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PROJECTING STATE AND LOCAL OPERATING BUDGETS UNDER VARIOUS GROWTH SCENARIOS

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PROJECTING STATE AND LOCAL OPERATING BUDGETS UNDER VARIOUS GROWTH SCENARIOS

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ABSTRACT

The purpose of the Office of State Planning model is to evaluate the impact of alternative growth scenarios on public budgets. This paper describes the origins, general approach, and equations of the operations portion of the model.

The inputs to this portion of the model are projections of municipal population and employment in any of the target years 1995, 2000, 2005 or 2010. The outputs are public operating expenditures, revenues, and balances.

The model runs at a municipal scale. It cannot measure the impact of different sub-municipal distributions of population or employment if municipal totals remain the same.

The model projects information on local (municipal and county) and State budgets separately. While the model is comprehensive and incorporates data on annual debt service payments, it provides little details on the impact of growth on specific capital systems.

The model's equations are based on work by the State's Office of Economic Policy. Researchers in the office used a cross-sectional analysis of New Jersey municipal data for the years 1973 and 1983 to develop equations that project fiscal outcomes ten years into the future.

Two alternatives were added by OSP to the Office of Economic Policy equations. The first permits the user to calculate revenues using property valuation rather than income as the tax base. The second allows the user to simulate a package of urban policies, which are believed to have a substantial impact on local per-capita income and fiscal outcomes.

The operations model is best used to compare different distributions of municipal growth at the county or regional level. When combined with OSP capital expenditure models, the use of such a tool should be helpful to all those participating in the State Planning process.

I. INTRODUCTION

A. Model Purpose

The purpose of the OSP fiscal impact model is to provide a framework for evaluating the impact of alternative growth scenarios. State and local government fiscal impacts are the benchmark by which different growth targets are compared. The model will help the State Planning Commission quantify the fiscal costs and benefits associated with a given PLAN scenario, so that trade-offs among regions or policy objectives can be made on a more informed basis.[1] The model will also be made available to evaluate growth scenarios submitted by local planners during cross-acceptance.

All users of the model should understand its data sources, assumptions, and techniques. This paper is part of a larger series providing background on different portions of the model.

B. Why Examine Operating Budgets?

It is not easy to distinguish between the capital and operations portions of the government budgets. The simple task of re-surfacing a road, for example, may be considered routine maintenance or capital construction. The distinction will depend on such factors as the nature and timing of the project, type of funds used, and personnel employed.

Wherever accountants draw the line, however, it is clear that operation expenditures -- including salaries, maintenance, and services such as education -- make up the bulk of annual public sector budgets. Operating expenditures are therefore of interest not only to taxpayers, but also to anyone attempting to measure the fiscal impact of growth. This paper describes those portions of the Office of State Planning fiscal impact model that project public sector operating expenditures and revenues under various growth scenarios and PLAN policies.

C. Origin of the Operations Component of the Model

In 1987, Office of State Planning Researchers developed a fiscal impact model using the "comparable cities" technique described in The Fiscal Impact Handbook by Burchell and Listokin.[2] Though comprehensive in scope, the comparable cities technique

[1] The fiscal impact model is thus part of the broader impact analysis called for by the Legislature.

[2] Robert W. Burchell and David Listokin, The Fiscal Impact Handbook: Estimating Local Costs and Revenues of Land Development (New Brunswick: Center for Urban Policy Research, 1978), pp. 97-118.

used national data from the 1972 Census of Governments. After consultation with the authors of the Handbook and future analysis, we decided to develop fiscal impact techniques using more recent, New Jersey-specific data. We also decided to examine infrastructure systems separately, in order to make use of detailed data on existing capacity throughout the State.

In their 18th Annual Report, the New Jersey Economic Policy Council and Office of Economic Policy published a paper entitled "The Fiscal Implications of Growth and Decline"[3] (hereafter referred to as the OEP Study). In this paper, Seneca, Broner, Falk and You examined the impact of growth and decline on the operating budgets of state and local government. The OEP model was originally used to measure the fiscal impact of growth and decline in a small sample of municipalities.

