proposed capital expenditures--from Table 16, the Schedule of Proposed Capital Expenditures--are subtracted, leaving either a capital surplus or a deficit for Line 8. Lines 9 and 10 allow local officials to enter the total of available reserves (one entry only in Line 9 for the first year) and to indicate amounts from these reserves--if any--that they wish to spend in each year (Line 10). Line 11 then shows the situation after the application of reserves, that is, the annual amounts of surplus or new financing required. Finally, Line 12 shows the effects that changing the real property tax rate to eliminate financing surpluses or to raise the new financing required would have on the real property tax rate per $1,000 of assessed value.

Once an initial version of a capital financing potential table was developed for a test town, local officials were given the opportunity to make minor adjustments or to develop alternative fiscal pictures. This could be done by changing projection assumptions for operating revenues, operating expenditures, and recurrent capital expenditures, by changing the proposals for regular capital expenditures (adding or subtracting projects or other capital improvements, changing the timing of expenditures or the proposed method of financing, etc.) or by developing some combination of the foregoing alternatives. By considering several alternative pictures, local officials may gain a better perspective on the sensitivity of their budget to changes in a key operating revenue or expenditure item or proposed capital expenditure. Use of the microcomputer and the spreadsheet software templates makes the development of such alternative pictures a relatively easy task.

For example, for one of the test towns, a staff member developed three fiscal pictures which differed in their assumptions concerning the amounts of revenue to be raised from the real property tax levy. The first picture assumed a very conservative rate of growth (2%) in real property taxes. A less

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[13]If the jurisdiction has already made a commitment for regular capital expenditures for future years (for example, by signing a contract), the relevant dollar amounts could also be included on this line.

[14]As the following material indicates, more accurate terms for Lines 6 and 8 would be "Capital Financing Potential Before Application of Reserves" and "Capital Surplus or Deficit Before Application of Reserves." The shortened terms are used in the table because of space limitations.

Table 17. Capital Financing Potential 1984-1989

Item	1984	1985	1986	1987	1988	1989
Operating Revenues	814464	844794	876691	910233	945502	982584
-Operating Expense	728336.6	770164.2	818087.4	872892.9	935509.0	1007031.
-Debt Service	41413.72	28075.36	14397	6428.64	5985.28	0
Cash Flow After Operations and Debt Service	44713	46554	44207	30911	4007	-24447
-Recurrent Capital						
1. General Govt.	4000	4000	4000	4000	4000	4000
2. Transporation	4000	4000	4000	4000	4000	4000
3. Other Recurrent	13500	13500	13500	13500	13500	13500
Capital Financing Potential	23213	25054	22707	9411	-17493	-45947
Proposed Capital Expenditures	12500	38900	36620	48240	43880	56640
Capital Surplus or Deficit	10713	-13846	-13913	-38829	-61373	-102587
Available Reserves						
Distribution of Reserves						
Financing Surplus/ New financing Required	10713.27	-13845.6	-13913.4	-38828.8	-61372.6	-102587.
Required new Tax rate per $1000 Assessed Valuation	-3.46	4.42	4.40	12.16	19.03	31.49

conservative picture assumed a real property tax levy sufficient to cover the initially projected increases in operating expenditures, but no portion of the proposed capital expenditures. The third picture assumed sufficient growth in the real property tax levy to cover the proposed capital expenditures as well. These three pictures allowed local officials to compare three different projected situations for real property taxes and to compare these situations with their conceptions of the "politically feasible."

IV. PILOT TESTING THE CAPITAL IMPROVEMENT PROGRAMMING MODEL

The Cooperating Jurisdictions

The general process described in the preceding section was used with five cooperating towns in the Adirondack Park region of New York State, a condition of the monies made available for development of the model. Four criteria were used in selecting these towns.

Achieving a significant measure of "geographic spread" in terms of town location within the study region was one criterion. Because this effort was part of a regional project, it was considered important to avoid clustering the test jurisdictions in one or two areas or counties. Hence, the five towns were located in four counties.

A second criterion was that the test jurisdictions should exhibit a range in population size. This resulted in the selection of towns with 1980 populations ranging from 852 to 6,318. Many observers would simply allocate all jurisdictions of this size to one class of "small," but careful observers of these jurisdictions as well as their local officials recognize that governments with such a range of population will generally have substantial differences in many important characteristics. It was considered important to test the adequacy of the model in these different circumstances.

Project staff also wanted to test whether the model could accommodate significant differences in organizational complexity. Consequently, they defined three levels of organizational complexity that, at a minimum, they wished to have represented among the test jurisdictions: towns with no special improvement districts (water, sewer, lighting, etc.) and no villages; towns with one or more special improvement districts as the next level of organizational complexity; and towns with both special improvement districts and a village as the most complex organizational form. For at least one town from the most complex level, they also hoped to work with the village to gain insights concerning what, if any, benefits there would be to use of the model by both a village and its encompassing town. The five test jurisdictions included one town at the simplest organizational level of complexity (no improvement districts or villages), three towns from the middle level of complexity (at least one district, but no village), and one town from the most complex level (with both districts and a village). An effort was made to arrange to test the model with this village, but this did not prove possible. For the tests, project staff began with the town at the simplest organizational level and progressed to the more complex town organizations; this allowed them to concentrate first on constructing the basic structure of the model and then to add additional features to it in an incremental fashion to accommodate increased organizational complexity.

