

LOC 6.2/T71/1986

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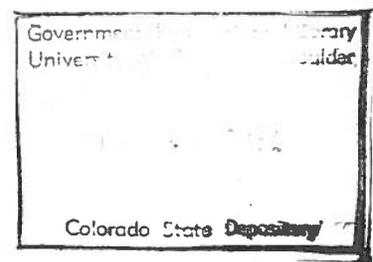
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 /Trend analysis



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# Trend Analysis



# Financial Assistance

**Division of Local Government**  
**Department of Local Affairs**

1313 Sherman St. Rm. 521  
 Denver, Colorado 80203  
 (303) 866-2156

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## HOW TO RUN TREND ANALYSIS

### Preparing Worksheet

- 1) Insert Lotus system disk in drive A.
- 2) Insert Trend analysis disk in drive B.
- 3) When prompt A> appears type lotus and hit return. *twice*
- 4) Type /fr and hit return.
- 5) Type in data on worksheet. When complete, type /fs and hit return, then type r.

### Preparing Graphs

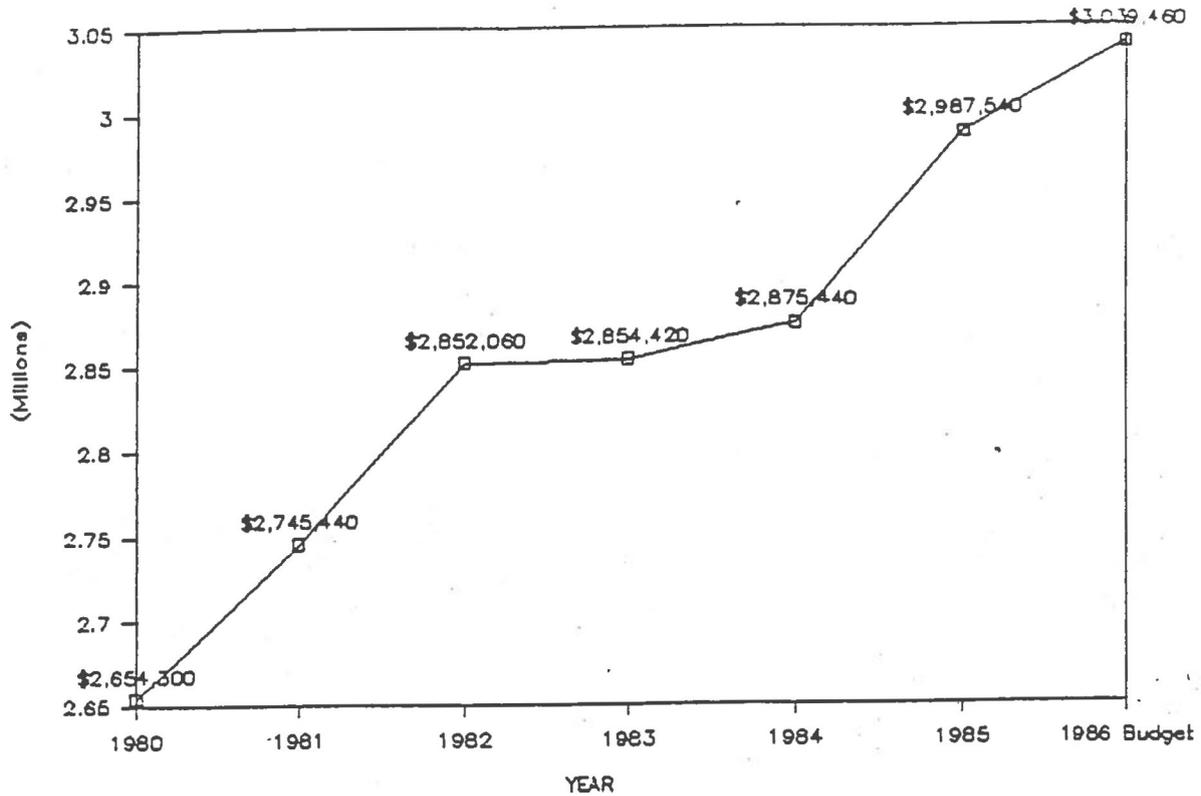
- 1) Type /gnu and pick graph to update with the new information. Don't forget the name of the graph!
- 2) Ex: ASSVAL2 - Move cursor to ASSVAL2 and hit return. You'll view the graph. If the graph looks fine, type qs.
- 3) Move cursor to ASSVAL2.PIC and return, type r. *to get next graph hit nu*
- 4) When all graphs have been updated, type q/fs and return, then type r.
- 5) Exit 1-2-3 by typing /qy.

### Print Graphs

- 1) Type p, insert printgraph floppy in drive A and hit return.
- 2) Type i, choose graphs for printing by moving cursor up and down and hitting space bar on graphs desired (in printing order).
- 3) Type ag.
- 4) When done, exit system.

GRAPHS

## CHANGE IN ASSESSED VALUATION



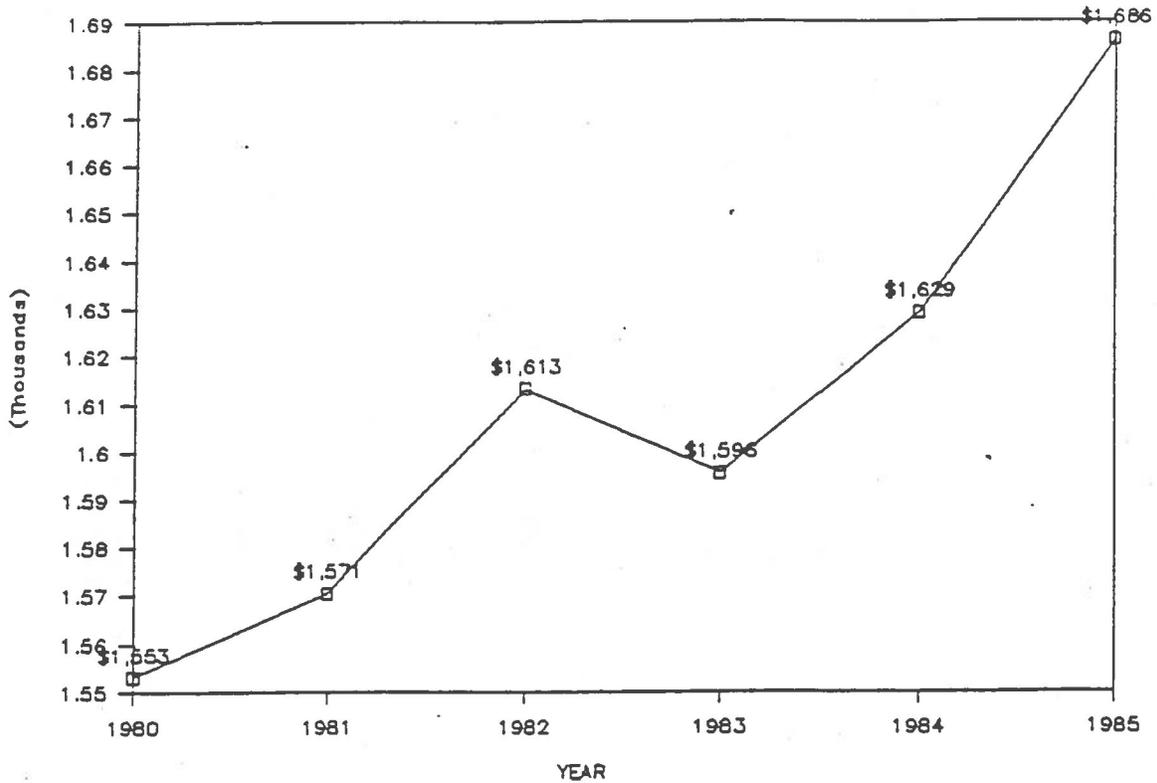
### WORKSHEET INPUT

On 1-2-3 worksheet, input:  
Line 4 - Valuation data

### INFORMATION SOURCES

- Valuation data -
- property taxation annual report
  - local government records
  - call Denver, 866-2156
  - financial compendiums - obtain from DLG
  - financial data base on prime computer (use modem)

### ASSESSED VALUATION PER CAPITA



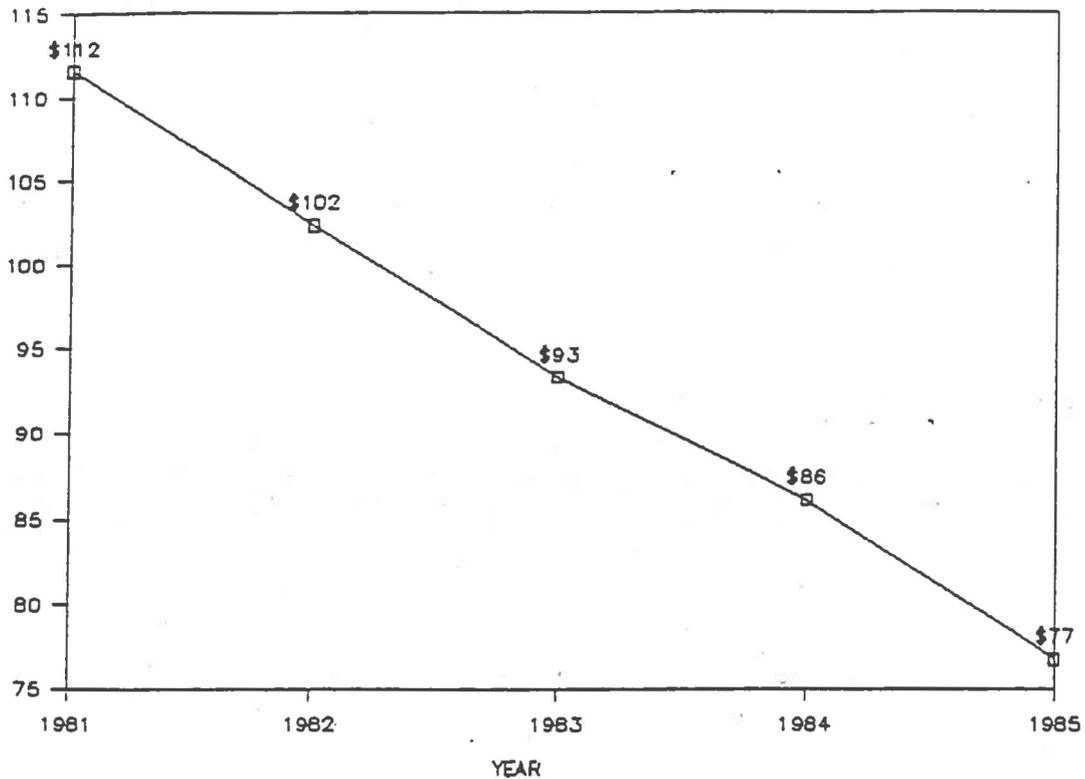
#### WORKSHEET INPUT

On 1-2-3 worksheet, input:  
Line 3 - Population data  
Line 4 - Valuation data

#### INFORMATION SOURCES

Valuation data - See ASSVAL1  
Population data - population estimate from state demographer  
- call Denver 866-2156