In early 1988, researchers at the Office of State Planning began to consider the OEP model as a way of projecting the impact of growth on operating budgets statewide. After a series of discussions with the authors, the OEP model installed as the operations component of the Office of State Planning computer model.

The operations model is part of a larger fiscal impact model that includes the capital systems of sewers, schools, and roads. OSP researchers have also designed a front-end simulation program that converts population projections into housing demand and "fits" the resulting units on available land. These other components of the model are described in separate technical reports in this series.

II. Model Description

A. Inputs and Outputs

The inputs regard to run this portion of the model are projections of municipal employment and population in any of the target years 1985, 2000, 2005, or 2010.[4] The primary outputs are public operating expenditures, revenues, and balances. These outputs are expressed in 1985 dollars and are divided between local (county, municipality, and school district) and State budgets.

[3] Joseph Seneca, Adam Broner, Laurence Falk and Jong You, "Managing the State Economy: The Fiscal Implications of Growth and Decline," in 18th Annual Report of the Economic Policy Council and Office of Economic Policy (Trenton: State of New Jersey, 1986), pp. 3-39. See Appendix A for synopsis.

[4] The user may select municipal-level projections that are the product of OSP's housing demand model, or input municipal-level numbers directly.

B. Scale and Scope

The model runs at a municipal scale. It projects monies "expended by the municipality" on municipal, county, and school district services.[5] These expenditures include all State aid provided directly to local governments. Excluded are Moines raised and spent only at the county level.

In addition to these local expenditures, the entire State Budget is allocated to municipalities through a separate formula. Thus the model double-counts some expenditures made in the form of State Aid to municipalities.

The model projects State and local revenues as a function of the tax base in each municipality. All revenues and expenditures, no matter what level of government initiates the actions, are therefore projected by municipality only. Results can be aggregated to any level of jurisdiction comprising municipalities.

The operations model is unable to calculate the cost implications of redistributing future growth within a municipality (for example, into centers).[6] The PLAN will likely produce operating economies at this scale. Until a methodology is developed to examine these sub-municipal savings, the operations model may understate PLAN fiscal benefits.

The scope of the operations model is comprehensive, including all state and local government revenues and expenditures on an annualized basis. This portion of the model therefore includes capital costs in the form of lump-sum purchases and annual debt service payments. Thus the results overlap those projected by OSP's sewer, school, and road models. Given the small role played by debt service, however, the model discussed here may be considered a model of operating budgets only.

C. Model Assumptions

The operations model is based on cross-sectional analysis of municipal data over the 1973-1983 period. Functional relationships prevailing during this period are projected forward, unless there is reason to believe they will be affected by the PLAN. Service levels and CAP laws, for example, may be assumed to behave in the future as they did from 1973 to 1983.

The model expresses local fiscal impacts in terms of hypothetical deficits and surpluses. In reality, local budgets are required to come into balance through residual

[5] The concept of revenues collected by the municipality and distributed to other levels of local government preserves the municipal scale of the analysis. It is the accounting convention used in our primary data source for local expenditures, the annual "Statements of Financial Condition of Municipalities" produced by the New Jersey Department of Community Affairs (DCA).

[6] See for example American Farmland Trust, Density-Related Public Costs (1986).

adjustments in the property tax. A future surplus may thereof be interpreted as a decrease in the property tax rate; a future deficit as an increase in the property tax rate.

The model makes no assumptions about the Plan's economic impact. Any such assumptions would have to be provided by the user in the form of changes in growth projections.

III. Model Equations

The model projects results 10 years ahead. Using 1980 or 1985 as the base year and interpolating growth figures for intermediate years, one can then make projections for any of the target years 1995, 2000, 2005, 2010. The following sections describe the equations of the operations model. (Please see appendix B for further details on functional forms and parameters used).