A fourth criterion for selecting test jurisdictions was gaining reaction from town supervisors with different management and planning orientations. Project staff wanted to test the model with town supervisors with different degrees of involvement in planning and directing a town's affairs, particularly in the sense of trying to guide a town towards some vision of its future. It was thought that supervisors with considerable planning and management involvement would provide the most thorough and critical evaluation of the model's potential usefulness and the best suggestions concerning ways in which it could be improved. On the other hand, project staff wanted some feedback on whether the model might also be helpful to town supervisors who lacked the time, inclination, or other necessary resources (financial, staff, political, etc.) to devote considerable energy to planning and managing their governments' affairs. All of the cooperating town supervisors in the five test jurisdictions were involved in planning and managing their towns' affairs, but there also was considerable variation in the degree of this involvement and the specificity of the strategies they were pursuing.

Table 18 lists the five test jurisdictions and provides data relating to the first three selection criteria described above.

Table 18. CHARACTERISTICS OF PARTICIPATING TOWNS

Town and county	1980 population	Number of districts and/or villages
Thurman in Warren County	852	None[a]
Long Lake in Hamilton County	935	2 water districts
Wilmington in Essex County	1,051	Water and solid waste disposal districts
Schroon in Essex County	1,606	Water, lighting, fire protection, sewer, and park districts
Altamont in Franklin County	6,318[b]	6 water, 3 sewer, 1 lighting, and 1 fire protection districts; 1 village

[a]Technically, Thurman had a fire protection district, but its area was identical with that of the town.

[b]This included the 4,478 inhabitants of Tupper Lake Village. For some purposes, the Altamont Town Supervisor thought of all of the town's inhabitants as the town's population; for others, he considered only those inhabiting the town-outside-village area.

SOURCES: State of New York, Office of the State Comptroller, Special Report on Municipal Affairs for Local Fiscal Years Ended in 1982 (1984); and financial reports for 1982 and budget documents for 1983 for these five towns.

Conclusions Based Upon the Pilot Tests

Project staff formulated four major conclusions on the basis of their interactions with the cooperating local officials and the responses to an evaluation questionnaire which the five cooperating town supervisors and one supervisor's bookkeeper completed after these interactions.[15]

First, the microcomputer-assisted Capital Improvement Programming Model provides a framework that officials of small local governments can understand and use. The local officials who participated in the test found the categories and data formats used to organize and present the historical fiscal data for their jurisdictions familiar and understandable. All of them responded that they understood the logic of the model and its products sufficiently to provide explanations to their town governing boards. Moreover, five of the six officials who completed the questionnaire thought that the model and its products were "worth the time" that local officials have to invest in working with the model. The sixth thought that they were useful for his purposes, but doubted that most town supervisors are willing to plan for a six-year period.

This is not to say that it is clear that the model will result in better planning and management by local officials who use it. The tests did not produce specific evidence that use of the model directly altered the formation of 1984 operating budgets by the five town governments or that it will affect their patterns of revenues and expenditures for the six-year planning period. Such possible outcomes would have to be documented through more interaction with local officials and observation of local practices than the duration of this project allowed. These are tasks to be undertaken through continuation of work on the model.

It can be noted, however, that all of the officials who completed the questionnaire saw particular ways in which the projection process and its products could be useful to local officials. Three or more of the local officials who completed the questionnaire agreed with each of the following statements:

- The system enables local officials to gain a longer-term perspective on their jurisdiction's finances that helps with particular decisions;
- The six-year projections provide a helpful starting point for preparing the annual operating budget;
- Use of the system could provide advance warnings of developing financial problems;
- Use of the system could facilitate planning for major capital improvements; and

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[15]To counteract any biases that desires not to offend or disappoint the project staff might have introduced into the questionnaire responses, a strong statement that less-than-frank answers would only encourage them to pursue unproductive directions was included at the beginning of the questionnaire.

- The system provides a means for assessing the potential effects of a major new service, a major new development, the closing of a major facility, etc., on a jurisdiction's financial situation.

Second, the initial use of this model and similar computerized planning and management tools by officials of smaller jurisdictions requires involvement by public providers of technical assistance. All of the local officials who cooperated in this project showed interest and skill in using the Capital Improvement Programming Model. However, they also indicated that they had inadequate amounts of time and staff resources to initially develop the necessary data. As noted before, project staff members found that this task required two to five person-days per jurisdiction for the five test jurisdictions. The foregoing suggests that simply explaining this model and similar tools to officials of small jurisdictions and making them available to them will not result in their use to any significant extent. Help from a provider of technical assistance will be required. Given the conservative spending habits of small jurisdictions, this assistance will probably have to come from a public provider of technical assistance willing to subsidize at least the initial use of such tools in the form of personnel time and other agency resources.