### G.O. DEBT PER CAPITA



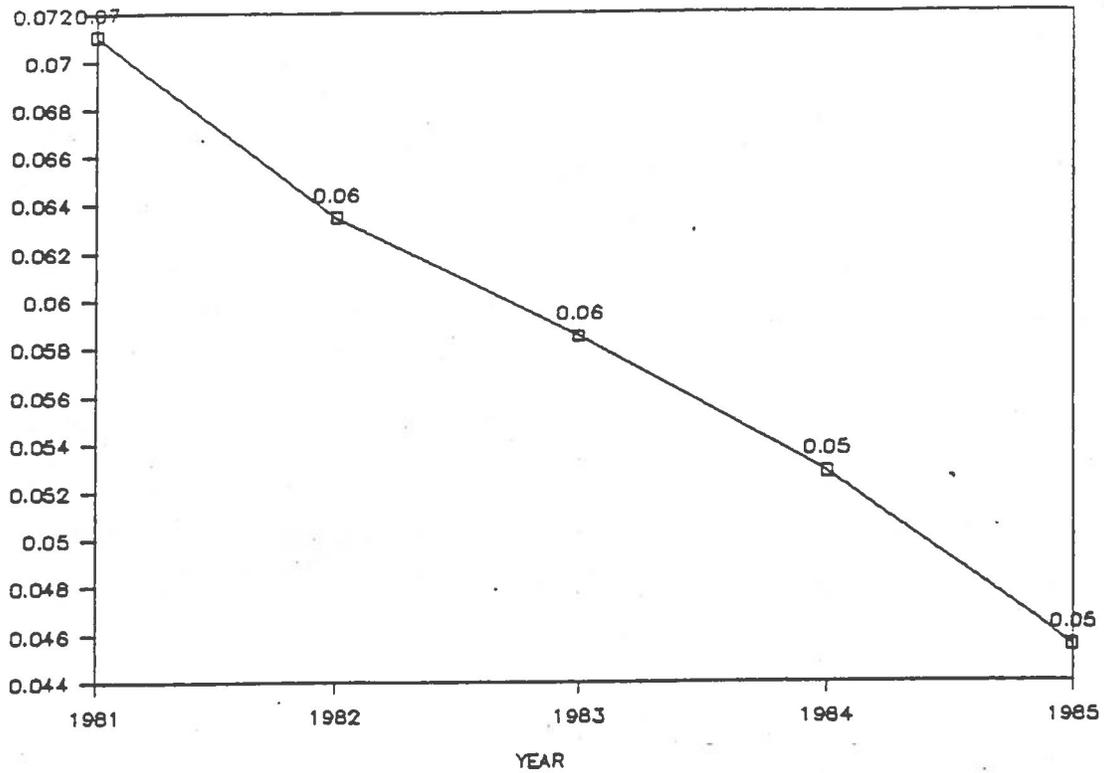
#### WORKSHEET INPUT

On 1-2-3 worksheet, input:  
Line 3 - Population data  
Line 21 - G.O Debt

#### INFORMATION SOURCES

- Population data - population estimate from state demographer
  - call Denver 866-2156
- G.O. Debt - local government audit (use principal amount only)
  - financial compendiums - obtain from DLG
  - financial data base on prime computer (use modem)

## G.O. DEBT AS % OF ASSESSED VALUATION

WORKSHEET INPUT

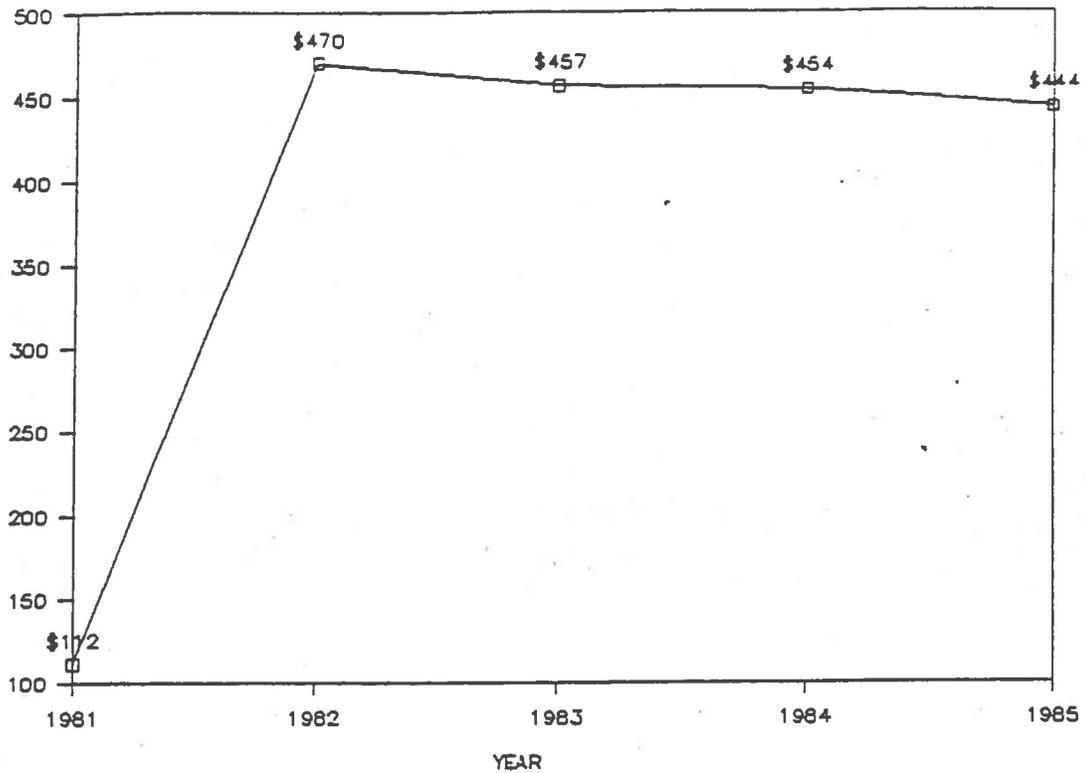
On 1-2-3 worksheet, input:  
 Line 4 - Valuation data  
 Line 21 - G.O Debt

INFORMATION SOURCES

Valuation data - See ASSVAL1.  
 G.O. Debt - local government audit (use principal amount only)  
 - financial compendiums - obtain from DLG  
 - financial data base on prime computer (use modem)

DEBT3

### TOTAL LONG-TERM DEBT PER CAPITA



#### WORKSHEET INPUT

On 1-2-3 worksheet, input:

Line 3 - Population

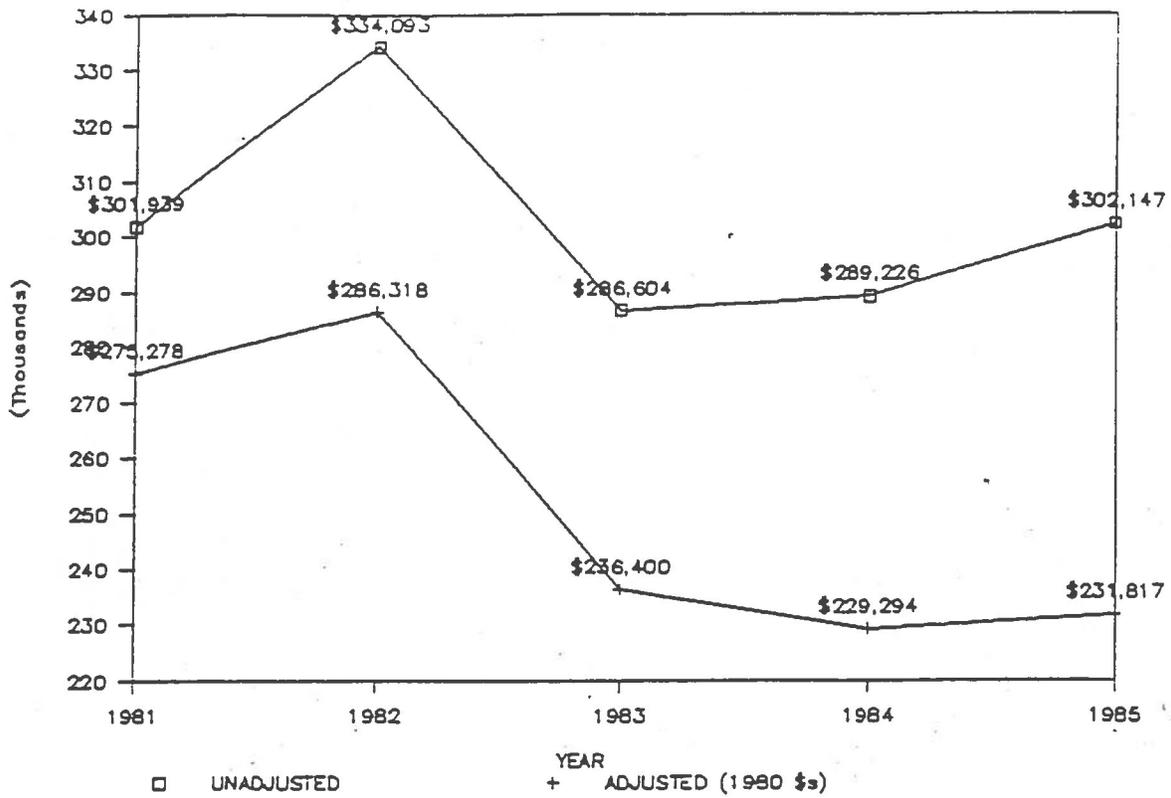
Line 22 - Total Revenue and G.O Debt(principal only)