A. Expenditures Equations

1. Local Expenditures

Local expenditures in municipality n in time t + 10 are a function of:

- local expenditures in municipality n in time t
- municipal at-place employment in time t
- municipal at-place in time t + 10 (user input)
- municipal population in time t
- municipal population in time t + 10 (user input)
- municipal per-capita income in time t
- municipal per capita income in time t + 10
  {= function of municipal per-capita income in time t;
  change in municipal employment;
  change in municipal population;
  municipal population density in time t}

2. State Expenditures

State expenditures in municipality n in time t + 10 are a function of:

- total state expenditures in time t + 10 {estimated}
- municipal population in time t+ 10 {per user}
- municipal per-capita income in time t+10 {see above}

- statewide per-capital income in time t + 10 {calculated from sum of projected municipal incomes}

B. Revenue Equations

1. Local Revenues

An analysis of historical data showed that the accuracy of local revenue projections varies across suburban and urban areas, depending on whether per-capita income or assessed value was used as the tax base. The income method, used in the OEP study, seemed to perform better in urban areas. The property valuation method, which perferred by many planners, seemed to perform slightly better in suburban areas.[7] The user may select either method.

Method A -- Income as tax base

Revenues are estimated at 10.6% of projected total local income.

Method B -- Assessed value as tax base

1985 per-capita assessed commercial and residential valuations are combined with future employment and population to project future property tax levy at current tax rates. All other municipal revenues are increased on a per-capita basis or frozen, depending on the program. (Relevant data are contained in the 1985 Annual Report of the DCA Division of Local Government Services).

2. State Revenues (income method only)

Revenues are estimated at 10.075% of projected local income.

IV. Urban Policy Simulation

A. The Importance of Local Income

Early test runs of the model indicate that local personal income can be very important determinant of fiscal outcomes. When income is taken as the tax base, the

[7] No doubt, the wide divergence in per-capita property value growth rates in urban and suburban areas in the 1980's has a lot to do with the difference between the two methods. See appendix C for results of a historical test in the municipalities of Dumont (Bergen), Plainsboro (Middlesex) and Trenton (Mercer).

impact of increased income on revenues is immediate and positive. Increased income may increase local spending, but it may also decrease State spending in a locality due to the nature of the State's equalization formulas.

A simple example will illustrate this last point. It is alleged that the State runs a deficit in Newark, because of the explictly redistributive policies required to support the low-income populations who live there.[8] Figure 1 and Table 1 display a break-even analysis for State government expenditures and revenues in Newark in the year 1995. These data are based on equations in the OEP model, holding population and employment constant and varying income. Figure 1 shows that according to OEP model, the State could "break even" on Newark if per-capita income there rises to almost $14,000 from current level of $6,400.

Table 2 reports the results of another break-even analysis, one which attempts to balance the State budget for Newark by increasing population there. Although increasing Newark's population in 1995 increases per-capita income slightly, the net effect, according to the OEP model, is to increase the State's operating deficit there. We conclude that income-enhancing programs may need to supplement growth incentives if we are to improve fiscal conditions in urban areas.

Fortunately, this is the position taken by the Preliminary State Plan, although its sections on urban programs do not target per-capita income as such. Two questions remain. What are these programs and how do we stimulate them in the operations model?

Beginning with the last question, it seems unlikely that the original OP model can perform this simulation. The OP model calculates local per-capita income as a function of existing per-capita income, existing density, and growth. To the extent that historical relationships do not hold in a PLAN world (e.g., density is no longer associated with poverty; wealthier populations are attracted to cities by new programs and amenities), the income portion of the model will need to be adjusted.

B. Lessons from Cleveland

Quantitative estimates of the impact of urban programs on local income are rare. Perhaps the best such estimates are to be found in a 1981 study conducted by researchers at the Brooking Institution entitled Futures for Declining City -- Simulations for the Cleveland Area.[9]

[8] The OEP assumption about Newark's relative contributions to and receipts from the State treasury is debatable, but the assumption does not fundamentally change the conclusion that other things equal, increased local income tends to improve government fiscal balances.