This is not to say that over the longer run this outside assistance would continue to be necessary for all jurisdictions using the Capital Improvement Programming Model. Updating a particular jurisdiction's data history in the second and subsequent years should be a considerably simpler and less time-consuming process. It is conceivable that in many jurisdictions local officials or their staff could be trained to accomplish this task. Also, a microcomputer is necessary for use of the model, and it appears that only a few small local governments in New York State currently have these machines. However, there is a rapidly growing interest among officials of these governments in the acquisition and use of microcomputers, raising the possibility that within a few years this requirement also could be met in many jurisdictions.

A public provider of technical assistance interested in stimulating the use of the Capital Improvement Programming Model by small local governments must be prepared to meet at least four important requirements. First, as just indicated, it must have a microcomputer, preferably, one that it is willing to transport to local government offices. Second, it must have -- or be willing to acquire -- considerable knowledge of local government financial matters, particularly, the intricacies of budget documents and annual financial reports. Third, of course, it must learn to use the Capital Improvement Programming Model. Fourth, it should be willing to commit itself to supporting a program involving three to five years of interaction with local governments using the model to ensure sufficient time for its use to become an "established practice."

A variety of sources of technical assistance and approaches to providing it seems possible. In some New York counties, Cooperative Extension associations and county planning agencies might be interested in promoting and supporting use of the model by small local governments. In other areas, regional planning agencies might be appropriate sources of assistance. Arrangements between these different types of agencies and local governments might be worked out on a one-by-one basis. Alternatively, the provider of technical assistance

might help form an organization of local governments and negotiate a formal agreement with it for providing assistance to each member in the use of the model and other computerized planning and management tools. In all of these cases, an annual fee to partially offset the costs of the program could be charged.

The third major conclusion was that local officials found data from the Local Government Data Base of the New York State Department of Audit and Control accurate and acceptable for the purposes of the Capital Improvement Programming Model. While preparing data for use of the model with a particular jurisdiction, project staff continually sought to identify inaccuracies in the data drawn from this data base. During the test experiences, the cooperating local officials were encouraged to do likewise. While some errors were identified, they were remarkably few and did not hamper use of the model; they were either corrected before the tests, often with the assistance of an able staff member of the Bureau of Municipal Research and Statistics, or at the site, based on information provided by the cooperating local officials. Their knowledge that the data were based upon their annual financial reports and current budgets and their general respect for the technical competence of the Department of Audit and Control seemed to contribute significantly to their acceptance of the accuracy of the data.

On the evaluation questionnaire an opportunity was provided to make comments and suggestions concerning the nature of the data and data formats. Only one supervisor made a suggestion, namely, that the major operating revenue and operating expenditure items should be broken down into subcategories -- for example, types of state aid and subcatagories for "personal services" and "contractual expenses" within major operating expenditure items.

Fourth, it appears reasonable to think that many officials of small local governments are ready to use this type of planning and management tool. Many academic observers and state agency personnel have come to discouraging conclusions concerning the planning and management skills, motivation, or both of part-time officials of small local governments and the likelihood of success of efforts to improve planning and management capacity in these jurisdictions. Whether or not these conclusions are valid in a general sense, project staff found that a number of the cooperating supervisors had well-articulated--although apparently unwritten--objectives towards which they were trying to move in their towns. Also, all of the local officials who completed the evaluation questionnaire saw a number of ways in which the Capital Improvement Programming Model could be used to improve local officials' planning and management capacity. It seems reasonable to think that among the hundreds of small local governments in New York State, there are many other local officials with similar approaches and attitudes toward the use of such planning and management tools. One key to the adoption of such tools is probably that they be specifically tailored to the needs and characteristics of small local governments--for example, that they take into account the limited time and staff resources of local chief executives.

V. FURTHER DEVELOPMENT AND ADDITIONAL APPLICATIONS OF THE MODEL

Further Development

The discussion in this section of possible improvements in the model is based upon a key assumption, namely, that the value of the role of local officials in choosing projection assumptions in models of the type described here outweighs the value of possible gains from use of highly sophisticated approaches to making projections. This assumption is based upon two supporting assumptions.

First, the successful use of such models depends more upon the incorporation into projections of local officials' knowledge of local conditions, needs, and priorities and upon their understanding of the model than upon use of the most advanced forecasting techniques. The magnitudes of change in most of the revenue, expenditure, and debt items in the budgets of small local governments are determined to a significant extent by the choices of local officials concerning the kinds, quantities, and quality of local public services. While a technical assistance provider could use sophisticated techniques to project these items without local input, his or her lack of knowledge of what local officials want to do or think they have to do would make such projections useless except in fortuitous circumstances.