#### INFORMATION SOURCES

Population data - See ASSVAL2

Total debt - See DEBT1

### GENERAL FUND REVENUES



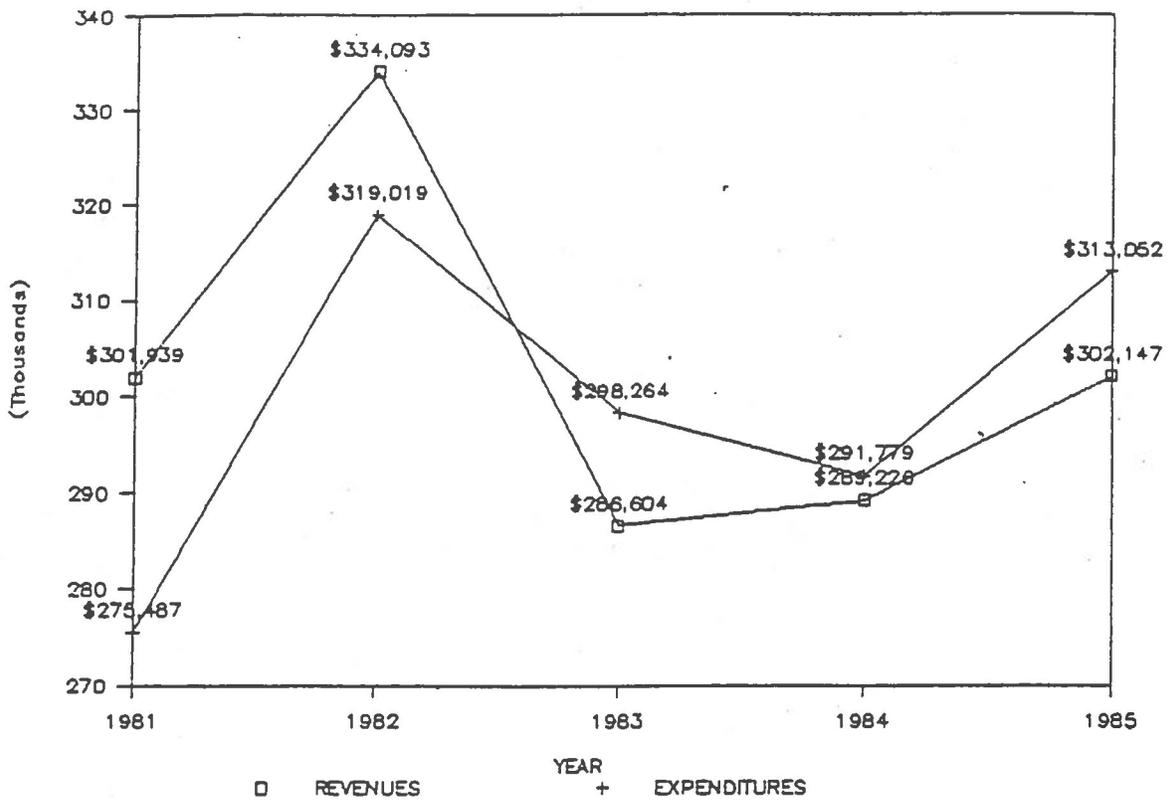
WORKSHEET INPUT

On 1-2-3 worksheet, input:  
 Line 23 - G.F. Revenues

INFORMATION SOURCES

G.F. Revenues - Local government audit

GENERAL FUND REVENUES VS. EXPENDITURES



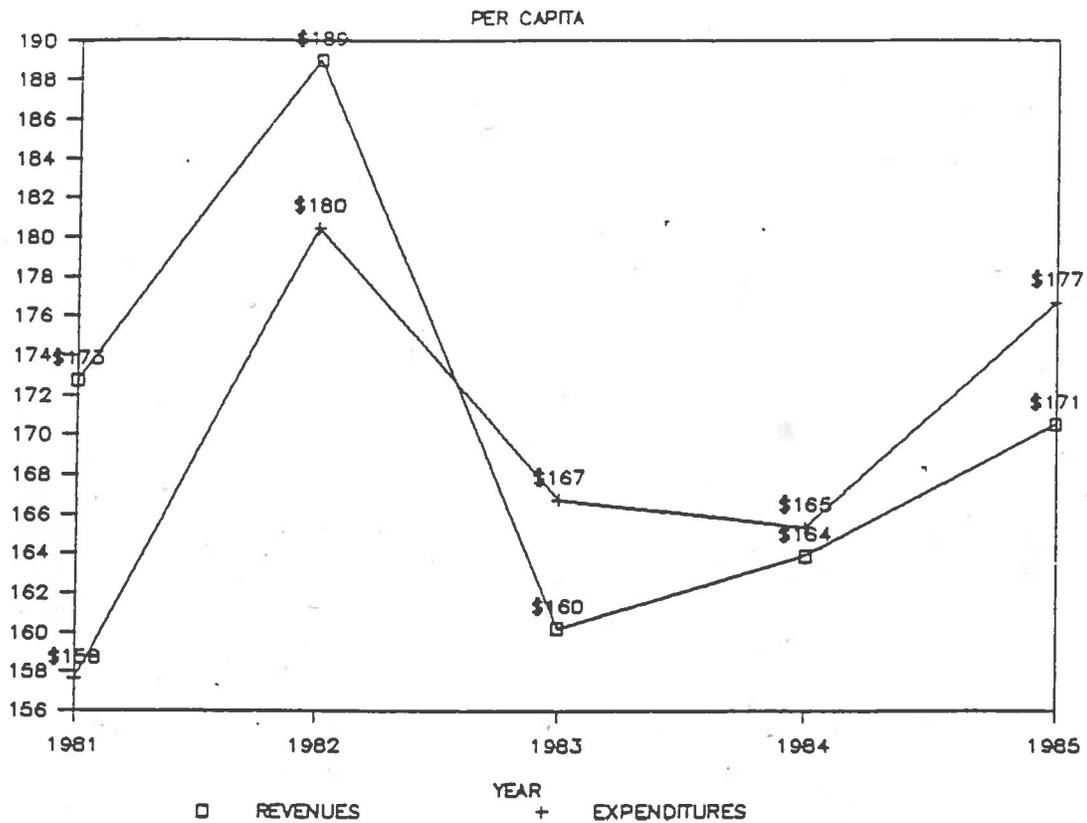
WORKSHEET INPUT

On 1-2-3 worksheet, input:  
 Line 23 - G.F. Revenues  
 Line 24 - G.F. Expenditures

INFORMATION SOURCES

G.F. Revenues - Local government audit  
 G.F. Expenditures - Local government audit

## GENERAL FUND REVENUES VS. EXPENDITURES



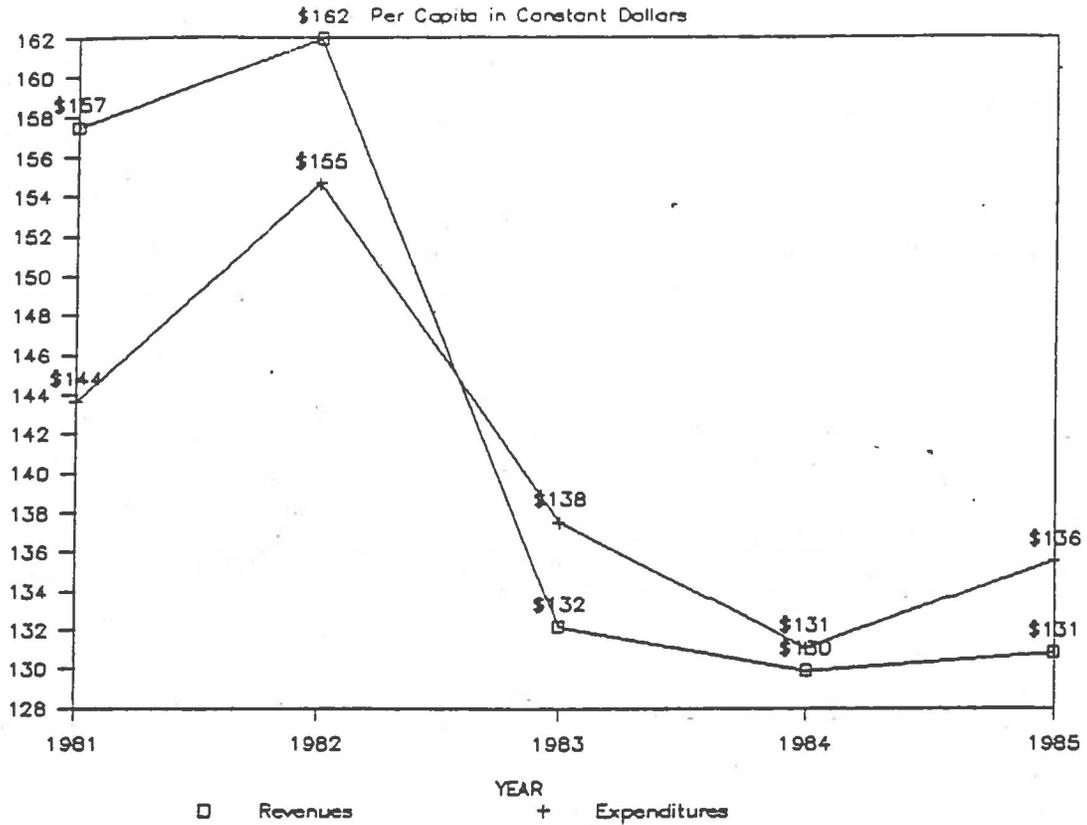
### WORKSHEET INPUT

On 1-2-3 worksheet, input:  
 Line 3 - Population  
 Line 23 - G.F. Revenues  
 Line 24 - G.F. Expenditures

### INFORMATION SOURCES

Population - See ASSVAL2  
 G.F. Revenues - Local government audit  
 G.F. Expenditures - Local government audit

### General Fund Revenues Vs. Expenditures



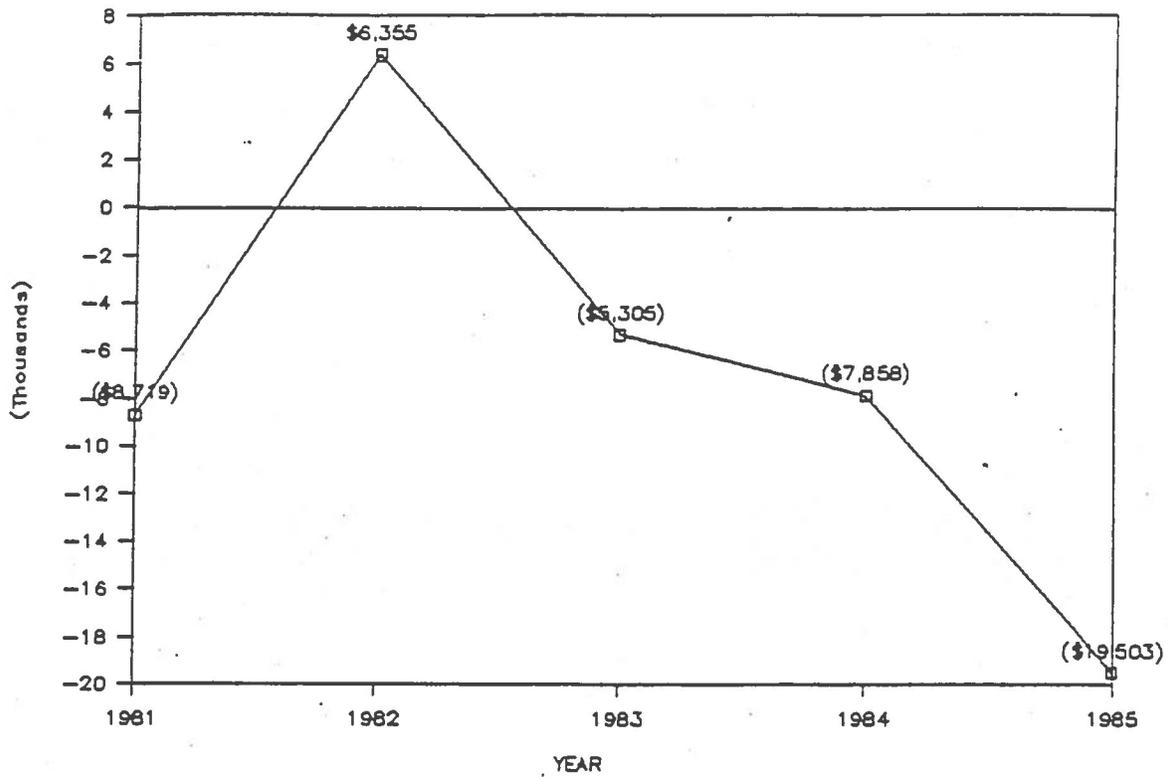
WORKSHEET INPUT

On 1-2-3 worksheet, input:  
 Line 3 - Population  
 Line 23 - G.F. Revenues  
 Line 24 - G.F. Expenditures

INFORMATION SOURCES

Population - See ASSVAL2  
 G.F. Revenues - Local government audit  
 G.F. Expenditures - Local government audit