[9] Katharine Bradbury, Anthony Downs and Kenneth Small, Futures for a Declining City -- Simulations for the Cleveland Area, Studies in Urban Economics (New York: Academic Press, 1981).

In this work, Bradbury, Downs and Small projected the impact of a combination of urban policies on economic outcomes in Cleveland and its SMSA over the 1980's. The policies simulated included a mix of urban revitalization aid, planning, and tax reform policies not unlike those found in the urban strategies and polices of the New Jersey State Plan. This study therefore provides the only available quantitative estimates of the impacts of the types of policies recommended by the Plan for tier 1 and "sweet 16" communities.

The lesson of the Cleveland study for New Jersey urban policy will not be discussed at length. For present purposes, we describe only how the Cleveland study was used to estimate the impact of Plan urban programs on local per-capita income.

C. Plan Plus: Urban Policy Simulation in the Operations Model

If the user of the OSP operations model elects to simulate active urban revitalization policies ("PLAN PLUS" in OSP parlance), then the projected percentage change in real per-capita income is increased by 4.8% in tier 1 communities. Admittedly a rough estimate, this impact was calculated by taking the Cleveland study's estimate of the impact of an "all-out" urban revitalization program (+7.9% over 10 years) in Cleveland city, and subtracting that portion attributable to suburban growth management (+3.1%).[10] The logic here is that the OEP model already calculates the impact of redistributing growth from suburban to urban areas; it is the impact of other urban programs for which we must use the Cleveland estimates.

The additional urban programs simulate in the Cleveland study (hence in our PLAN PLUS scenario) consist of the following:

I. JOB STIMULUS PACKAGE -- improved subsidy and loan program for private investment and job training targeted to local residents; regulatory streamlining; and a relocation assistance center.

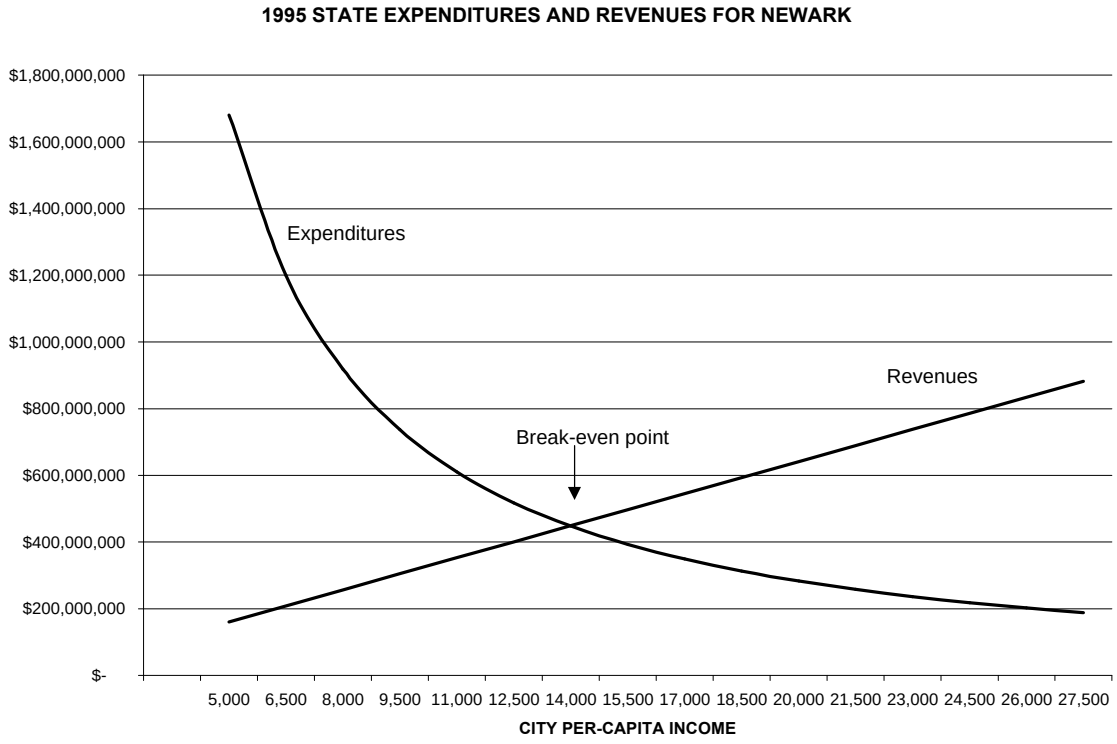
II. HOUSING REHABILITATION PACKAGE -- financial incentives; mortgage funding; neighborhood targeting; and the use of regulations to improve housing quality.