One can imagine a projection process that requires local officials to use sophisticated forecasting methods taught them by the technical assistance provider or that requires local officials to convey their knowledge of the local situation to this provider for use with the advanced methods; but such processes would probably be considerably less useful than the model described here. In the case of the first alternative, it does not seem plausible to think that more than a few chief executives and members of governing boards of small local governments would have the time or the patience to learn to use advanced forecasting methods. The second alternative would result in projections derived by methods not understood by the involved local officials. With little doubt, this would drastically reduce their confidence in the projection process and, consequently, the probability that they would use its products.

This argument is very similar to that made for the primary importance of "core assumptions" by other authors. For example, Martin Wachs quotes and endorses this statement by William Ascher:

> The core assumptions underlying a forecast, which represent the forecaster's basic outlook on the context within which the specific forecasted trend develops, are the major determinants of forecast accuracy. Methodologies are basically the vehicles for determining the consequences or implications of core assumptions that have been

> chosen more or less independently of the specific methodologies. When the core assumptions are valid, the choice of methodology is either secondary or obvious. When the core assumptions fail to capture the reality of the future context, other factors such as methodology generally make little difference; they cannot "save" the forecast.[16]

A model that requires local decision-makers to choose among projection assumptions whose logic they understand allows the incorporation into the projection outcomes of the "core assumptions" of those who usually know the jurisdiction best.

The above statements do not mean that there is no role for more advanced forecasting techniques in financial planning models intended for use by and with officials of small local governments. It does mean that these methods and their outcomes must be used appropriately. Some suggestions on how this might be done will be provided later in this section.

The second supporting assumption is that the Capital Improvement Programming Model is intended to be more of a planning and management tool than a forecasting tool. This model is of the type Larry Schroeder had in mind in writing this statement:

> Users of a fiscal forecast must realize that the utility of the forecast is less dependent upon pure forecasting accuracy (in the sense of predicting the actual future levels of revenues and expenditures) and more upon the ability of the forecast to get policymakers to undertake policies that, in the end, make the original projections inaccurate.[17]

Hence, one must ensure that the use of projection outcomes in informing decision-makers is not threatened by projection procedures whose logic they do not understand or find valid.

Given the above assumptions, there are six major ways in which the Capital Improvement Programming Model might be refined and embellished: the development of software enhancements; the provision of information on the larger fiscal and economic context as a basis for projections; the provision of financial information on comparable jurisdictions; better records of the rationales for selecting projections; alterations in the operating revenue and operating expenditure categories; and linkage of the model to accurate, up-to--date fixed-asset records.

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[16]Martin Wachs, "Ethical Dilemmas in Forecasting for Public Policy," Public Administration Review 42 (November/December 1982): 564, quoting William Ascher, Forecasting: An Appraisal for Policy-Makers and Planners (Baltimore, Md.: Johns Hopkins University Press, 1978), p. 199.

[17]Larry Schroeder, "Local Government Multi-Year Budgetary Forecasting: Some Administrative and Political Issues," Public Administration Review 42 (March/April 1982): 125.

Software Enhancements -- The version of the Capital Improvement Programming Model used for the project reported on here required the use of the SuperCalc, SuperCalc^2, or SuperCalc^3 spreadsheet software packages on an IBM Personal Computer with at least 128 kilobytes of random access memory. This version does not allow the production of any graphic displays (linegraphs, pie charts, etc.) of the historical and projected data. In some instances, graphic displays might be a useful enhancement, making it easier for local officials and the technical assistance personnel to grasp and understand changes in the data. Thus, experimentation with graphic representation of the historical and projected data seems appropriate.

Possible enhancements of the microcomputer capacity for calculating debt service payments also should be explored. The spreadsheet template used for the test experiences required that principal and interest payments for existing debt and new capital expenditures be entered and calculated on an item-by-item basis. Some spreadsheet packages permit the development of these figures on a generalized formula basis. Such an enhancement would significantly facilitate the computing of projected debt service payments.

In addition to improvements internal to the model, two linkages with other software and data bases might be useful. First, efforts are underway to automate the accounting function of some small local governments in New York State. A tie between the projection software and an automated accounting data base would be very useful, since it would enable a jurisdiction to link directly to its revenue and expenditure data as a base for making revenue and expenditure projections; this link might require some adjustments in the data categories used in the model. Second and possibly more important, use of spreadsheet software to develop an "annual budget generator" and linking of this generator with the projection software should be explored. This would establish a closer tie between multi-year financial planning and the development of the annual budget.

Information on the Larger Fiscal and Economic Context. -- There is a potential role in at least five areas for the use of more advanced forecasting techniques to provide a base of information for projection purposes: sales tax revenues, inflation rates for operating expenditures, assessed valuation of real property, interest rates on municipal debt, and personal income of the local population. While in some of these areas there is an element of local administrative control that affects revenues and expenditures, in all of them there is a large element of variation which is exogenous, that is, determined by forces and decisions beyond the control of local officials. For sales tax revenues, assessed valuation of real property, and personal income of the local population, it is possible that techniques could be developed to use small-area data and estimates to adjust or tailor forecasts developed for broader areas. This might provide benchmark figures for local officials to work from in selecting projection assumptions. Forecasts of inflation for certain types of local government operating expenditures and forecasts of interest rates on municipal borrowings could be developed on a generalized basis and might also provide benchmark figures for local officials to use in making projections. As one example of the possibilities in this area, suppose that research indicated that the inflation rate for goods and services purchased by highway departments in Northern New York tended to be 1.05 times a national rate for these same goods and services. A projection of the national rate developed by advanced methods could then be modified by the Northern New York factor and used by town offi-

cials to help formulate a projection assumption for their transportation operating expenditures.