### GENERAL FUND BALANCE



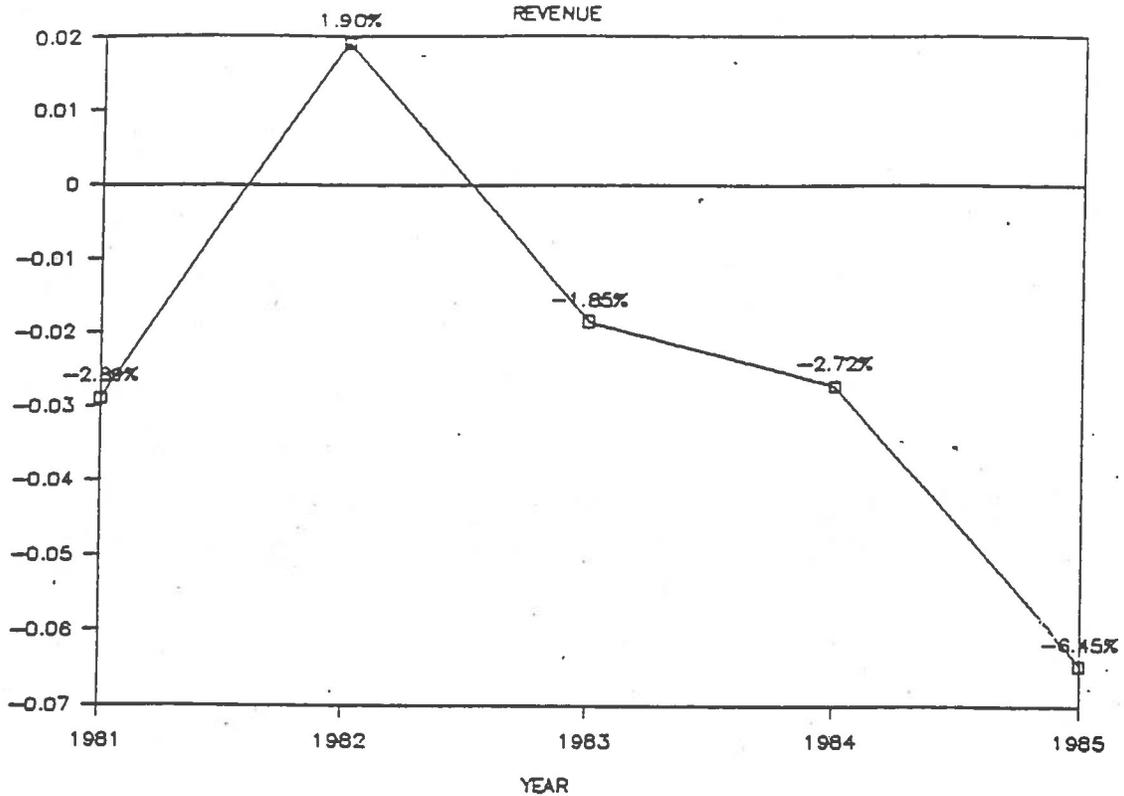
#### WORKSHEET INPUT

On 1-2-3 worksheet, input:  
Line 25 - G.F. Balance

#### INFORMATION SOURCES

G.F. Balance - Local Government Audit

### FUND BALANCE AS % OF GENERAL FUND



#### WORKSHEET INPUT

On 1-2-3 worksheet, input:  
Line 23 - G.F. Revenue  
Line 25 - G.F. Balance

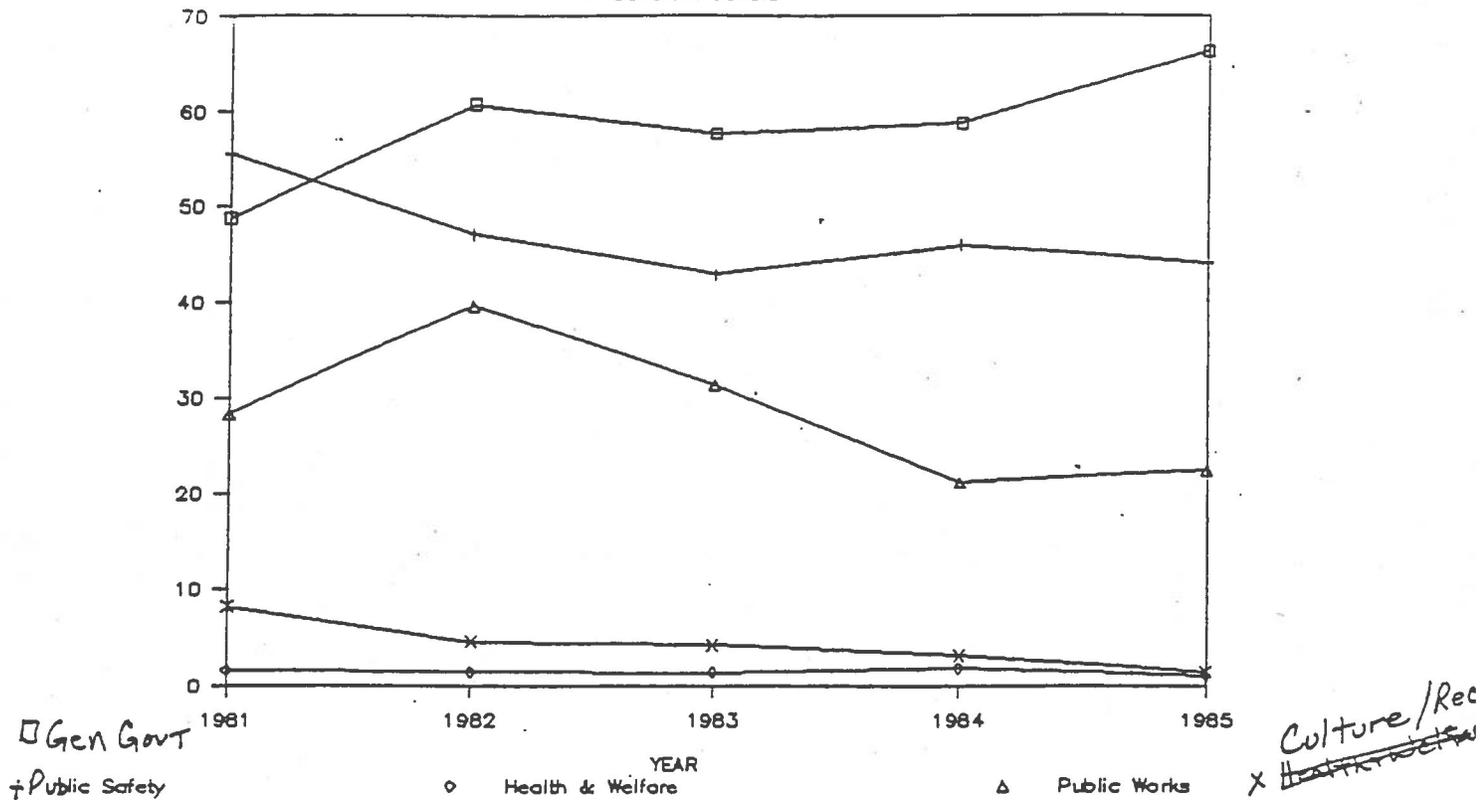
#### INFORMATION SOURCES

G.F. Balance - Local Government Audit  
G.F. Revenue - Local Government Audit

GENFUND7

## General Fund Departments Per Capita

In Constant Dollars



### WORKSHEET INPUT

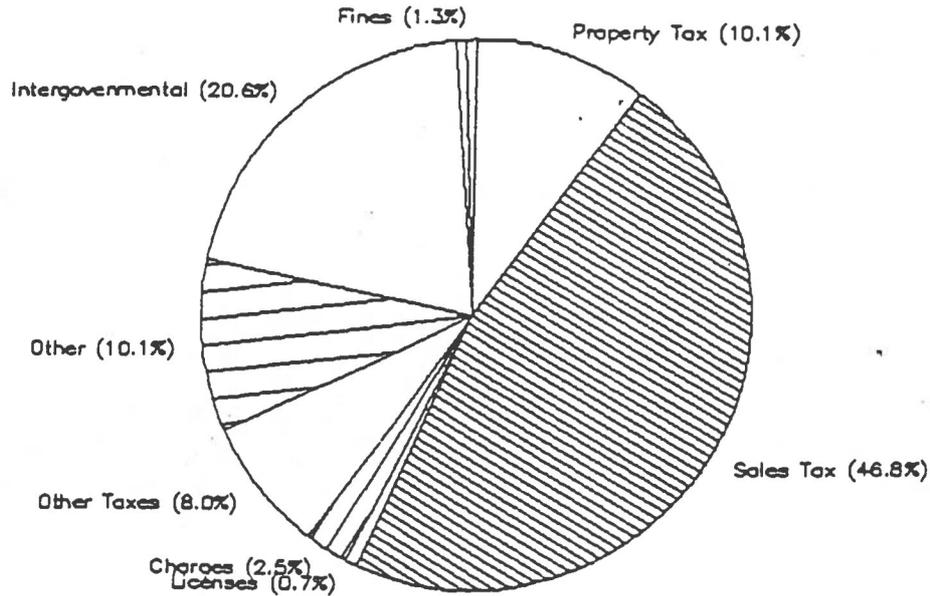
On 1-2-3 worksheet, input:

- Line 15 - General Government Expense
- Line 16 - Public Safety Expense
- Line 17 - Public Works Expense
- Line 18 - Health and Welfare Expense
- Line 19 - Parks and Recreation Expense
- Line 20 - Other (Fill in blank)

### INFORMATION SOURCES

All information found in local government audit

1981 GENERAL FUND REVENUE SOURCES



WORKSHEET INPUT

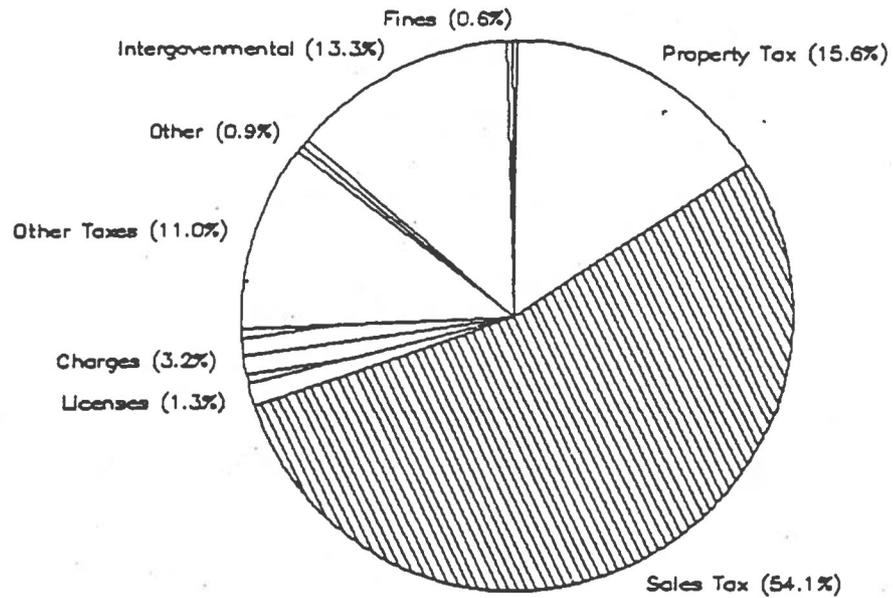
- On 1-2-3 worksheet, input:
- Line 7 - Property Tax Collected
  - Line 8 - Fines
  - Line 9 - Charges
  - Line 10 - Intergovernmental
  - Line 11 - Licenses
  - Line 12 - Other taxes
  - Line 13 - Miscellaneous
  - Line 14 - Sales/Use Tax (G.F. only)

INFORMATION SOURCES

All information found in 1981 local government audit

PIE2

## 1985 GENERAL FUND REVENUE SOURCES



### WORKSHEET INPUT

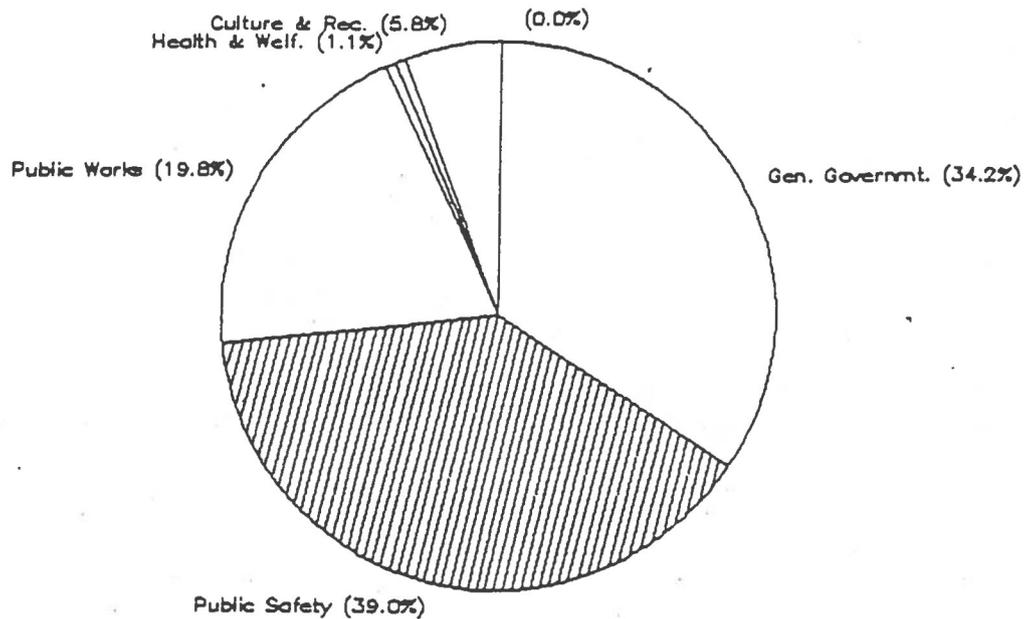
On 1-2-3 worksheet, input:  
Line 7 - Property Tax Collected  
Line 8 - Fines  
Line 9 - Charges  
Line 10 - Intergovernmental  
Line 11 - Licenses  
Line 12 - Other taxes  
Line 13 - Miscellaneous  
Line 14 - Sales/Use Tax (G.F. only)

### INFORMATION SOURCES

All information found in 1985 local government audit

PIE3

### 1981 GENERAL FUND EXPENDITURES



#### WORKSHEET INPUT

On 1-2-3 worksheet, input:

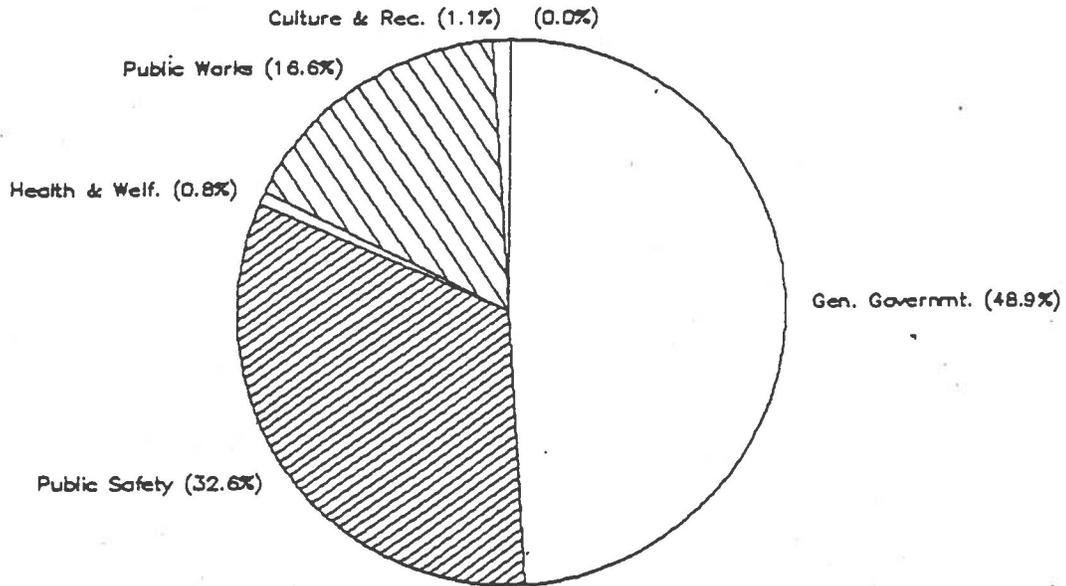
- Line 15 - General Government Expense
- Line 16 - Public Safety Expense
- Line 17 - Public Works Expense
- Line 18 - Health and Welfare Expense
- Line 19 - Parks and Recreation Expense
- Line 20 - Other (Fill in blank)