III. TRANSIT IMPROVEMENT PACKAGE-- rail system upgrading, busways and priority lanes; and a loop subway for the CBD.

IV. FISCAL EQUALIZATION PACKAGE-- metro tax-base sharing.[11]

[10] See Bradbury, Downs and Small, Appendix B, pp. 216-237.
[11] See Bradbury, Downs and Small, chapters 4-7.

FIGURE 1



Source: Simulation using OEP model parameters.

TABLE 1

BREAK-EVEN ANALYSIS
STATE EXPENDITURES AND REVENUES FOR NEWARK, N.J.

TARGET YEAR: 1995
ASSUMPTION: EMPLOYMENT GROWS 8% POPULATION STABLE
VARIABLE: PER CAPITA INCOME

1985 START VARIABLES		1995 STATE AVERAGES (FIXED)	
POPULATION:	318,468	PC SPENDING:	1,468
EMPLOYMENT:	165,550	PC INCOME:	15,081

POP95	EMP95	INC95	STATE EXP95	STATE REV95	REV-EXP
318,468	178,794	5,000	1,680,226,785	160,428,255	(1,519,798,530)
318,468	178,794	6,500	1,199,677,847	208,556,732	(991,121,115)
318,468	178,794	8,000	918,920,300	256,685,208	(662,235,092)
318,468	178,794	9,500	736,967,405	304,813,685	(432,153,720)
318,468	178,794	11,000	610,516,185	352,942,161	(257,574,024)
318,468	178,794	12,500	518,099,213	401,070,638	(117,028,575)
318,468	178,794	14,000	447,937,056	449,199,114	1,262,058
318,468	178,794	15,500	393,060,578	497,327,591	104,267,013
318,468	178,794	17,000	349,099,297	545,456,067	196,356,770
318,468	178,794	18,500	313,182,070	593,584,544	280,402,474
318,468	178,794	20,000	283,349,777	641,713,020	358,363,243
318,468	178,794	21,500	258,222,693	689,841,497	431,618,804
318,468	178,794	23,000	236,802,808	737,969,973	501,167,165
318,468	178,794	24,500	218,351,478	786,098,450	567,746,972
318,468	178,794	26,000	202,311,053	834,226,926	631,915,873
318,468	178,794	27,500	188,253,132	882,355,403	694,102,271

Source: Simulation using OEP model parameters.

TABLE 2

BREAK-EVEN ANALYSIS
STATE EXPENDITURES AND REVENUES FOR NEWARK, N.J.

TARGET YEAR:	1995
ASSUMPTION:	EMPLOYMENT GROWS 8%
VARIABLE:	POPULATION GROWTH

1985 START VARIABLES		1995 STATE AVERAGES (FIXED)	
POPULATION:	318,468	PC SPENDING:	1,468
EMPLOYMENT:	165,550	PC INCOME:	15,081
PC INCOME:	6,494		
DENSITY:	13,193		