Information on Comparable Jurisdictions. -- "What do other jurisdictions like us do?" is a question often asked by local officials when they are weighing whether or not the levels of certain local government expenditures and revenues are appropriate; thus, data on comparable jurisdictions would seem to be another worthwhile basis for the projection of revenues and expenditures by local officials. At the outset of this project, staff members explored the development of such data. Time and financial constraints halted this effort before substantial progress had been made. However, it was tentatively concluded that groups could be established in terms of criteria relating to service base and revenue capacity. Service base might include measures of population density, highway mileage, and breadth of services provided. Revenue capacity might include measures of local revenue potential, including full-value of taxable real property and personal income.

Better Records of Rationales for Selecting Projection Assumptions. -- While project staff did keep records of the reasons that local officials from the test jurisdictions chose projection assumptions, more organized and thorough notes on these decisions would be a valuable record for projections in future years as well as for other purposes. These notes would allow local officials to easily review why certain projection assumptions were chosen in previous years and thereby help them decide whether the previous rationales were still appropriate. On occasion, local officials making projections might also benefit from knowing what choices local officials in other jurisdictions had made. Improved records could fill this need, too, either in terms of the choices made in a particular jurisdiction of interest ("Supervisor Brown is a savy manager; how did she project this item?") or in terms of a summary of the choices made by numerous jurisdictions in the region.

Alterations in the Operating Revenue and Expenditure Categories. -- It might prove useful to change some of the operating revenue and operating expenditure categories used in the model. For example, local officials might find it easier to project the major operating expenditure categories if they were divided into subcategories for "personal services" and "contractual expenses" (all other operating expenditures except fringe benefits), which are standard budgetary categories in New York. Also, the test version of the model had one category for all state aid and one category for all federal aid. It might prove more useful to make federal revenue-sharing aid and state revenue-sharing aid into one category and provide a separate category for state highway assistance (the "CHIPS" program). When local officials' plans for operating expenditures are closely linked to the magnitudes of these revenue sources (as they may often be), these categories might make the projection process easier for them. There may be other areas in which such links exist and for which different categories would prove helpful.

Linkage of the Model to Fixed-Asset Records. -- The Capital Improvement Programming Model would be more useful to local officials if its outcomes were linked to accurate, up-to-date records on existing fixed assets. Data on age, repair costs, condition, and other characteristics of these assets are one important component of the information local officials should use to develop the schedule of proposed capital expenditures required by the model. By calling attention to this important link and providing information on approp-

riate forms and procedures, technical assistance persons might be able to stimulate better fixed-asset recordkeeping by local officials for use with the model.

Efforts to improve the model along a few of the lines suggested here have been undertaken in cooperation with the Temporary State Commission on Tug Hill, a state agency whose responsibilities include assisting town and village governments in portions of Jefferson, Lewis, Oneida, and Oswego Counties. The commission contracted with Cornell to improve the model in some of the ways mentioned above and to train commission staff in its use. The latter task should provide initial experience in working with and transferring the model to a technical assistance agency that addresses the needs of small local governments.

Additional Applications

The pilot-testing of the Capital Improvement Programming Model was focused upon its use for capital expenditure planning. The model has at least three other potentially significant applications.

Estimating Fiscal Effects of Large Projects. -- The model provides a framework for estimating the effects on a local government's finances of both major private development projects and major infrastructure improvements that the government itself might undertake. The process of developing such estimates would involve using the model to develop two "pictures" of the jurisdiction's likely future fiscal condition. First, the model would be used to develop a picture of the jurisdiction's likely revenues and expenditures, including capital expenditures, if the proposed project were not undertaken. Second, the model would be used to develop revenue and expenditure data for the jurisdiction that would reflect its likely financial situation if the proposed project were undertaken. This second case would require that acceptable estimates of probable effects of the project on the jurisdiction's finances be developed -- for example, the costs of new water lines in the second and third years of the planning period, additional income from increased water usage each year, expenditures for a major highway improvement in the first year, etc. It also would require that local decision-makers envision the changes in expenditures that they otherwise would have made -- for example, no expenditures for additional office space at the town hall because the needed space would be available at the new water system building. Finally, by comparing the "with" and "without" pictures of the jurisdiction's projected fiscal condition, local decision-makers should be able to identify -- at least in a "ball-park" fashion -- the probable effects of the proposed project on the jurisdiction's finances.