#### INFORMATION SOURCES

All information found in 1981 local government audit

PIE4

### 1985 GENERAL FUND EXPENDITURES



#### WORKSHEET INPUT

On 1-2-3 worksheet, input:

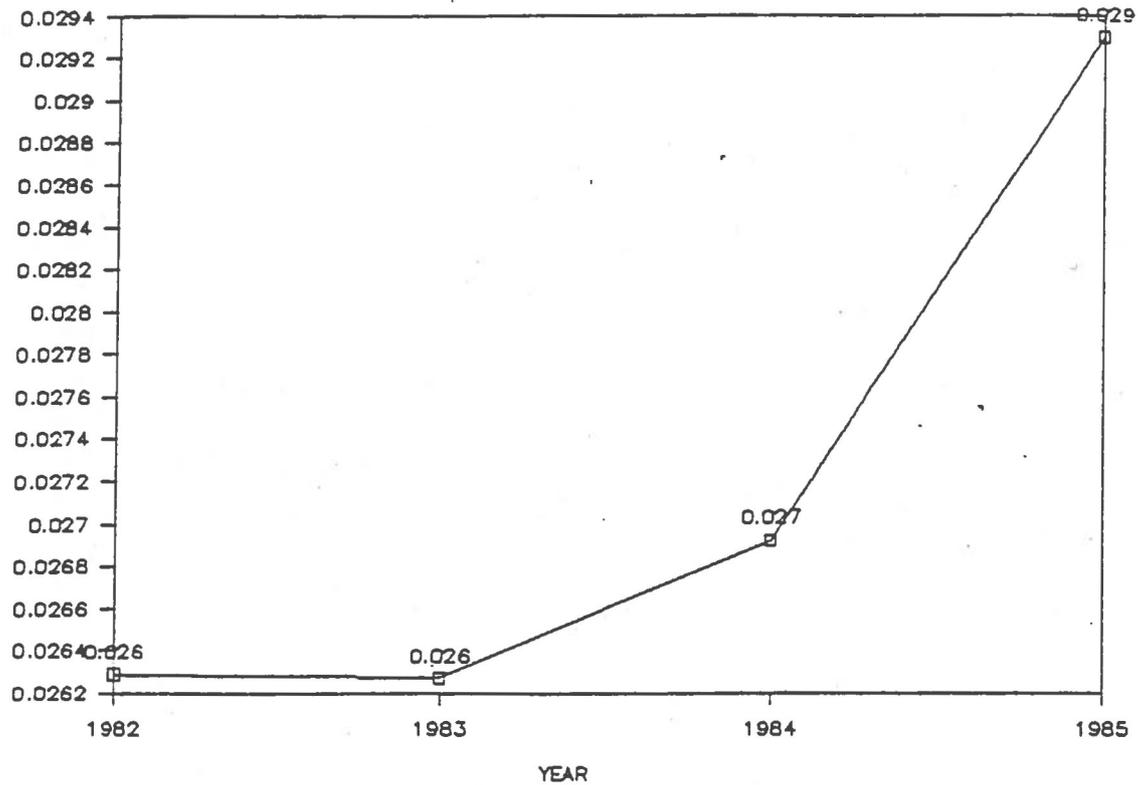
- Line 15 - General Government Expense
- Line 16 - Public Safety Expense
- Line 17 - Public Works Expense
- Line 18 - Health and Welfare Expense
- Line 19 - Parks and Recreation Expense
- Line 20 - Other (Fill in blank)

#### INFORMATION SOURCES

All information found in 1985 local government audit

PTAX

### % UNCOLLECTED PROPERTY TAX



#### WORKSHEET INPUT

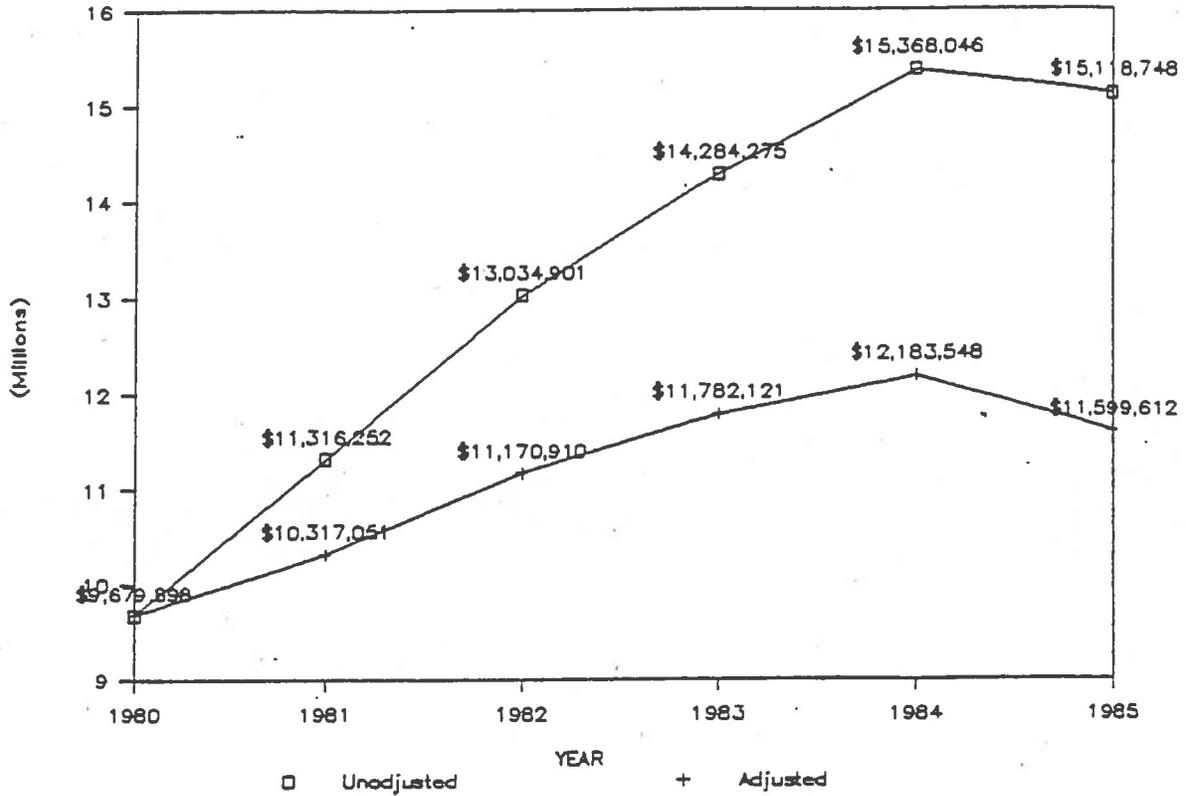
On 1-2-3 worksheet, input:  
Line 6 - Property tax budgeted  
Line 7 - Property tax collected

#### INFORMATION SOURCES

All information found in local government audit (G.F. only)

SALESTX1

## GROWTH IN RETAIL SALES



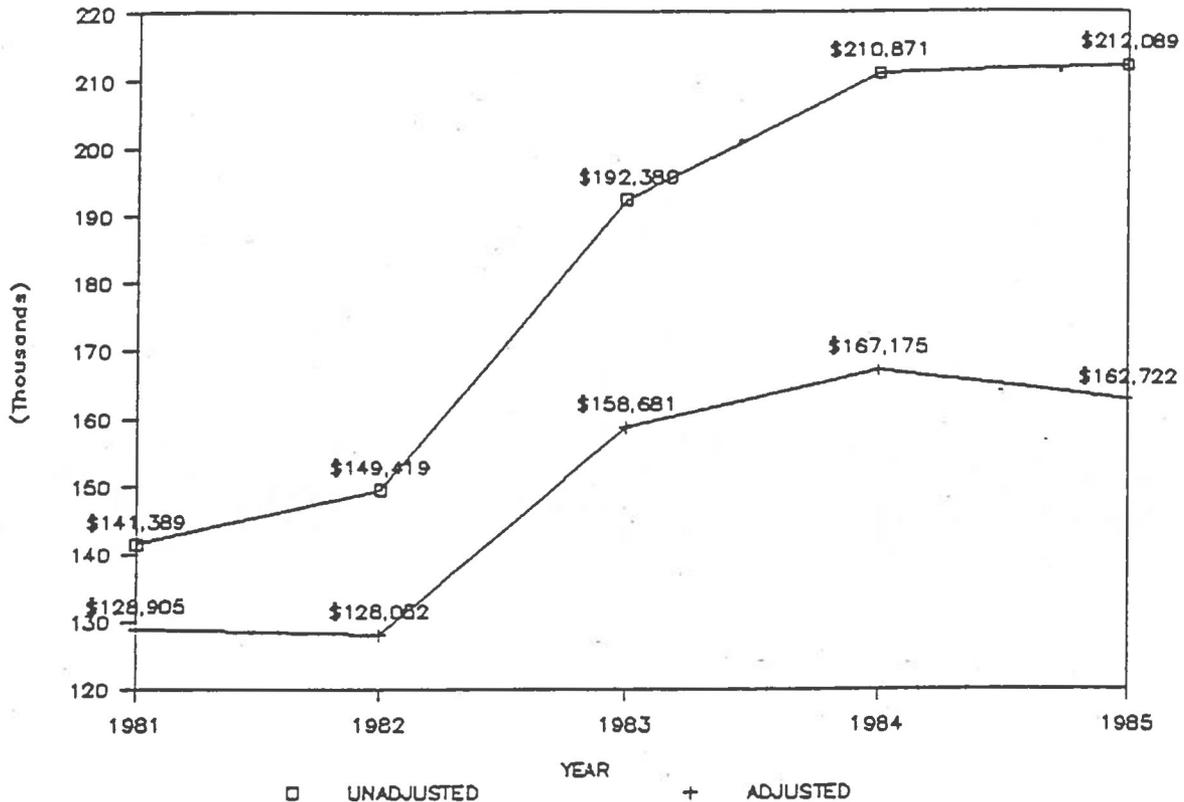
### WORKSHEET INPUT

On 1-2-3 worksheet, input:  
Line 5 - Retail sales

### INFORMATION SOURCES

Retail Sales - Dept. of Revenue annual (calendar) report  
- Financial compendiums - obtain from DLG  
- Financial data base on prime computer (use modem)

## SALES TAX REVENUE

WORKSHEET INPUT

On 1-2-3 worksheet, input:

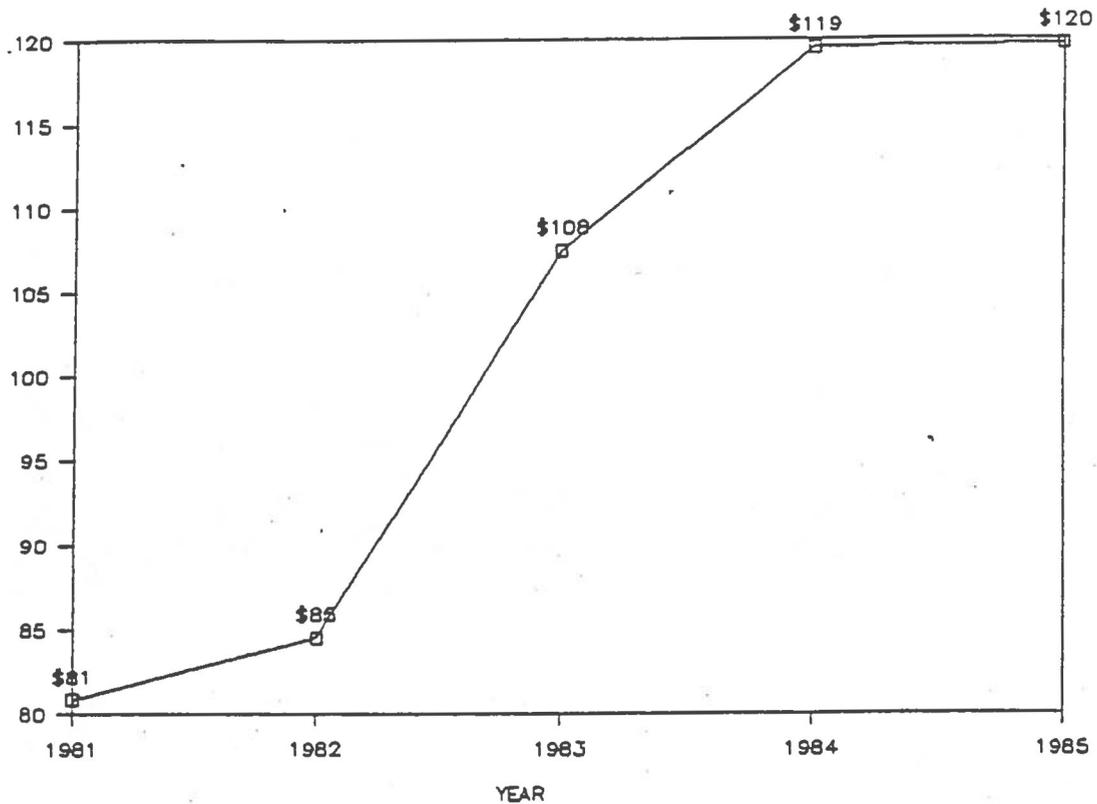
Line 14 - Sales tax revenues (will be G.F. only unless other sales tax revenue is added in)