POP95	PCT CHG 85-95	EMP95	INC95	STATE EXP95	STATE REV95	REV-EXP
250,000	-21.5%	178,794	6,514	939,179,377	164,068,590	(775,110,787)
260,000	-18.4%	178,794	6,528	973,946,803	171,013,224	(802,933,579)
270,000	-15.2%	178,794	6,543	1,008,605,733	177,974,581	(830,631,152)
280,000	-12.1%	178,794	6,556	1,043,160,109	184,952,137	(858,207,972)
290,000	-8.9%	178,794	6,570	1,077,613,598	191,945,409	(885,668,189)
300,000	-5.8%	178,794	6,582	1,111,969,615	198,953,939	(913,015,676)
310,000	-2.7%	178,794	6,595	1,146,231,352	205,977,302	(940,254,050)
320,000	0.5%	178,794	6,607	1,180,401,795	213,015,095	(967,386,700)
330,000	3.6%	178,794	6,619	1,214,483,750	220,066,940	(994,416,810)
340,000	6.8%	178,794	6,631	1,248,479,851	227,132,480	(1,021,347,371)
350,000	9.9%	178,794	6,642	1,282,392,580	234,211,377	(1,048,181,203)
360,000	13.0%	178,794	6,653	1,316,224,281	241,303,311	(1,074,920,970)
370,000	16.2%	178,794	6,664	1,349,977,166	248,407,978	(1,101,569,188)
380,000	19.3%	178,794	6,674	1,383,653,331	255,525,091	(1,128,128,240)
390,000	22.5%	178,794	6,685	1,417,254,763	262,654,375	(1,154,600,388)
400,000	25.6%	178,794	6,695	1,450,783,348	269,795,568	(1,180,987,780)

Source: Simulation using OEP model parameters.

The simulation of these policy packages in PLAN PLUS should not be interpreted as a State Planning Commission endorsement. It is not even clear that these polices are feasible in the tier 1 communities, or that income increases will be close to the 4.8% estimated for Cleveland. Nor have we included the costs of these programs in the model. Whether funded by the State or federal government, such costs could be considerable.

In spite of these cautions, we believe that urban policy simulation is a necessary addition to the fiscal impact model. It produces a more accurate simulation of PLAN intent; provides some measures of the fiscal benefits of these programs; and encourages clearer thinking about the means and ends of urban policy. While the methodology is tentative, use of the results of the Cleveland study seems a promising first step in this direction.

V. Conclusion

This paper has described the OSP fiscal impact model that projects further operating expenditures and revenues under various growth scenarios. These figures can be projected for any of several target years. Estimates of municipal population and employment must be input into the model; results (in 1985 dollars) are reported at the municipal level.

The use of such a tool for State planning may be helpful. By entering growth targets at a municipal scale and aggregating results to a county, regional, or State level, one can get an idea of the impact of the PLAN's growth redistribution strategy. Any PLAN that can be expressed as a set of municipal population and employment projections can be tested in this fashion. The model is capable of enhancement) the urban policy simulation being just one example). Along with OSP's capital impact models, the operations model should greatly improve the quality of information available to policymakers during the Cross-acceptance process and beyond.

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Appendix A -- Synopsis of OEP Study

Subject: "The Fiscal Implications of Growth and Decline." An economic research paper written by the Office of Economic Policy, and published in 1986 as part of the 18th Annual Report of New Jersey's Economic Policy Council.

I. Abstract

The study examines sample of 13 fast-growing and 18 declining New Jersey municipalities to determine the effect of growth and decline on state and local government budgets.

a. Using econometric techniques, the study identifies "universal" relationships between changes in demographic and fiscal variables in New Jersey.

b. Using these parameters, government revenues and expenditures generated by the two samples of municipalities are projected into the future under the assumption that 1) the fast-growing municipalities grow as predicted in a DOT report on the route-one-corridor, where all 13 are located, and 2) the 18 declining municipalities repeat three performances of the last ten years.

c The 1995 fiscal balances (revenues minus expenditures) calculated under this scenario are then compared to the balances that would prevail if both samples grew at the statewide average rate of growth.

II. Selected Quantitative Results

Tables A and B Below depict the hypothetical surpluses from growth and deficits from decline for the two groups of municipalities. In both tables, the fiscal balances represent deviations from balances that would prevail under the statewide average rate of growth.