Estimating the Effects of Public Economic Development Investments. -- A similar process could be used to evaluate proposed public projects intended to promote local economic development. This also would involve developing "with" and "without" pictures. In addition, estimates of net private benefits from the proposed project would be developed as another component of the "with" picture and would also be taken into account by local decision-makers in evaluating the wisdom of the proposed public investment.

Collecting Data for Evaluating Policy Options. -- The Capital Improvement Programming Model appears to have significant potential for exploring the use of incentives to affect the revenue and expenditure decisions of local officials. As explained above, the model first could be used to create a "without incentives" pictures. Local officials could then be asked how their revenue and expenditure decisions would change if a certain incentive were available -- for example, a state grant-in-aid. This information could then be used to create a "with incentive" picture of projected local finances, and the two pictures could be compared by the investigators. Given the way in which the model is constructed, it would appear to be particularly useful for exploring the use of incentives to affect the capital expenditure decisions of local officials. The potential outcomes under various state-local matching arrangements could be explored as well as incentives for interjurisdictional cooperation in the provision of services.

VI. SUMMARY

This report describes a Capital Improvement Programming Model developed for use with small towns in New York and sets forth conclusions based upon its initial testing.

The model was pilot-tested with five small towns in the Adirondack Park region. Project staff developed socio-economic and historical financial data on each of the five test jurisdictions. In working sessions with local officials of these jurisdictions, they reviewed these data with them and then asked them to choose projection assumptions for broad categories of operating revenues and operating expenditures from a menu of understandable choices. These choices were used with a microcomputer and spreadsheet software templates to develop six-year estimates for these categories as well as annual totals for all operating revenues and operating expenditures. By subtracting the projections of total annual operating expenditures and existing annual debt service commitments (ascertained from local records) from the projections of total annual operating revenues, the software program provided an annual residual available for financing future capital expenditures. These annual projections of available funds were then integrated, again through use of the spreadsheet software, with the local officials' proposed capital expenditures for the six-year period and their proposed means of financing them. If the initial outcomes of this process were unsatisfactory to the local officials, they were able to easily try different combinations of projected operating revenues, operating and capital expenditures, and debt arrangements in search of more satisfactory results. The interactions with local officials were done in their jurisdictions in one or two meetings lasting a total of three to seven hours.

Project staff reached four major conclusions based on their interactions with the cooperating local officials and the responses to an evaluation questionnaire completed by these officials:

- The model provides a framework that officials of small local governments can understand and use;

- The initial use of this and similar computerized planning and management tools by officials of smaller jurisdictions requires involvement by public providers of technical assistance;

- Local officials found the Local Government Data Base of the New York State Department of Audit and Control accurate and acceptable for the purposes of the Capital Improvement Programming Model;

- It appears reasonable to think that, with appropriate technical assistance, many officials of small local governments would use this type of planning and management tool.

There are six major ways in which the model might be refined and embellished: the development of software enhancements; the provision of information on the larger fiscal and economic context as a basis for projections of operating revenues and operating expenditures; the provision of financial information on comparable jurisdictions; better records of the rationales for selecting projection assumptions; alterations in the operating revenue and operating expenditure categories used in the model; and linkage of the model to accurate, up-to-date fixed-asset records. Work in a few of these areas has been undertaken in cooperation with the Temporary State Commission on Tug Hill, a state agency that assists towns and villages in four counties of Northern New York.

In addition to its use for capital expenditure planning, it appears that the model could be used with local officials to estimate the effects on a local government's finances of major private-sector development projects and major infrastructure improvements that the government itself might undertake; to evaluate proposed public projects intended to promote local economic development; and to collect data for evaluating policy options for affecting the revenue and expenditure decisions of local officials, particularly their capital expenditure decisions.

APPENDIX

DEFINITIONS OF TERMS USED IN THE FINANCIAL HISTORY TABLES[1]

Real Property Tax History Table

Assessed value: The valuation of real property which is taxable for a local government's purposes as shown on its assessment roll for the levy of taxes for the relevant fiscal year.

For a town that includes all or a portion of the territory of a village, total assessed valuation is divided into the categories of town-outside-village (TOV) and town-inside-village (TIV). This is done because for certain purposes town real property taxes are levied upon all taxable real property, including property in the village, but for other purposes only on taxable property outside the village.

Tax rate: A jurisdiction's real property tax rate per $1,000 of taxable assessed value for a particular fiscal year.

A town that includes all or a portion of the territory of a village has a town-outside-village (TOV) rate and a town-inside-village (TIV) rate. See the explanation provided above for "assessed value."

Real property tax: The total amount of real property taxes raised by a local government in a given fiscal year by general levies on taxable real property. It does not include special district real property taxes or special assessments. See the following definitions.

For a town that includes all or a portion of the territory of a village, real property taxes are divided into town-outside-village (TOV) real property taxes and town-inside-village (TIV) real property taxes. See the explanation provided above for "assessed value."

Special district real property taxes: The total amount of real property taxes levied according to real property values to support special improvement districts in towns.