INFORMATION SOURCES

- Sales Tax revenues - Local government audit (can separate G.F. and other sales tax revenue information)
- Financial compendiums - obtain from DLG (total sales tax revenue reported)
- Financial data base on prime computer (use modem - total sales tax revenue reported)

SALESTX3

### SALES TAX PER CAPITA



#### WORKSHEET INPUT

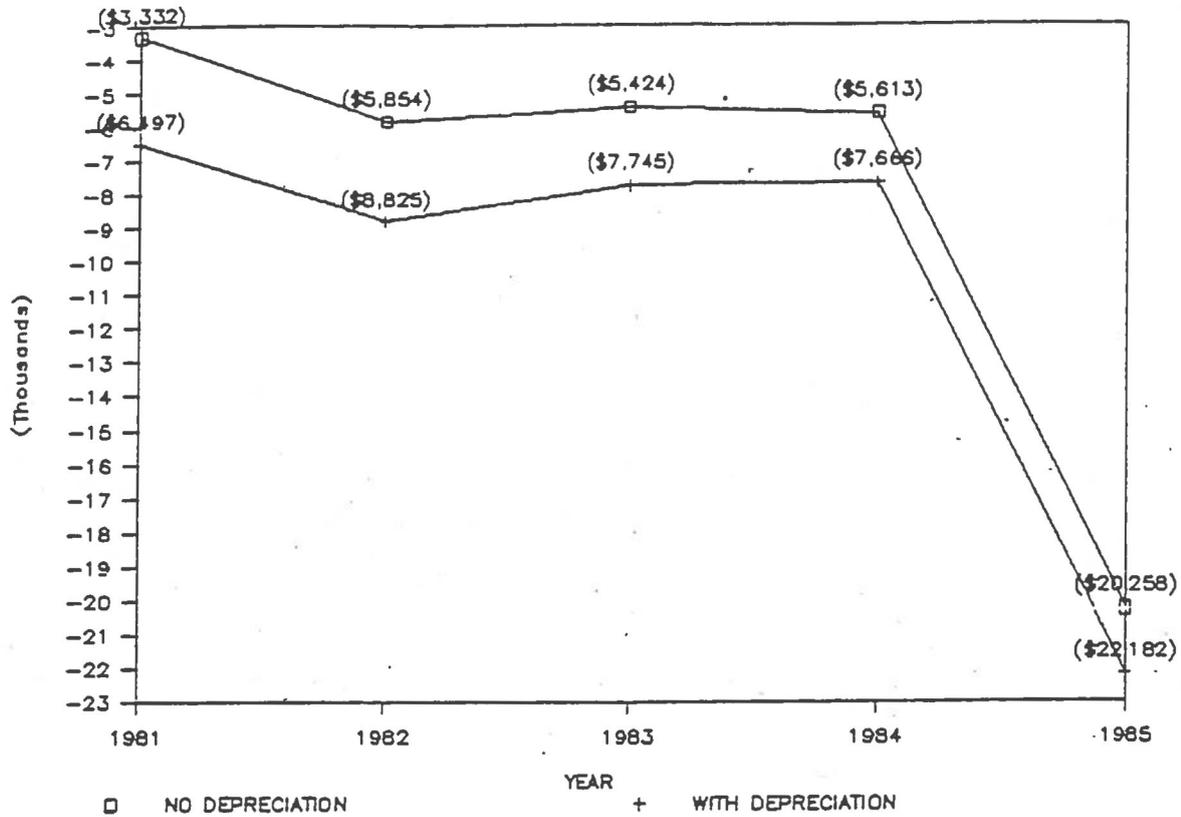
On 1-2-3 worksheet, input:  
Line 3 - Population  
Line 14 - Sales tax revenues

#### INFORMATION SOURCES

Population - See ASSVAL2  
Sales Tax revenues - Local government audit (can separate G.F. and other sales tax revenue information)  
- Financial compendiums - obtain from DLG (total sales tax revenue reported)  
- Financial data base on prime computer (use modem - total sales tax revenue reported)

SEWER1

### SEWER FUND OPERATING INCOME



#### WORKSHEET INPUT

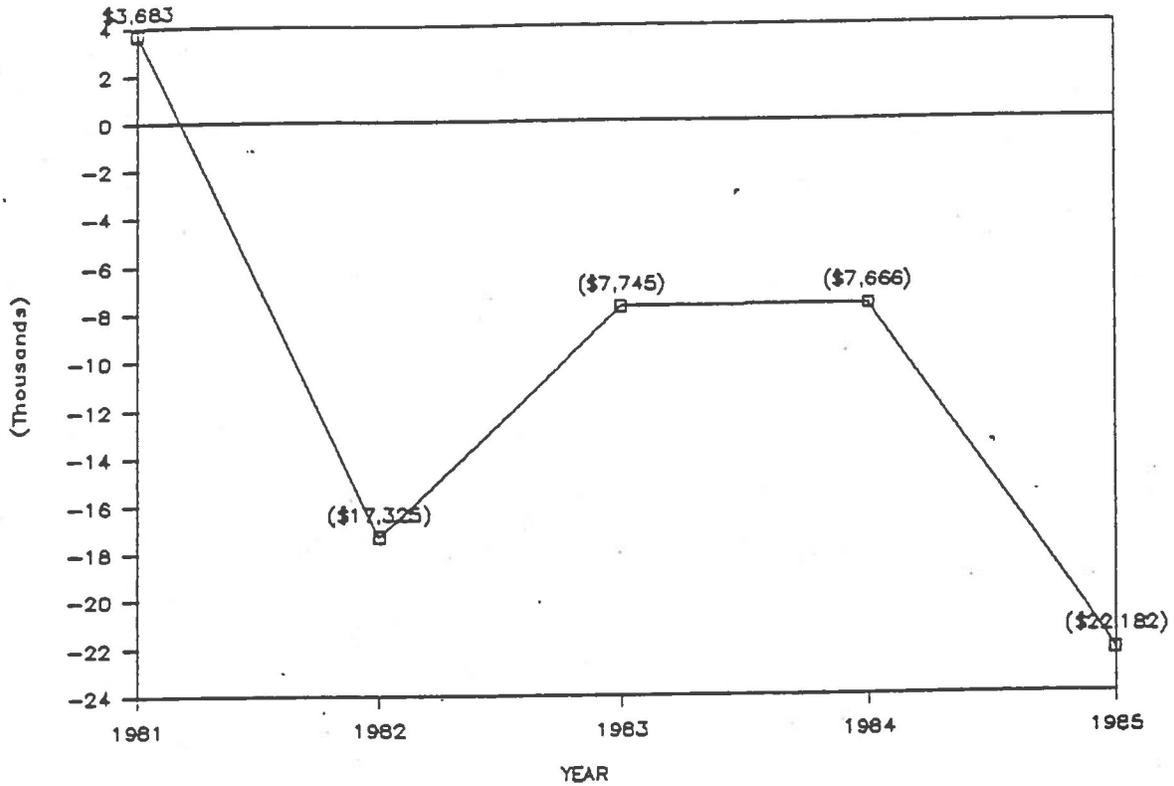
On 1-2-3 worksheet, input:  
Line 29 - S.F. without depreciation  
Line 30 - S.F. with depreciation

#### INFORMATION SOURCES

Find in local government audits under operating income in sewer fund.

SEWER2

## SEWER FUND NET INCOME



### WORKSHEET INPUT

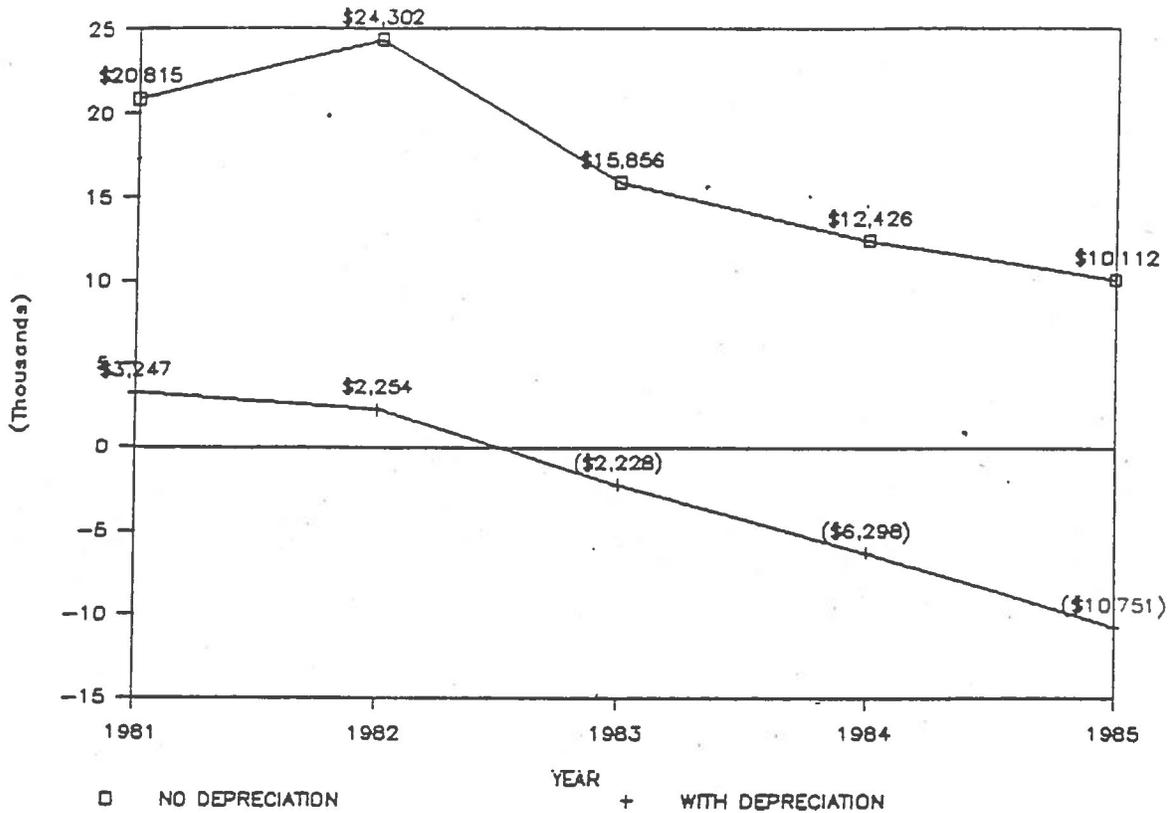
On 1-2-3 worksheet, input:  
Line 31 - S.F. Net income

### INFORMATION SOURCES

Find in local government audits under net income in sewer fund.