Table A. Hypothetical surplus from growth; deficit from decline in the year 1995. ($000)

SAMPLE	AGGREGATE MUNICIPAL BUDGETS	STATE BUDGET	TOTAL
13 Route 1 corridor municipalities	+50,435	+61,879	+112,314
18 declining cities	-248,026	-588,687	-836,713

Table B. Cumulative hypothetical surplus from growth; deficit from decline in the years 1985-1995.* ($000)

SAMPLE	AGGREGATE MUNICIPAL BUDGETS	STATE BUDGET
13 Route One corridor municipalities	+198,585	+243,956
18 declining cities	-976,470	-2,318,087

* present value of balances at a discount rate of 5 per cent

Appendix B -- Equations From OSP Study

Reprinted from Seneca, et al., "Fiscal Implications of Growth and Decline," pp. 37-39.

EXHIBIT 4

Regression Analysis of Expenditures

The regression equation for municipal expenditures is given by:

Dependent Variable (S)

Independent Variable	Estimated Coefficient	t-Statistic
Constant	-0.102792	-12.107
X_1	0.03864	3.3524
X_2	0.16188	3.6994
X_3	0.582751	23.217

$F(3,488) = 253.11$ $R^2 = 0.6088$

Where: S = log (1983 expenditures*/1973 expenditures*)
X_1 = log (1983 employment/1973 employment)
X_2 = log (1983 per capita money income*/1973 per capita money income*)
X_3 = annual rate of population growth 1975-83

* in real (1985) dollars.

To obtain the 1995 and 2005 estimates, it was necessary to have population, employment and per capita income figures. Department of Transportation estimates were taken for population and direct employment, which were subsequently used in our input-output model to generate multiplier effects. Per capita money income was estimated by another regression model with the per capita figure in 1985 dollars as the dependent variable. The regression equation is given below:

Dependent Variable (P_t)

Independent Variable	Estimated Coefficient	t-Statistic
Constant	-0.776861	-3.0907
P_{t-10}	1.054340	39.546
X_1	0.049202	3.8234
X_3	0.582828	1.8444
X_4	0.129672	3.8234
X_5	-0.010190	-4.2026

$F(5,486) = 369.995$ $R^2 = 0.7906$

Where: P_t = log (1983 per capita money income*)
P_{t-10} = log (1973 per capita money income*)
X_1 = log (1983 employment/1973 employment)
X_3 = average annual growth rate of population, 1975-83
X_4 = log (population density 1975)
X_5 = the square of X_4, designed to account for nonlinearity of the equation.

* in real (1985) dollars.

State Expenditure Estimates

State expenditures on particular municipalities are explained by:

Dependent Variable (S_i)

Independent Variable	Estimated Coefficient	t-Statistic
Constant	-0.138272	-3.8524
Log(P_i)	-1.28400	-12.9618

$F(5,486) = 369.995$ $R^2 = 0.7906$

Where: S_i = log (per capita state expenditures in the particular municipality /average per capita state expenditure)
Log(P_i) = log (per capita money income in the particular municipality in $1985/average per capita state money income in $1985)

It should be noted that this regression differs from those previously presented. S_i, the dependent variable is expressed as a fraction of average state per capita spending. The regression equation implies:

$$\text{Per Capita State Spending in Municipality} = (\text{average State Spending})\, e^{-0.138272}\, P_i^{-1.284}$$

The right side of the equation includes an absolute term, average state spending, explaining the increase or decrease in expenditures due to overall economic growth or decline. Is also includes a relative term P_i which is per capita income in the particular municipality relative to per capita income in the State.

The equation implies that State expenditures for municipality i are proportional to the total State expenditures for all municipalities multiplied by the municipality's share of the State's population given the relative per capita income. Thus, whether a given municipality receives more or less State expenditures than its share of population depends on the relative per capita income. The break-even level of relative per capita income is 0.8979, i.e., a municipality with its per capita income higher than about 90 percent of the State average will receive less State expenditures than it population share, and vice-versa. The fact that the break-even level of relative income of about 0.9 rather than 1.0 implies that low-income municipalities receive State expenditures that are more than inverse in proportion to relative income.