Special assessments: The total amount of assessments levied on real property on the basis of benefits received rather than on the basis of real property values.Other property tax items: Various revenue items, such

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[1]Some of these terms are abbreviated in the tables because of lack of space. Most of them are based upon those used for towns and villages in State of New York, Office of the State Comptroller, Special Report on Municipal Affairs for Local Fiscal Years Ended in 1982, Legislative Document No. 92 (1984), pp. 71-73 and 148-151.

as interest and penalties on taxes (including on water and sewer rents), penalties on assessments, settlement of railroad taxes for towns, payments in lieu of taxes, and gains from the sale of tax-acquired property.

Total: The sum of the amounts for real property taxes, special district taxes, special assessments, and other property tax items.

Other Revenue History Table

Sales tax: Receipts from a sales tax distributed to a town or village by a county.

Revenue from other local governments: Generally, payments received for services provided to another local government, such as county payments to a town for plowing county roads during the winter.

Utility revenues: The revenues from the operation of a water, sewer, electric, gas, or steam system.

All other local revenues: All revenues generated locally that are not otherwise classified, such as departmental income (including fees and charges), licenses, permits, rentals, payments for the use of money and property, sales, fines and forfeits, recoveries, refunds, and repayments.

State revenues: Revenues from New York State for general purposes, mortgage tax, highways, youth programs, recreation for the elderly, construction, maintenance, and operation of sewage treatment facilities, etc.

Federal revenues: Revenues from the federal government for revenue-sharing, construction of sewage treatment facilities, community development, etc.

Total other revenues: The sum of the amounts for the non-property tax revenues defined above.

Operating Expenditure History Table

Conceptually, operating expenditures are generally thought of as regularly occurring expenditures for services as well as commodities usually consumed within a year after their purchase. Examples include expenditures for salaries not devoted to capital projects, office supplies, and electricity.

The operating expenditure history table shows operating expenditures by functional areas. For each area, these expenditures represent the sum of its personal service, contractual, and employee benefit expenditures as these expenditures are defined by the New York State Department of Audit and Control.[2] Employee benefit expenditures are allocated to functional areas by

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[2]See, for example, Ibid., p. 72.

first calculating personal service expenditures for each area as percentages of total personal service expenditures; then the total amount for employee benefits is allocated to functional areas based on these percentages. Definitions for the expenditure categories used in the model's operating expenditure history table are as follows:

General government: Expenditures for executive, legislative, judicial, and financial operations.

Police: Expenditures for police services.

Fire: Expenditures for fire prevention and protection, including financial contributions by a town to a fire protection district. This expenditure category does not include real property taxes levied and expended in accordance with a fire district budget.

Other public safety: Expenditures for public safety not included under police or fire (for example, dog control, building inspection, and civil defense).

Health: Expenditures for public health, nursing services, registrar of vital statistics, ambulance, etc.

Transportation: Expenditures for streets, roads, bridges, snow removal, street lighting, public transportation, etc.

Economic assistance: Expenditures to promote the economic welfare of the jurisdiction and its residents.

Culture and recreation: Expenditures for cultural activities, parks, playgrounds, youth and adult recreation, celebrations, etc.

Utilities: Expenditures for a water, sewer, electric, gas, or steam system.

Other home and community services: Expenditures for garbage collection and disposal, cemeteries, drainage, conservation purposes, and other home and community services. The term "other" is used as part of the title for this category because expenditures for utilities are included under the broad category of "Home and Community Services" in the Uniform System of Accounts of the New York State Department of Audit and Control.

Total operating expenditures: This is a total of all of the amounts for the operating expenditures defined above.

Capital Expenditure History Table

Conceptually, capital expenditures generally are considered to consist of amounts spent for assets with a useful life of more than a year. A useful distinction is between recurrent and regular capital expenditures.

Recurrent capital expenditures usually are for capital assets of small value that are routinely budgeted for in the annual operating budget, such as filing cabinets, desks, shovels, and wrenches. However, recurrent capital expenditures can also include large sums that result from a policy decision to

make an annual expenditure of a certain amount -- for example, $25,000 for road improvements.

Regular capital expenditures consist of capital expenditures of large magnitudes that require special attention in the budget process. Examples include expenditures for road construction, bridges, buildings, land, and a minicomputer. Generally, people have regular capital expenditures in mind when they refer to capital expenditures.

The terms used in the capital expenditure history table duplicate those used in the operating expenditure history table. The definitions of these terms are the same, except that here they apply to capital expenditures.

The amounts listed in the capital expenditure history table are those included as "equipment and capital outlay" by the New York State Department of Audit and Control in its computerized data base on municipal finances. They consist of expenses incurred for equipment purchases and for the construction, improvement, and acquisition of fixed assets, such as public buildings, real property, streets, highways, bridges, and sewers. Expenditures for supplies are not included. Such expenditures are considered contractual expenses and are included in operating expenditures.

Debt History Table

Bonds issued: The proceeds of borrowings received through the issuance of bonds for the stated year.

BAN issued: The proceeds of borrowings received through the issuance of bond anticipation notes for the stated year.