WATER1

### WATER FUND OPERATING INCOME



#### WORKSHEET INPUT

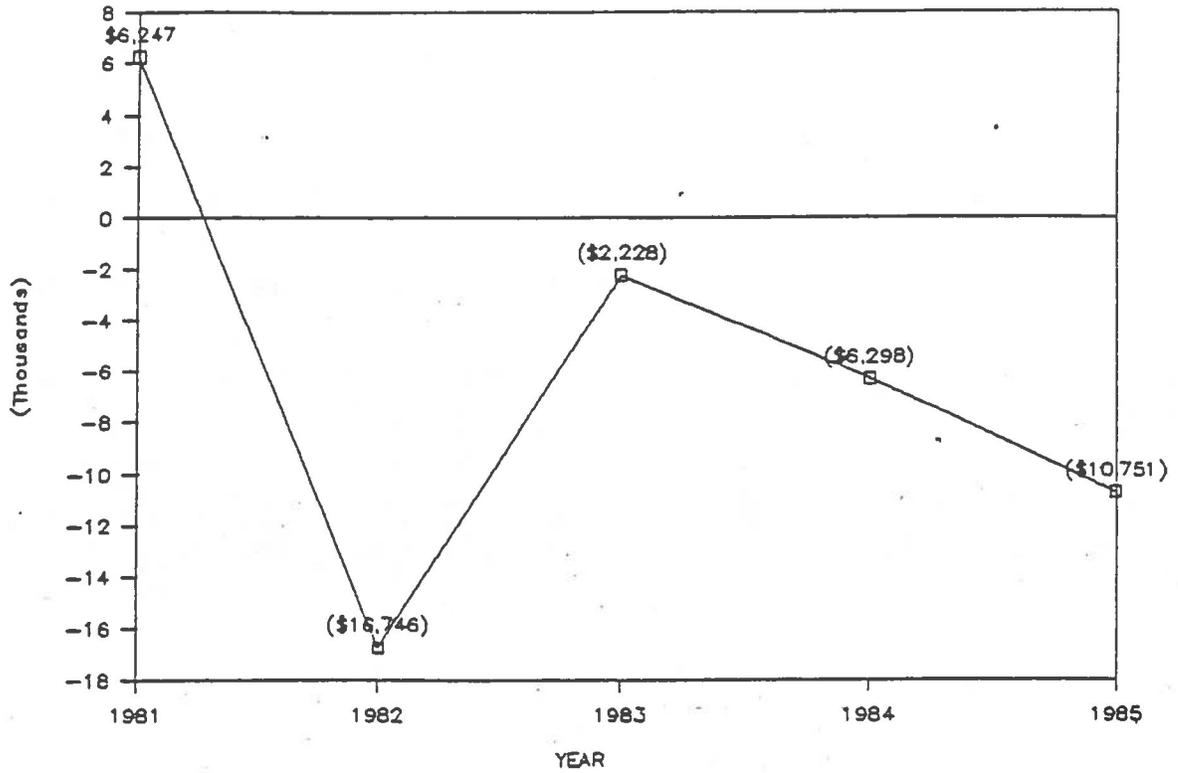
On 1-2-3 worksheet, input:  
Line 26 - W.F. without depreciation  
Line 27 - W.F. with depreciation

#### INFORMATION SOURCES

Find in local government audits under operating income in water fund.

WATER2

### WATER FUND NET INCOME



#### WORKSHEET INPUT

On 1-2-3 worksheet, input:  
Line 28 - W.F. Net income

#### INFORMATION SOURCES

Find in local government audits under net income in water fund.

ANALYSIS INFORMATION

## DESCRIPTION

Property value is important because most cities depend on property tax as a substantial portion of their income. If a city has a stable tax rate, the higher the aggregate property value, the higher the revenues generated. Cities experiencing population and economic growth are also likely to experience growth in property values in the short run on a per unit basis. This is because in the short run, the supply of housing is fixed and the increase in demand due to growth will force prices up. The reverse tends to be true for declining areas.

The extent to which declining property values affect city revenues will depend on the city's reliance on property taxes. The extent to which the decline will ripple through the city's economy and affect other revenues such as sales taxes is more difficult to determine. However, all of the economic and demographic factors are closely related. Most probably, decline in property values will not be a cause but rather a symptom of other underlying problems.

## SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following is a suggested starting point for this analysis.

- Is decline due to regional or national trends over which the city has no control? Will the decline have a negative effect on the city's revenues? Are contingency plans being made?
- Is the decline due to:
  - Decline in local business activity?
  - Decline in population?
- Is decline due to a deterioration in the city's capital plant? Can the capital plant be upgraded through:
  - Improved maintenance and replacement programs?
  - Better quality and more attractive construction?
  - Use of redevelopment and other long-term financing?
  - Use of one-time grant dollars?
  - Stimulation of private investment?
- Is decline due to a deterioration in city's housing stock? Can the housing stock be upgraded through:
  - Redevelopment programs?
  - Rehabilitation loans?
  - Housing grants?
  - Mortgage subsidies?
  - Code enforcement?
  - Special assessment districts?
  - Incentives for new development?

## DESCRIPTION

Another way to monitor the growth in debt is to measure it on a per capita basis. This is especially useful for cities that do not rely heavily on property taxes and that cannot easily compute a substitute revenue base for comparison. The per capita measure shows how growth in debt is changing relative to changes in population. As population increases, it would be expected that capital needs and, hence, long-term debt needs may increase. However, if long-term debt is increasing in the face of a stabilized or declining rate of population change, debt levels may be reaching or exceeding the city's ability to pay. The underlying assumption is that the city's revenue generating ability and ability to repay debt is directly related to its population level. This may not be true if the decline in population is caused by a decline in family size and not in households.

The underlying concern is that long-term debt should not exceed the city's resources for paying the debt. If this does occur, the city may have difficulty obtaining additional capital funds, may have to pay a higher rate of interest for them, and may have difficulty in repaying existing debt.

## CREDIT INDUSTRY BENCHMARKS

Signals are:

- G.O. debt exceeding 25 percent of assessed valuation.
- Overall debt exceeding \$1200 per capita.
- debt as a percentage of valuation 20 percent higher than previous year.
- debt as a percentage of valuation 50 percent higher than four years ago.
- One-year growth in level of debt exceeding 10 percent.
- Level of G.O. debt exceeding 90 percent of amount authorized by law.

## SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following is a suggested starting point for this analysis.

- Is population, assessed valuation, or other revenue base declining; or is long-term debt increasing?
- Why is long-term debt increasing?
  - Is the city becoming more reliant on long-term debt to finance capital projects? How much additional debt needs to be incurred in the next three to five years?
  - Are debt proceeds being used to fund operations?
  - Is the increase a continuing trend, or is it caused by a large amount of debt recently issued for a one-time-only capital project, such as a new municipal building?
  - Is long-term debt being increased to meet local matching requirements of intergovernmental capital project funding, and therefore, to provide desirable leverage for city funds?
- Does the city have a formal long-term debt policy that sets limits on aggregate debt in order to prevent an inadvertent debt overload?
- What was the amount of long-term debt prior to the increase? Was it low to moderate, or was the amount already straining the city's ability to pay?

## REVENUES

### DESCRIPTION

Examining per capita revenue shows how revenues are changing relative to changes in the level of population. As population increases, it might be expected that the need for services would increase proportionately, and, therefore, the level of per capita revenues should remain at least constant in real terms. If per capita revenues are decreasing, it could be expected that the city will be unable to maintain existing service levels unless it were to find new revenue sources or ways to save money. This reasoning assumes that the cost of services is directly related to population level.

When analyzing revenues, officials should develop trend lines for both (1) total revenues per capita and (2) any individual revenue which makes up 5 percent or more of total revenues. Examples of these would be property tax, sales tax, business licenses, transient occupancy taxes, fines, and user fees. Within the typical city's accounting records, these revenues may be segregated into their own fund or grouped within a larger fund such as a general or a special revenue fund. Accordingly, each fund should be broken down into its component revenues so that the revenues may be examined individually. If the city organizes its revenues into specific groups, such as restricted, unrestricted, or self-supporting revenues, then these groups can also be used as a supplemental focus of analysis.

### SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following questions are offered as a starting point for this analysis.

- Is the community experiencing general economic decline? Is decline a temporary or continuing trend?
- Is the decline related to changes in population?
  - Is the community losing population groups who historically generated the largest portions of revenues?
  - Is the community gaining population groups who are unable to generate the same level of revenues provided by the existing population?
- Is the decline due to problems inherent in the revenue structure?
  - Is the revenue structure overly dependent on inelastic revenues or revenues with unrealistic rate ceilings that are not responsive to increases in population, business activity, or inflation?
  - Are there state or local restrictions such as tax ceilings that prevent the community from instituting the appropriate taxes, fees, or charges? Can local restrictions be removed? Can the state be persuaded to remove its restrictions?
- Can revenues be increased by:
  - Reducing tax delinquencies?
  - Increasing fees and service charges?
  - Increasing fines and penalties?
  - Increasing licenses and permits?
  - Updating property assessments?
  - Revising revenue collection procedures?
  - Charging for use of facilities, equipment, or personnel?

- Establishing special assessment districts?
- Investing a greater proportion of idle cash?
- Selling surplus property or equipment?
- Securing special-purpose or grant funding from public or private agencies?

**If revenues per capita are increasing, the following issues should be considered:**

- Is it reasonable to assume that the increased levels of revenues will continue to be available in future years? If not, is the city careful when using these revenues for new programs that will require continuing funding?
- Is the increase in revenues per capita a signal that costs will be increasing in future years as would be the case if the new revenues were due to an increase in building construction? Will the additional revenues cover the additional costs? If not, is there a plan for funding them?
- Is the increase in revenues per capita due to a decline in population rather than a decline in revenues?
  - Will the decline in population eventually result in a decline in revenues?
  - Is the decline in population accompanied by a larger number of smaller households? Will the increase in number of households result in higher service cost to the city?
- Do the increased revenues per capita represent an increase in tax burden as measured by comparing changes in revenues per capita to changes in personal income, business income, or other appropriate measures of community wealth? If tax burden is increasing, will residents and business owners be less willing or able to pay?

## EXPENDITURES

### DESCRIPTION

Changes in expenditures per capita reflect changes in expenditures relative to changes in population. Increasing per capita expenditures can indicate that the cost of providing services is outstripping the community's ability to pay, especially if spending is increasing faster than the community's personal income or other relevant tax base. From a different perspective, if the increase in spending is greater than would be expected from continued inflation and cannot be explained by the addition of new services, it can be an indicator of declining productivity—that is, the city is spending more real dollars to support the same level of services.

As with revenues per capita, analysis of expenditures should focus first on total expenditures and then on the changes of the individual expenditure categories. Expenditures can be broken down into fund (general fund, enterprise fund, etc.), into function (police, fire, etc.), into organizational unit (personnel department, public works department, etc.), or into object of expenditures (salaries, contractual services, supplies, capital outlays, etc.). Differentiations can also be made between operating and capital expenditures. This type of analysis will help identify where costs are rising.

### SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following is a suggested starting point for this analysis.

- Is increase due to increased levels of existing services as opposed to the addition of new services? Can new levels of service be identified and justified in light of competing priorities for funds? Are there increased revenues to pay for these increased services? If not, should existing services be reduced?
- Is the increase due to an increase in fixed costs such as debt service or externally mandated services over which the city has little control, or is it due to increases in programs that the city can cut back at its own discretion?
- Is the increase due to an increase in an externally funded program that is currently fully funded and will be for the duration of the program, or is it due to externally funded programs for which only seed money is initially available and for which the city would have to assume funding responsibility in future years? If the latter, how will these programs be funded in the future?
- Is the increase due to an increase in mandated services? Can funding be obtained from the jurisdiction that mandates the services?
- If the increases in per capita expenditures cannot be explained by the addition of new services, is personnel productivity or service efficiency declining? Can changes in technology or management practices be used to deal with this?
- Is increase due to construction of capital facilities which were funded by debt, meaning that the expenditure burden on city revenues will be spread out over many years? Will the debt service plus operating costs of the new facilities put strain on future years budgets?
- Are expenditures per capita rising faster than revenues per capita? Is this straining the city's ability to pay? Are fund balances and reserves being used to balance budget?
- Are expenditures per capita rising faster than personal income per capita or increases in business activity? Is this straining the ability of citizens and businesses to pay taxes?

- Can expenditures be reduced by:
  - Consolidating support services and taking advantage of economics of scale?
  - Contracting services?
  - Replacing full-time technical staff with on-call consultants or service bureaus?
  - Cross training personnel to avoid duplication of function and reduce idle time?
  - Transferring functions to other levels of government?
  - Eliminating programs that were important in the past but are not important now?
  - Pooling funds with other jurisdictions for self-insuring, investing idle funds, etc.?
  - Entering into mutual aid, service, or cooperative purchasing agreements with other jurisdictions?
  - Using advanced management controls, information systems, or technology?