Appendix C -- Comparison of Revenue Methodologies

EVALUATION OF REVENUE-PROJECTION METHODOLOGIES
USING 1975 DATA TO PREDICT 1985 LOCAL REVENUES

I. Dumont Boro, Bergen County

		Projection Techniques		
QUANTITY	**ACTUAL 1985**	**OSP**	**SLERPC**	**OEP**
ASSESSED VAL	294,349,900	271,589,808	255,528,227	NA
PTAX REV	14,025,641	12,900,516	12,137,591	NA
OTHER REV	2,123,070	1,494,021	1,494,021	NA
P.C. INCOME	13,811	NA	NA	11,820
TOTAL REV	**16,148,711**	**14,394,537**	**13,631,612**	**22,562,376**

II. Plainsboro Twp., Middlesex County

		Projection Techniques		
QUANTITY	**ACTUAL 1985**	**OSP**	**SLERPC**	**OEP**
ASSESSED VAL	510,336,500	302,961,986	1,171,435,064	NA
PTAX REV	9,995,682	5,513,908	21,320,118	NA
OTHER REV	1,434,256	3,132,953	3,132,953	NA
P.C. INCOME	20,701	NA	NA	18,028
TOTAL REV	**11,429,938**	**8,646,861**	**24,453,071**	**17,302,856**

III. Trenton City, Mercer County

		Projection Techniques		
QUANTITY	**ACTUAL 1985**	**OSP**	**SLERPC**	**OEP**
ASSESSED VAL	295,817,760	565,316,952	482,271,171	NA
PTAX REV	36,955,516	76,883,105	65,588,879	NA
OTHER REV	38,679,186	46,731,228	46,731,228	NA
P.C. INCOME	8,699	NA	NA	7,978
TOTAL REV	**75,634,703**	**123,614,333**	**112,320,107**	**77,708,547**

Note: OEP and OSP methods are, respectively, the income and property value methods described in the text. SLERPC is an additional property value method.

Following are brief profiles of the municipalities tested:

DUMONT
1975 pop -- 20,420
1985 pop -- 17,979

1975 emp -- 1,943
1985 emp -- 1,837

1985 per-capita income -- $13,811

PLAINSBORO
1975 pop -- 2,005
1985 pop -- 9,040

1975 emp -- 920
1985 emp -- 3,262

1985 per-capita income -- $20,701

TRENTON
1975 pop -- 106,625
1985 pop -- 91,743

1975 emp -- 75,699
1985 emp -- 64,188

1985 per-capita income -- $8,699

Appendix D -- Expert Committee

A draft of this (and four other) Technical Reference Documents (TRDs) were sent to a volunteer committee for their review. The members of that committee were selected by OSP for their expertise in subjects related to the material discussed in one or more of the TRD's. The committee met at an all day technical workshop, held March 6th, 1990.

Many of the committee's recommendations have been incorporated into this version of the Technical Reference Documents. Notwithstanding the committee's valuable contributions, the committee is not responsible for the model's products. Other committee comments have become the basis for further OSP research efforts.

OSP wishes to acknowledge this panel of experts and to thank them for their generous contributions of both time and ideas. The following is a list of the committee members who assisted OSP in the review of the Technical Reference Documents.

Dr. Thomas Bogart	Princeton University, Dept. of Economics
Dr. Robert Burchell	Rutgers University, Center for Urban Policy Research
Dr. Michael Danielson	Princeton University, Woodrow Wilson School
Mr. James Diffley	NJ Dept. of Treasury, Office of Tax Analysis
Dr. Larry Doolan	NJ Dept. of Community Affairs, Housing Research
Mr. John Moore	NJ Dept. of Transportation, Planning and Research
Mr. Marc Pfeiffer	NJ Dept. of Community Affairs, Local Government Services
Dr. Julian Wolpert	Princeton University, Woodrow Wilson School
Dr. Francis Tannian	University of Delaware, College of Urban Affairs and Public Policy
Dr. Jong You	NJ Dept. of Commerce and Economic Development, Office of Economic Policy
Mr. Lou Young	NJ Office of Legislative Services