Other notes issued: The proceeds of borrowings received through the issuance of other notes for the stated year.

Total issued: The sum of the amounts for the three items defined above for the stated year.

Bonds paid: Payments of principal on bonds during the stated year.

BAN paid: Payments of principal on bond anticipation notes for the stated year. Amounts paid for the redemption of bond anticipation notes from the proceeds of bonds are included.

Other notes paid: Payments of principal on other notes during the stated year.

Total paid: The sum of the payments on principal for the three preceding items.

Debt not subject to limit: The dollar amount of bonds, bond anticipation notes, and other notes outstanding at the end of a jurisdiction's fiscal year which is not chargeable to the state constitutional debt limit for that jurisdiction.

Debt subject to limit: The dollar amount of bonds, bond anticipation notes, and other notes outstanding at the end of a jurisdiction's fiscal year which is chargeable to the state constitutional debt limit for that jurisdiction.

Total debt outstanding: The total of a jurisdiction's debt outstanding at the end of its fiscal year (the sum of the two preceding items).

Constitutional debt limit: The debt limit for the particular jurisdiction for the stated year calculated in accordance with the provisions of the New York State Constitution. For both towns and villages, this limit is 7% of the most recent five-year average full valuation of real property taxable for town or village purposes.

Percent of debt limit exhausted: For each year, the amount of debt subject to limit divided by the amount for constitutional debt limit, converted to a percentage.

SOURCES CONSULTED

Alter, Theodore R., and Melniker, Nancy E. Analyzing Local Government Fiscal Capacity. University Park, Pa.: The Pennsylvania State University, Cooperative Extension Service, 1981.

Ascher, William. Forecasting: An Appraisal for Policy-Makers and Planners. Baltimore, Md: Johns Hopkins University Press, 1978. Cited by Martin Wachs, "Ethical Dilemmas in Forecasting for Public Policy," Public Administration Review 42 (November/December 1982): 562-567.

Cornell University. Department of Rural Sociology. The People of Essex County, New York. Bulletin No. 62-15. Ithaca, N.Y., 1963.

------. The People of New York State Counties: Essex. Bulletin No. 6-15. Ithaca, N.Y., 1973.

Cornell University. Department of Rural Sociology, Population Information Program. The People of New York: Community Profiles for Decision Making. Northern Notebook. Ithaca, N.Y., 1982.

Eberts, Paul R., and Obern, Catheryn. Cornell University, Department of Rural Sociology. Data prepared from computer data tapes from the 1980 Census of Population and Housing.

Honadle, Beth Walter. "Managing Capacity-Building: Problems and Approaches." Journal of the Community Development Society 13 (Fall 1982): 65-73.

Schroeder, Larry. "Local Government Multi-Year Budgetary Forecasting: Some Administrative and Political Issues." Public Administration Review 42 (March/April 1982): 121-127.

State of New York. Office of the State Comptroller, Division of Municipal Affairs, Bureau of Municipal Research and Statistics. Capital Planning Handbook for Local Government. 1983.

------. Local Government Data Base: Summary (computer tape), 1983 version.

------. Overall Real Property Tax Rates for Fiscal Years Ended in 19__: Local Governments in New York State (annual series).

------. Special Report on Municipal Affairs for Local Fiscal Years Ended in 1982. Legislative Document No. 92. 1984.

State of New York. State Data Center. Data prepared from computer data tapes from the 1980 Census of Population and Housing.

Town of Altamont. Town Budget for 1983: Town of Altamont. 1982.

------. Annual Financial Report, Town of Altamont, Fiscal Year Ended December 31, 1981. 1982.

Town of Long Lake. Town Budget for 1983: Town of Long Lake. 1982.

------. Annual Financial Report, Town of Long Lake, Fiscal Year Ended December 31, 1982. 1983.

------. Annual Financial Report, Town of Long Lake, Fiscal Year Ended December 31, 1981. 1982.

Town of Schroon. Town Budget for 1983: Town of Schroon. 1982.

------. Annual Financial Report, Town of Schroon, Fiscal Year Ended December 31, 1982. 1983.

------. Annual Financial Report, Town of Schroon, Fiscal Year Ended December 31, 1981. 1982.

Town of Thurman. Town Budget for 1983: Town of Thurman. 1982.

------. Annual Financial Report, Town of Thurman, Fiscal Year Ended December 31, 1982. 1983.

------. Annual Financial Report, Town of Thurman, Fiscal Year Ended December 31, 1981. 1982.

Town of Wilmington. Town Budget for 1983: Town of Wilmington. 1982.

------. Annual Financial Report, Town of Wilmington, Fiscal Year Ended December 31, 1982. 1983.

------. Annual Financial Report, Town of Wilmington, Fiscal Year Ended December 31, 1981. 1982.

U. S. Department of Commerce, Bureau of the Census. Advance Reports, 1980 Census of Population And Housing: New York. 1981.

------. 1980 Census of Population, Characteristics of the Population: General Population Characteristics, New York. Vol. 1, Chap. B, Pt. 34.