## OPERATING DEFICITS

### DESCRIPTION

An operating deficit occurs when current expenditures exceed current revenues. This does not necessarily mean the budget will be out of balance ("budget deficit") because reserves ("fund balances") from prior years can be used to cover the difference. It does mean that, at least during the current year, the city is spending more than it receives. This can occur because of an emergency such as a natural catastrophe that requires a large immediate outlay. Or it can occur as a result of a conscious policy to use periodically surplus fund balances that have accumulated over a past year. The existence of an operating deficit in any one year may not be cause for concern, but frequent and increasing deficits can indicate that current revenues are not supporting current expenditures and serious problems may lie ahead.

Operating deficits are not always easy to spot through budgetary analysis because they can be temporarily financed by short-term loans or by an accounting transaction that, for example, unjustifiably accrues revenues from a future period or transfers surplus fund balances from another fund. When looking for operating deficits, an analyst should consider each fund separately so that a surplus in one fund will not hide a deficit in another. Analyzing funds separately will also help to pinpoint emerging problems.

### CREDIT INDUSTRY BENCHMARKS

A current-year operating deficit would be considered a minor warning signal, and the reasons and manner of funding would be carefully looked at before it was considered a negative factor. However, the following situations would be looked at with considerably more attention and would probably be considered negative factors.

- Two consecutive years of operating fund deficit.
- A current operating fund deficit greater than the previous year.
- A current operating fund deficit in two or more of the last five years.
- An abnormally large deficit in any one year of more than 5 to 10 percent.

### SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following is a suggested starting point for this analysis.

- Was the deficit anticipated during budget preparation? Is it expected to continue? Will there be surpluses or other sources of funding available?
- Is the deficit being funded by borrowing from surpluses of other funds such as a utility fund, a special reserve fund, or a debt fund? Can these other funds afford the loan without creating additional problems at a later date?
- Was the deficit due to revenue shortfalls?
- Was the deficit a result of expenditure overruns? Was this due to inaccurate expenditure estimates at budget time or lack of effective expenditure controls during the subsequent year? Can better practices be instituted?
- Was the deficit due to unexpected emergencies? Were there sufficient reserves or expenditure contingency plans to deal with the emergency? Are sufficient reserves left for future emergencies?

## FUND BALANCES

### DESCRIPTION

Fund balances can also be thought of as a reserve, although the entry on a city's annual report labeled "fund balance" is not always synonymous with "available for appropriation." The report may show subsidiary accounts that are encumbrances on the fund balance, such as "Reserve for Prior Year's Unexpended Appropriations."

The level of a city's fund balances may determine its ability to withstand unexpected financial emergencies, such as may result from natural disasters, revenue shortfalls, or steep rises in inflation. It also may determine a city's ability to accumulate funds for large-scale purchases, such as fire trucks, without having to borrow. In states that allow it, cities usually try to operate each year at a small surplus in order to maintain positive fund balances and, thus, maintain adequate reserves.

Nonspecific or general reserves are usually carried on the city books as "fund balance" in the general operating fund. Sometimes special reserves are maintained in a separate fund. For example, reserves for equipment replacements are often kept in "fund balance" in the internal service fund, which is used to charge the operating departments for the use of the equipment. Reserves can also be appropriated as a budget item in some form of contingency account. Regardless of the way in which reserves are recorded, an unplanned decline can mean that the city will not be able to meet a future need. Analysts should examine each individual fund in which reserves are established.

### SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following is a suggested starting point for this analysis.

- Are fund balances dropping lower than the city considers desirable? Can they be rebuilt?
- Are fund balances being used to subsidize operating deficits?
- Are reserves being used for purposes other than what was intended?

## DESCRIPTION

Intergovernmental revenues are any revenues received from another governmental entity. They are important to analyze because an overdependence on intergovernmental revenues can have an adverse impact on financial condition. The conditions or "strings" that the external source attaches to these revenues may prove too costly, especially if these conditions are changed in the future after the city has developed a dependence on the program. An example is the audit requirement that has been added to the use of general revenue sharing. In addition, the external source may withdraw the funds and leave the city with the dilemma of cutting programs or paying for them out of the general fund. This occurred with the federal countercyclical grants of the 1970s.

Nevertheless, a municipality might want to maximize its use of intergovernmental revenues consistent with its service priorities and financial condition. For example, a city might want to maximize intergovernmental revenues to finance a mandated service, or to fund a one-time capital project. The overriding concern in analyzing intergovernmental revenues is to determine whether the city is controlling its use of the external revenues or whether these revenues are controlling the city.

## SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following is a suggested starting point for this analysis.

- Has the city created a dependence on the intergovernmental revenues to fund ongoing basic city services that can result in considerable disruption if the revenues were to cease? Have contingency plans been made?
- By accepting fixed-term grants for programs that it will not be able to afford when the grant ends, is the city creating unrealistically high community expectations? What will be the political, social, and economic consequences if a program is discontinued?
- Do the revenues have restrictions on their use that run counter to the city's priorities?
- Do the revenues provide seed money for programs that the city might not otherwise offer and, therefore, create a future expenditure liability that may have to be picked up by the general fund? Is the amount and timing of this liability calculated before accepting each new grant? Does a city report show this information clearly and in one place?
- Are "matching funds" for intergovernmental revenues increasing as a percentage of operating expenditures? Do these grants represent priority needs or are they applied for because of the "free" money associated with them?
- Are "matching funds" increasing as a percentage of grant expenditures indicating that the initial seed period of grants may have passed requiring larger support from the city's general funds?
- Are the intergovernmental revenues authorized by ongoing agreements or formulas, as with the sharing of sales taxes between a state and a city? Can the agreements and formulas be examined to determine the probability that the revenues will continue and in what amount?
- Are the intergovernmental revenues subject to periodic political review and reappropriation by the grantor body, as with many federal grants? What is the likelihood the revenues will continue? If low, are there contingency plans? Can the programs be cut?
- What is the dollar commitment of the city in terms of matching funds, additional reporting requirements, or unreimbursed overhead costs? Are all these costs anticipated, budgeted, and recorded?

## UNCOLLECTED PROPERTY TAXES

### DESCRIPTION

Every year, a certain percentage of property taxes go uncollected because property owners are unable to pay them. As this percentage increases over time, it may be an indication of overall decline in the city's economic health. This has occurred in a number of northeastern communities that are especially sensitive to property tax collection because the property tax makes up an extremely large portion of their revenues.

### CREDIT INDUSTRY BENCHMARKS

Credit rating firms consider that a city will normally be unable to collect about 2 or 3 percent of its property taxes each year. If uncollected property taxes rise to more than about 5 to 8 percent, rating firms consider this a negative factor because it signals potential problems in the stability of the property tax base. Rating firms also consider it a negative factor if the rate of delinquency rises for two consecutive years.

### SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following is a suggested starting point for this analysis.

- Is general economic decline affecting taxpayers' ability to make the tax payments? Is there an increasing proportion of low- or fixed-income property owners who are having difficulty paying *increasing* property tax bills? Can an optional installment payment process be implemented to lessen the impact of one or two large payments?
- Is there an increasing proportion of distressed properties within the municipality? Can rehabilitation programs be initiated? Can new uses be found for property whose original use is no longer economically viable?
- Are collection procedures adequate, especially in regard to delinquent taxes?
- Is the percentage of uncollected taxes higher than assumed in revenue estimates?
- Are penalty and interest charges for delinquent taxes substantially below short-term, commercial interest rates? If so, taxpayers may use nonpayment as a source of business and personal borrowing. Can delinquency penalties be tied to the prime interest rate or other short-term interest rate to discourage this? Can advertising of delinquencies be used to discourage this?
- Is the time lag between the due date for property tax payments and the date of lien foreclosure sufficiently short so as not to encourage delinquent property tax payments?

## SALES TAXES

### DESCRIPTION

Elastic revenues are ones whose yields are highly responsive to changes in the economic base and inflation. As economic base and inflation go up, elastic revenues would go up in roughly the same proportion and vice versa. A good example is a sales tax, which during good economic times increases along with the increase in retail business and declines during poor times. Inelastic revenues, such as fixed license fees or user charges, are ones whose yields are relatively unresponsive to changes in economic conditions. The yields from these revenues usually lag behind economic growth and inflation because local legislatures are often reluctant to increase them each year. Property tax can also be inelastic, especially in periods of economic growth, if properties are not reassessed frequently.

It is to a city's advantage to have a balance between elastic and inelastic revenues so that it would fare reasonably well with either a decrease or increase in tax base or inflation. During inflation, it is to a city's advantage to have a high percentage of elastic revenues. This is because inflation pushes up the city's revenue yield along with the increase in the prices the city must pay. As the percentage of elastic revenues declines, the city becomes more vulnerable in periods of inflation because the inflation is pushing up the price of services but not the yields of new revenues. The reverse is also true, but significant deflation has seldom occurred in recent years.

During a recession it would be to a city's advantage to have a high percentage of revenues which were inelastic in respect to tax base. This would insulate it to some degree from the reduced yield it may receive during a recession from, for example, a retail sales tax.

### SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following is a suggested starting point for this analysis.

- Are revenues heavily reliant on taxes with inelastic bases? Can more elastic taxes, such as income or sales tax, be instituted or increased?
- If the city has a sales tax, can the sales tax be extended to additional goods and services whose sales and prices respond more directly to changes in economic conditions?
- Has general economic decline or outmigration of population or businesses created a decline in the elastic portion of the city's revenue bases? Can redevelopment programs address this?
- Are there local restrictions on taxes that limit the elasticity of the revenue structure, such as restrictions on the source taxed, the amount collected, or the rate charged? Can these restrictions be removed?
- Can existing inelastic taxes and fees be made more elastic by more frequent property assessments, routine increases in user's fees, or similar modifications in revenue administration?

## ENTERPRISE OPERATING FUNDS

### DESCRIPTION

User charge coverage refers to whether or not fees and charges cover the entire cost of providing a service. This concept can be applied to enterprise programs, such as water or sanitation service, or to general fund programs, such as recreation or inspection services.

As coverage declines, the burden on other revenues to support the services increases. Because the typical municipal accounting system does not employ cost accounting techniques, it is especially easy for inflation and other factors to erode the user charge coverage without the city management realizing its extent. For this reason, costs and fees should be reviewed frequently. If overall user charge coverage is decreasing, a detailed analysis of each charge should be made to pinpoint the sources.

### SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following is a suggested starting point for this analysis.

- Are fees and user charges set lower than costs of providing the service? If so, is this because:
  - The full costs are not considered?
  - The charge is not reviewed frequently enough to take into account inflation and other expenditure pressures?
  - There are social or programmatic reasons not to increase the charge or there is a conscious decision not to cover 100 percent of the service costs?
  - State or other laws inhibit the adjustment of charges?
  
- Is user charge declining because the demand for service is decreasing? Is this due to:
  - A decrease in the need for services?
  - A decrease in the quality of services provided?
  - An increase in costs?
  - Inadequate marketing?
  
- Are cost control and revenue collection procedures effective?

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## DEPRECIATION

### DESCRIPTION

Depreciation is the mechanism by which a cost is associated with the use of a fixed asset over its estimated useful life. Depreciation is usually recorded only in enterprise funds and internal service funds. Total depreciation cost typically remains a relatively stable proportion of the cost of the entity's fixed assets. The reason is that older assets, which are fully depreciated, are usually removed from service and newer assets take their place.

If the depreciation costs start to decline as a proportion of the fixed asset cost, the assets on hand are probably being used beyond their estimated useful life.

This would not be the case, however, if the reason for the decline was that the estimated useful life had been initially underestimated or that the scale of operations had been reduced. However, if this ratio is declining because obsolete assets are not being replaced, it can indicate that the enterprise or internal service funds lack the resources to remain financially solvent.

### SUGGESTIONS FOR ANALYSIS

If the above trend is observed, a city should try to identify the causes (why is it happening), assess the significance (is it important), and devise action strategies (what can be done). The following is a suggested starting point for this analysis.

- Were the estimated lives of the assets initially understated, thereby creating a premature decline in this ratio? Should they be reassessed?
- Has the scale of operations in the enterprise or internal service fund declined, thereby requiring less depreciation charges? Should depreciation charges be re-evaluated?
- Are the assets in the enterprise and internal service fund being used past their useful life?
  - Is this increasing operating costs?
  - Is this lowering the quality of services being delivered?
- What is the extent of the unfunded liability compared with the need to replace obsolete assets? How will it be funded?
  - Are there reserves that can be drawn against?
  - Can revenue bonds be issued?
  - Can the city's general fund make a loan or provide a direct subsidy?